HIGHWAY WORK PROPOSAL

Proposal Number: 1 8

Wisconsin Department of Transportation
DT1502 4/2004 s.66.29(7) Wis. Stats.

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Racine	3180-10-70		Burlington Bypass STH 83 (South) to STH 36/83 (North) Paving	STH 11

ADDENDUM REQUIRED

ATTACHED AT BACK

This proposal, submitted by the undersigned bidder to the Wisconsin Department of Transportation, is in accordance with the advertised request for proposals. The bidder is to furnish and deliver all materials, and to perform all work for the improvement of the designated project in the time specified, in accordance with the appended Proposal Requirements and Conditions.

Proposal Guaranty Required, $ 100,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: July 10, 2007 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time October 31, 2008	
Assigned Disadvantaged Business Enterprise Goal %	This contract is exempt from federal oversight.

This certifies that the undersigned bidder, duly sworn, is an authorized representative of the firm named above; that the bidder has examined and carefully prepared the bid from the plans, Highway Work Proposal, and all addenda, and has checked the same in detail before submitting this proposal or bid; and that the bidder or agents, officer, or employees have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal bid.

Do not sign, notarize, or submit this Highway Work Proposal when submitting an electronic bid on the Internet.

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State Wisconsin)

(Date Commission Expires)

Notary Seal

(Bidder Signature)

(Print or Type Bidder Name)

(Bidder Title)

For Department Use Only

Type of Work Grading, paving, drainage structures, dense graded base, concrete curb and gutter, asphaltic concrete pavement, traffic signals, Structures B-51-95 and B-51-101, box culvert extension C-51-22, and incidentals.	
Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with August 2005 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

The bidder, signing and submitting this proposal, agrees and declares as a condition thereof, to be bound by the following conditions and requirements.

The bidder declares that they have carefully examined the site of, and the proposal, plans, specifications and contract forms for the work contemplated, and it is assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of the specifications, special provisions and contract. It is mutually agreed that submission of a proposal shall be considered conclusive evidence that the bidder has made such examination.

The bidder submits herewith a proposal guaranty in proper form and amount payable to the party as desigated in the advertisement inviting proposals, to be retained by and become the property of the owner of the work in the event the undersigned shall fail to execute the contract and contract bond and return the same to the office of the engineer within fourteen (14) days after having been notified in writing to do so; otherwise to be returned.

The bidder declares that they understand that the estimate of quantities in the attached schedule is approximate only and that the attached quantities may be greater or less in accordance with the specifications.

The bidder agrees to perform the said work, for and in consideration of the payment of the amount becoming due on account of work performed, according to the unit prices bid in the following schedule, and to accept such amounts in full payment of said work.

The bidder declares that all of the said work will be performed at their own proper cost and expense, that they will furnish all necessary materials, labor, tools, machinery, apparatus, and other means of construction in the manner provided in the applicable specifications and the approved plans for the work together with all standard and special designs that may be designed on such plans, and the special provisions in the contract of which this proposal will become a part, if and when accepted. The bidder further agrees that the applicable specifications and all plans and working drawings are made a part hereof, as fully and completely as if attached hereto.

The bidder, if awarded the contract, agrees to begin the work not later than ten (10) days after the date of written notification from the engineer to do so, unless otherwise stipulated in the special provisions.

The bidder declares that if they are awarded the contract, they will execute the contract agreement and begin and complete the work within the time named herein, and they will file a good and sufficient surety bond for the amount of the contract for performance and also for the full amount of the contract for payment.

The bidder, if awarded the contract, shall pay all claims as required by Section 779.14, Statutes of Wisconsin, and shall be subject to and discharge all liabilities for injuries pursuant to Chapter 102 of the Statutes of Wisconsin, and all acts amendatory thereto. They shall further be responsible for any damages to property or injury to persons occurring through their own negligence or that of their employes or agents, incident to the performance of work under this contract, pursuant to the Standard Specifications for Road and Bridge Construction applicable to this contract.

In connection with the performance of work under this contract, the contractor agrees to comply with all applicable state and federal statutes relating to non-discrimination in employment. No otherwise qualified person shall be excluded from employment or otherwise be subject to discrimination in employment in any manner on the basis of age, race, religion, color, gender, national origin or ancestry, disability, arrest or conviction record (in keeping with s.111.32), sexual orientation, marital status, membership in the military reserve, honesty testing, genetic testing, and outside use of lawful products. This provision shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. The contractor further agrees to ensure equal opportunity in employment to all applicants and employees and to take affirmative action to attain a representative workforce.

The contractor agrees to post notices and posters setting forth the provisions of the nondiscrimination clause, in a conspicuous and easily accessible place, available for employees and applicants for employment.

If a state public official (section 19.42, Stats.) or an organization in which a state public official holds at least a 10% interest is a party to this agreement, this contract is voidable by the state unless appropriate disclosure is made to the State of Wisconsin Ethics Board.

Effective with April 2006 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

(1) Obtain bidding proposals as specified in section 102 of the standard specifications. Submit bidding proposals using one of the following methods:

1. Electronic bid on the internet.
2. Electronic bid on a printout with accompanying diskette.
3. Paper bid under a waiver of the electronic submittal requirements.

(2) Bids submitted on a printout with accompanying diskette or paper bids submitted under a waiver of the electronic submittal requirements govern over bids submitted on the internet.

(3) The department will provide bidding information through the department's web site at http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm. The contractor is responsible for reviewing this web site for general notices as well as information regarding proposals in each letting. The department will also post special notices of all addenda to each proposal through this web site no later than 4:00 P.M. local time on the Thursday before the letting. Check the department's web site after 5:00 P.M. local time on the Thursday before the letting to ensure all addenda have been accounted for before preparing the bid. When bidding using methods 1 and 2 above, check the Bid Express™ on-line bidding exchange at http://www.bidx.com/ after 5:00 P.M. local time on the Thursday before the letting to ensure that the latest schedule of items Expedite file (*.ebs or *.00x) is used to submit the final bid.

(4) Interested parties can subscribe to the Bid Express™ on-line bidding exchange by following the instructions provided at the www.bidx.com web site or by contacting:

Info Tech Inc.
5700 SW 34th Street, Suite 1235
Gainesville, FL 32608-5371
email: mailto:customer.support@bidx.com

(5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.

(6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, Room 601, 4802 Sheboygan Avenue, Madison, WI, during regular business hours.

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

1. Have a properly executed annual bid bond on file with the department.
2. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.

(2) In lieu of preparing, delivering, and submitting the proposal as specified in 102.6 and 102.9 of the standard specifications, submit the proposal on the internet as follows:

1. Download the latest schedule of items reflecting all addenda from the Bid Express™ web site.
2. Use Expedite™ software to enter a unit price for every item in the schedule of items.

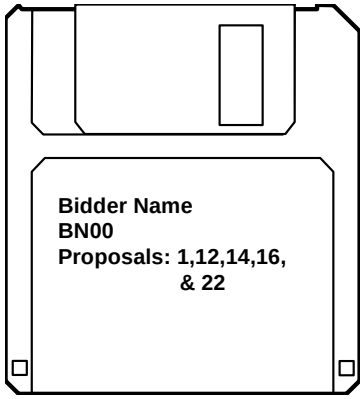
3. Submit the bid according to the requirements of Expedite™ software and the Bid Express™ web site. Do not submit a bid on a printout with accompanying diskette or a paper bid. If the bidder does submit a bid on a printout with accompanying diskette or a paper bid in addition to the internet submittal, the department will disregard the internet bid.
4. Submit the bid before the hour and date the Notice to Contractors designates.
5. Do not sign, notarize, and return the bidding proposal described in 102.2 of the standard specifications.

(3) The department will not consider the bid accepted until the hour and date the Notice to Contractors designates.

B.2 On a Printout with Accompanying Diskette

(1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at **http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm**. Use Expedite ™ software to prepare and print the schedule of items. Provide a valid amount for all price fields. Follow instructions and review the help screens provided on the Bid Express™ web site to assure that the schedule of items is prepared properly.

(2) Staple an 8 1/2 by 11 inch printout of the Expedite™ generated schedule of items to the other proposal documents submitted to the department as a part of the bidder's sealed bid. As a separate submittal not in the sealed bid envelop but due at the same time and place as the sealed bid, also provide the Expedite™ generated schedule of items on a 3 1/2 inch computer diskette. Label each diskette with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette as indicated in the following example:



(3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette. Include only submitted proposals with no incomplete or other files on the diskette.

(4) The bidder-submitted printout of the Expedite™ generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette, the department will analyze the bid using the printout information.

(5) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:

1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.

2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette.
3. The diskette is not submitted at the time and place the department designates.

C Waiver of Electronic Submittal

(1) The bidder may request a waiver of the electronic submittal requirements. Submit a written request for a waiver in lieu of bids submitted on the internet or on a printout with accompanying diskette. The department will waive the electronic submittal requirements for a bidding entity (individual, partnership, joint venture, corporation, or limited liability company) for up to 4 individual proposals in a calendar year. The department may allow additional waivers for equipment malfunctions.

(2) Submit a schedule of items on paper conforming to section 102 of the standard specifications. The department charges the bidder a $75 administrative fee per proposal, payable at the time and place the department designates for receiving bids, to cover the costs of data entry. The department will accept a check or money order payable to: "Wisconsin, Dept. of Transportation."

(3) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:

1. The bidder fails to provide the written request for waiver of the electronic submittal requirements.
2. The bidder fails to pay the $75 administrative fee before the time the department designates for the opening of bids.
3. The bidder exceeds 4 waivers of electronic submittal requirements within a calendar year.

(4) In addition to the reasons specified in section 102 of the standard specifications, the department may refuse to issue bidding proposals for future contracts to a bidding entity that owes the department administrative fees for a waiver of electronic submittal requirements.

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

Proposal Number	Project Number	Letting Date
Name of Principal		
Name of Surety	State in Which Surety is Organized	

We, the above-named Principal and the above-named Surety, are held and firmly bound unto the State of Wisconsin in the sum equal to the Proposal Guaranty for the total bid submitted for the payment to be made; we jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns. The condition of this obligation is that the Principal has submitted a bid proposal to the State of Wisconsin acting through the Department of Transportation for the improvement designated by the Proposal Number and Letting Date indicated above.

If the Principal is awarded the contract and, within the time and manner required by law after the prescribed forms are presented for signature, enters into a written contract in accordance with the bid, and files the bond with the Department of Transportation to guarantee faithful performance and payment for labor and materials, as required by law, or if the Department of Transportation shall reject all bids for the work described, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. In the event of failure of the Principal to enter into the contract or give the specified bond, the Principal shall pay to the Department of Transportation **within 10 business days of demand** a total equal to the Proposal Guaranty as liquidated damages; the liability of the Surety continues for the full amount of the obligation as stated until the obligation is paid in full.

The Surety, for value received, agrees that the obligations of it and its bond shall not be impaired or affected by any extension of time within which the Department of Transportation may accept the bid; and the Surety does waive notice of any such extension.

IN WITNESS, the Principal and Surety have agreed and have signed by their proper officers and have caused their corporate seals to be affixed this date: **(DATE MUST BE ENTERED)**

PRINCIPAL

(Company Name) **(Affix Corporate Seal)**

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Name of Surety) **(Affix Seal)**

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

On the above date, this instrument was acknowledged before me by the named person(s).

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State of Wisconsin)

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

On the above date, this instrument was acknowledged before me by the named person(s).

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State of Wisconsin)

(Date Commission Expires)

Notary Seal

IMPORTANT: A certified copy of Power of Attorney of the signatory agent must be attached to the bid bond.

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

Time Period Valid (From/To)
Name of Surety
Name of Contractor
Certificate Holder Wisconsin Department of Transportation

This is to certify that an annual bid bond issued by the above-named Surety is currently on file with the Wisconsin Department of Transportation.

This certificate is issued as a matter of information and conveys no rights upon the certificate holder and does not amend, extend or alter the coverage of the annual bid bond.

Cancellation: Should the above policy be cancelled before the expiration date, the issuing surety will give thirty (30) days written notice to the certificate holder indicated above.

(Signature of Authorized Contractor Representative) (Date)

FEBRUARY 1999

LIST OF SUBCONTRACTORS

Section 66.29(7), Wisconsin Statutes, provides that a bidder, as a part of his proposal, shall submit a list of the subcontractors he proposes to contract with and the class of work to be performed by each, provided that to qualify for such listing each subcontractor must first submit his bid in writing to the general contractor at least 48 hours prior to the time of bid closing. It further provides that a proposal of a bidder shall not be invalid if any subcontractor, and the class of work to be performed by such subcontractor, has been omitted from a proposal.

No subcontract, whether listed herein or later proposed, may be entered into without the written consent of the Engineer as provided in Subsection 108.1 of the Standard Specifications.

Name of Subcontractor	Class of Work	Estimated Value
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DECEMBER 2000

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS - PRIMARY COVERED TRANSACTIONS

Instructions for Certification

1. By signing and submitting this proposal, the prospective contractor is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department determined to enter into this transaction. If it is later determined that the contractor knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government the department may terminate this transaction for cause or default.

4. The prospective contractor shall provide immediate written notice to the department to whom this proposal is submitted if at any time the prospective contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department to which this proposal is being submitted for assistance in obtaining a copy of those regulations.

6. The prospective contractor agrees by submitting this proposal that, should this contract be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department entering into this transaction.

7. The prospective contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," which is included as an addendum to PR-1273 - "Required Contract Provisions Federal Aid Construction Contracts," without

modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

(1) The prospective contractor certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offense enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective contractor is unable to certify to any of the statements in this certification, such prospective contractor shall attach an explanation to this proposal.

Special Provisions

Table of Contents

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 3180-10-70, STH 83 (South) to STH 36/83 (North), STH 11, Racine County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2003 Edition, the Supplemental Specifications 2006 Edition, and these special provisions including the Additional Special Provisions (ASPs). The department considers only standard specifications, supplemental specifications and interim supplemental specifications issued directly from the department as valid for this contract.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.
(100906)

2. Scope of Work.

The work under this contract shall consist of grading, paving, drainage structures, dense graded base, concrete curb and gutter, asphaltic concrete pavement, traffic signals, Structures B-51-95, B-51-101, C-51-22, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
(082003) 104-005

3. Prosecution and Progress.

Begin work within ten calendar days after the engineer issues a written notice to proceed.

Provide the start date to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the approved start date.

To revise the start date, submit a written request to the engineer at least two weeks before the intended start date. The engineer will approve or deny that request based on the conditions cited in the request and its effect on the department's scheduled resources.

When in the fall of 2007, weather conditions or seasonal restrictions preclude the satisfactory performance of further work under this contract, the engineer will, in writing, suspend operations until the spring of 2008. Resume construction operations in the spring

of 2008 within ten days after the date on which a written order to do so has been issued by the engineer.

The schedule of operations shall conform to construction staging as described in the plans, unless the engineer approves modifications in the plans in writing. A general description of construction staging plans is as follows:

Construct driveway approaches as shown on the plans. Inform property owners and tenants at least 48 hours prior to removing a driveway approach that severs that property. Schedule driveway approach removal and replacement so that the time lapse between removal and replacement is minimal.

If the contractor can make other access arrangements, agreed in writing and signed by the contractor and the property owner serviced by the driveway, other arrangements will be allowed when approved by the engineer.

Submit all traffic control change requests to the engineer at least 24 hours prior to an actual traffic control change. A request does not constitute approval.

Modify 108.11 of the standard specifications by adding the following to the end of the subsection:

Each day shall be defined as a twenty-four hour period beginning at 12:01 AM.

Supplement 108.11 as follows:

Interim Completion Date, June 1, 2008.
If the contractor fails to complete all of the work necessary to open STH 83 to through traffic on a paved surface finished or temporary from Hidden Creek Lane to the north construction limit prior to 12:01 AM June 1, 2008, the department will assess the contractor $ 1000 in interim liquidated damages for each calendar day that all of the work necessary to open STH 83 to through traffic on a paved surface finished or temporary from Hidden Creek Lane to the north construction limit is not completed after 12:01 AM June 1, 2008. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

Interim Completion Date, August 1, 2008.
If the contractor fails to complete the contract work necessary to open Brever and Ketterhagen Roads to through traffic prior to 12:01 AM August 1, 2008, the department will assess the contractor $ 1000 in interim liquidated damages for each calendar day that Brever Road or Ketterhagen Road, or both, remain closed after 12:01 AM August 1, 2008. An entire calendar day will be charged for any period of time within a calendar day that Brever Road or Ketterhagen Road, or both, remain closed beyond 12:01 A.M.

Interim Completion Date, October 17, 2008.
If the contractor fails to complete the contract work necessary to open STH 83 to through traffic prior to 12:01 AM October 17, 2008, the department will assess the contractor $ 1000 in interim liquidated damages for each calendar day that the roadway remains closed after 12:01 AM October 17, 2008. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

The department will not grant time extensions to the interim completion dates specified above for the following:

1. Severe weather as specified in 108.10.2.2.
2. Labor disputes that are not industry wide.
3. Delays in material deliveries.

If contract time expires before completing all work specified in the contract, additional liquidated damages will be affixed in accordance with 108.11 of the standard specifications.

4. Traffic.

Accomplish the construction sequence, including the associated traffic control and detours, as detailed on the plans and described herein.

Detours
Detour traffic as shown on the plans. Install required traffic control and detour signs as shown on the plans prior to commencing stage construction and remove after completion of the project. Cover advance-warning signs and detour signs until work begins.

Property Owner Access
Construct commercial property driveway approaches in stages or provide temporary access at all times during the life of the contract.

Conduct construction operations in such a manner as to provide access to emergency vehicles at all times.

Do not park or store vehicles, equipment and materials within 50 feet from the edge of any active traffic lane.

Employ such flag persons, signs, barricades and drums as may be necessary to safeguard and direct traffic at all locations where construction operations may interfere with or restrict, the smooth flow of traffic. Make arrangements and be responsible for the prompt replacement of damaged or dislocated traffic control or guidance signs, day or night.

Traffic Control Stages
Traffic Control Stage I (Scheduled to begin September 4, 2007)

Burlington Bypass: Closed to traffic.

STH 83: Open to traffic, no construction. Ensure that existing traffic control, placed under Project 3180-08-70 blocking access to the Bypass, remains in place and is maintained.

Brever Road: Close Brever Road at STH 142 and Hoosier Creek Road. Place fills for structure embankments. Maintain paved access to last private access prior to Structure B-51-95. Leave existing Brever road undisturbed or use temporary asphaltic pavement to provide access for local residents through winter suspension of construction.

STH 142: Open to traffic, no construction. Ensure that existing traffic control, placed under Project 3180-08-70 blocking access to the Bypass, remains in place and is maintained.

STH 142 Ramps: Closed to traffic, no construction.

STH 11: Open to traffic, no construction. Ensure that existing traffic control, placed under Projects 3180-08-70 and 3180-14-70 blocking access to the Bypass, remains in place and is maintained.

Ketterhagen Road: Close Ketterhagen Road to traffic. Place fills for structure embankments. Maintain paved access to last private access prior to Structure B-51-101 through winter closure. Do not disturb existing Ketterhagen Road or use temporary asphaltic pavement to provide access for local residents through winter suspension of construction.

CTH A: Open to traffic, no construction. Ensure that existing traffic control, placed under Project 3180-08-70 blocking access to the Bypass, remains in place and is maintained.

CTH A Ramps: Closed to traffic, no construction.

STH 36/83 Northbound-Southbound Ramp: Closed to traffic, no construction.

Northbound STH 36/83 and STH 36/83 Northbound Ramp: Open to traffic. Reduce northbound traffic to the median lane prior to closing the STH 36/83 Northbound-Southbound Ramp. Replace drums placed for the lane closure and tapers with temporary concrete barrier wall in preparation for winter construction suspension. Ensure that all remaining existing traffic control devices, placed under Project 3180-09-70, remain in place and are maintained. Coordinate this work with Project 3180-09-70 to provide seamless switchover of traffic control.

Southbound STH 36/83 and STH 36/83 Southbound Ramp: Open to traffic. Reduce southbound traffic to the outside lane prior to the STH 36/83 Southbound Ramp and direct onto the southbound ramp. Replace drums placed for the lane

closure and tapers with temporary concrete barrier wall in preparation for winter construction suspension. Ensure that all remaining existing traffic control devices, placed under Project 3180-09-70, remain in place and are maintained. Coordinate this work with Project 3180-09-70 to provide seamless switchover of traffic control.

Stage 2A (Spring, 2008)

Burlington Bypass: Closed to traffic.

STH 83:
Road closed to traffic; detour STH 83 traffic. Construct temporary diversion channel prior to April 1, 2008. Maintain access for local residents.

Construct STH 83 from Hidden Creek Lane to northern construction limits. Provide paved access to Hidden Creek Lane. Construct STH 83 in stages to allow traffic to use existing pavement or place temporary asphaltic pavement to maintain paved access. Complete construction of STH 83 from Hidden Creek Lane to northern construction limits by June 1, 2008, with the exception of finished surface, signing and pavement marking.

Brever Road: Brever Road remains closed. Continue constructing the remaining portions of Brever Road and Structure B-51-95. Maintain access for local residents; however, the paved access is no longer required after winter construction suspension.

STH 142: Same as Stage 1.

STH 142 Ramps: Closed to traffic

STH 11: Same as Stage 1.

Ketterhagen Road: Ketterhagen Road remains closed. Continue constructing the remaining portions of Ketterhagen Road and Structure B-51-101. Maintain access for local residents; however, the paved access is no longer required after winter construction suspension.

CTH A: Same as Stage 1.

CTH A Ramps: Closed to traffic.

STH 36/83 Northbound-Southbound Ramp: Closed to traffic.

Northbound STH 36/83 and STH 36/83 Northbound Ramp: Maintain traffic control placed in Stage 1.

Southbound STH 36/83 and STH 36/83 Southbound Ramp: Maintain traffic control placed in Stage 1.

Stage 2B (June 1, 2008)

Burlington Bypass: Closed to traffic.

STH 83: Road closed to traffic, detour STH 83 traffic. Complete constructing remaining portions of STH 83. Maintain access for local residents.

STH 83 from Hidden Creek Lane to northern construction limits will be open to traffic, with temporary pavement marking in place. Temporary lane closures required to place finished surface signing and pavement marking. See standard detail drawing "Traffic control for Lane Closure (Suitable for Moving Operation)" for required traffic control. Open STH 83 to traffic prior to October 31, 2008.

Brever Road: Brever Road remains closed. Complete construction of the remaining portions of Brever Road and Structure B-51-95. Maintain access for local residents. At the completion of construction, when finished surface, permanent signing and pavement marking is in place, remove all traffic control and open the roadway to traffic. Open Brever Road to traffic by August 1, 2008.

STH 142: Traffic control remains in place until completion of Stage 3 construction and the Mainline Bypass is ready to be opened to traffic.

STH 142 Ramps: Closed to traffic. Continue construction of STH 142 Ramps. Road remains closed and traffic control remains in place until completion of Stage 3 construction and the Mainline Bypass is ready to be opened to traffic.

STH 11: Traffic control remains in place until completion of Stage 3 construction and the Mainline Bypass is ready to be opened to traffic.

Ketterhagen Road: Ketterhagen Road remains closed. Complete construction of the remaining portions of Ketterhagen Road and Structure B-51-101. Maintain access for local residents. At the completion of construction, when finished surface, permanent signing and pavement marking is in place, remove all traffic control and open the roadway to traffic. Open Ketterhagen Road to traffic by August 1, 2008.

CTH A: Traffic control remains in place until completion of Stage 3 construction and the Mainline Bypass is ready to be opened to traffic.

CTH A Ramps: Closed to traffic. Continue construction of CTH A Ramp. Road to remain closed and traffic control to remain in place until completion of Stage 3 construction and the Mainline Bypass is ready to be opened to traffic.

STH 36/83 Northbound-Southbound Ramp: Traffic control to remain in place until completion of Stage 3 construction and the Mainline Bypass is ready to be opened to traffic.

Northbound STH 36/83 & STH 36/83 Northbound Ramp: Traffic control remains in place until completion of Stage 3 construction and the Mainline Bypass is ready to be opened to traffic.

Southbound STH 36/83 & STH 36/83 Southbound Ramp: Traffic control remains in place until completion of Stage 3 construction and the Mainline Bypass is ready to be opened to traffic.

Stage 3

Burlington Bypass / STH 83: Place traffic control, permanent signing and pavement marking in preparation of opening the Burlington Bypass to traffic. All traffic control items being placed in Stage 3 at this location will remain in place for up to three years. Coordination with Project 3180-11-70 is required. At the completion of Stage 3, all traffic control along the Mainline Bypass and associated sideroads can be removed. At the completion of Project 3180-10-70, the traffic control placed in Stage 3 will become the maintenance responsibility of the Project 3180-11-70 contractor.

STH 83: After completing Stage 3, remove all traffic control and open to traffic.

STH 142: After completing Stage 3, remove all traffic control.

STH 142 Ramps: After completing Stage 3, remove all traffic control and open to traffic.

STH 11: After completing Stage 3, remove all traffic control.

CTH A: After completing Stage 3, remove all traffic control.

CTH A Ramps: After completing Stage 3, remove all traffic control and open to traffic.

STH 36/83 Northbound-Southbound Ramp: After completing Stage 3, remove all traffic control and open to traffic.

Northbound STH 36/83 & STH 36/83 Northbound Ramp: After completing Stage 3, remove all traffic control and open to traffic.

Southbound STH 36/83 & STH 36/83 Southbound Ramp: After completing Stage 3, remove all traffic control and open to traffic.

5. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 36, STH 83, STH 142 or STH 11 traffic, and entirely clear the

traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights and any other material that might impede the free flow of traffic during the following holiday periods:

From noon Friday, August 31, 2007 to 6:00 AM Tuesday, September 4, 2007;
From noon Wednesday, November 21, 2007 to 6:00 AM Monday, November 26, 2007;
From 12:01 AM Saturday, December 22, 2007 to 6:00 AM Wednesday, January 2, 2008;
From noon Friday, May 23, 2008 to 6:00 AM Tuesday, May 27, 2008;
From 6:00 AM Thursday, July 3, 2008 to 6:00 AM Monday, July 7, 2008;
From noon Friday, August 29, 2008 to 6:00 AM Tuesday, September 2, 2008.

(050205) 107-005

6. Utilities.

This contract comes under the provisions of Administrative Rule TRANS 220.
(051206)

Underground and overhead utility facilities are located within the project limits. Utility adjustments "are" or "are not" required for this construction project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

Contact each utility company listed in the plans, prior to preparing bids, to obtain current information on the status of existing and any new utility relocation work.

ATC - No conflicts anticipated. Work completed under project 3180-08-70.

WE Energies Electric - The existing path of the majority of the overhead lines at STH 83 will stay the same except that new poles guys will be installed so as to increase the existing elevation of the line to cross the Bypass alignment (the exception being the streetlight pole at Station 354+37 (44' Lt) STH 83). WE Energies Electric anticipates work to be prior to construction.

We Energies Gas (WEGAS)

STH 83

WEGAS has existing gas line running from Station 343+60 to the end of proposed construction on STH 83 along the west side of the existing roadway. This line varies from approximately 30 to 75 feet west of existing centerline. Laterals cross existing STH 83 at approximately Stations 343+60, 354+63, 356+82, 358+09 361+30 and 362+90. The existing gas line and all the laterals appear to be in conflict with Project 3180-10-70. WEGAS will relocate gas line from Station

340+00 to 358+00, near the new westerly right-of-way line of STH 83, and replace service lines crossing STH 83 at Stations 354+63, 356+82, 358+09, and 362+90. WEGAS anticipates completion of its relocation work along STH 83 prior to construction.

Brever Road
WEGAS has existing gas line running from the beginning to the end of proposed construction on Brever Road along the west side of the existing roadway. This line varies from approximately 15 feet to 20 feet west of existing centerline. Laterals cross existing Brever Road at approximately Stations 102+28, 109+11 and 119+42. The existing gas line and all the laterals appear to be in conflict with project 3180-10-70. WEGAS will relocate gas line from Station 96+00 to 120+00, near the new westerly right-of-way line of Brever road. The gas service lines at 102+28 and 109+11 will be retired. The gas service line at 119+42 will be relocated. WEGAS anticipates completion of its relocation work along Brever Road prior to construction.

Ketterhagen Road
WEGAS has existing gas line running along the south side of Ketterhagen Road from Station 91+50 to 110+75. This line was placed in 2006 at its current location due to the fact that all of the proposed roadway right-of-way was not yet purchased at that time and the line needed to be placed. WEGAS will relocate this line to the new southerly right-of-way line from Station 91+50 to Station 110+75 and replace and or tie-in affected gas service lines. WEGAS anticipates completion of its relocation work along Brever Road prior to construction.

ANR Pipeline Company - No conflicts anticipated. Work was completed under Project 3180-14-70. Contact ANR when work takes place in their easement area so they may have personnel on site to protect their facilities.

SBC - No conflicts anticipated. Work was completed under Project 3180-08-70.

TDS Telecom (TDS)

Ketterhagen Road
TDS has existing buried cable from Station 90+00 – Station 110+75, 22-32 feet RT along Ketterhagen Road. TDS anticipates their work to be completed by May 7, 2007.

Time Warner Cable - No conflicts anticipated. Work to be coordinated with WE Energies Electric. Time Warner Cable Facilities will be placed on WE-Energies-Electric poles.

City of Burlington DPW - The following is a list of relocations and adjustments that are required to the City of Burlington water and sanitary facilities in preparation of Project 3180-10-70. Some of the work will be performed by city staff prior to and during construction. Some of the work will need to be performed by project contractor as a non-

participating item. The City of Burlington anticipates completion of this work prior to and during construction.

STH 83

Existing water valve located at Station 342+94 – minor adjustment by City Water Utility Staff in field during construction.

Existing hydrant valve at Station 343+18 – minor adjustment by City Water Utility Staff in field during construction.

Existing hydrant located at Station 343+18 – relocate from 49’ left to 66’ left, new elevation is 765.40, prior to road construction beginning.

Existing sanitary force main air release manhole Station 345+30 left – reconstruct to rim elevation 764.75. Completed by road contractor as a nonparticipating item.

Existing water valve manhole Station 348+94 right – Reconstruct to rim elevation 771.75. Carry back 25:1 slope to 50’ right, then steepen slope to match. Completed by road contractor as a nonparticipating item.

Existing hydrant valve and hydrant at Station 349+22 right – remove and plug hydrant lead. Add new hydrant and valve at STH 349+55 40’ left (hydrant) and 35’ left (valve) at elevation 776.70. Complete prior to start of construction.

Existing sanitary force main air release manhole Station 355+15 right – Reconstruct to rim elevation 775.90. Completed by road contractor as a nonparticipating item.

Existing water valve manhole at Station 354+46 right – Reconstruct to rim elevation 775.97. Rim in curb – sealed and locked cover required. Completed by road contractor as a nonparticipating item.

Existing water valve manhole at Station 354+97 left – Reconstruct to rim elevation 774.05 Completed by road contractor as a nonparticipating item.

Existing hydrant valve at Station 355+12 and hydrant at Station 355+28 – Remove and plug lead.

Proposed lead, valve and hydrant assembly located at 355+30, 70’ left. Served off of main on Yahnke Road. – New installation completed prior to roadway construction.

Existing water valve manhole Station 354+99 left, no impact.

Existing sanitary manhole Station 355+15 left, no impact.

Existing sanitary manhole Station 355+80 left, no impact.

Existing sanitary manhole Station 356+18 left, no impact.

Existing sanitary manhole Station 356+77 left, no impact.

Existing water valve at Station 358+16 right – Adjust in field by City Water Utility Staff during construction.

Existing water valve at Station 365+XX left - Adjust in field by City Water Utility Staff during construction.

Existing water valve manhole Station 360+85 left – Adjust manhole. Completed by road contractor as a nonparticipating item.

Existing water valve at Station 361+03 left – Adjust in field by City Water Utility Staff during construction.

Existing hydrant at Station 361+09 left – Raise 1.0 foot to 773.02. Complete prior to start of construction.

Existing sanitary force main air release manhole at Station 363+05 left – Adjust/reconstruct to 771.67 (from 770.62). Completed by road contractor as a nonparticipating item.

Existing sanitary manhole at Station 363+60 left, beyond slopes no impact.

Existing water valve box at Station 364+50 left – Adjust by City Water Utility Staff during construction.

Existing sanitary force main air release manhole at Station 367+18 left – Adjust manhole. Completed by road contractor as a nonparticipating item. Rim in curb – sealed and lock rim required.

Existing water valve manhole at Station 367+16 left – Adjust manhole. Completed by road contractor as a nonparticipating item.

Existing hydrant at Station 367+40 left – ok – located at approximately 40’ left. Existing and proposed conditions are same. On foreslope of ditch.

Existing sanitary manhole at Station 367+89 left – ok – outside of slope – no impact.

The sanitary sewer lift station located in the northwest quadrant of the proposed STH 83 / Bypass Intersection currently has access off of Yahnke Road. Since Yahnke Road access is being removed from STH 83, an alternate access must be provided. Under the current 3180-10-70 project, access to the lift station will remain off of Yahnke road in a temporary condition. An alternate access will need to be provided as a participating item on a future Bypass contract.

7. Construction Over or Adjacent to Navigable Waters.

Supplement 107.19 of the standard specifications with the following:

The Fox River is classified as a navigable waterway.
(041504) 107-060

8. Erosion Control.

Supplement subsection 107.20 of the standard specifications with the following:

Implementation of the contractor's Erosion Control Implementation Plan (ECIP) cannot take place until the ECIP has been granted approval from the department. Take into account dust control during preparation of ECIP and throughout the duration of the project.

Pursue operations in a timely and diligent manner, continuing all construction operations methodically from the initial topsoil stripping operation through the subsequent grading and re-topsoiling to minimize the period of exposure to possible erosion.

Re-topsoil graded areas, as designated by the engineer, immediately after grading is completed within those areas. Seed, fertilize, and mulch all topsoiled areas within five working days after placement of topsoil.

To avoid conflicts with mowing and maintenance operations, remove all erosion mat installed during construction operations once seeding has established itself and as directed by the engineer. Removal of erosion mat is incidental to the appropriate bid item.
(082003) 107-051

9. Information to Bidders Wetlands.

The department has obtained a U.S. Army Corps of Engineers Section 404 Permit and WisDNR 401 Water Quality Certification for work being performed on this project in or adjacent to wetlands. Copy(s) of the permit and certification letter are available for viewing at the regional office or at the project field office.

Comply with the requirements of the permit and certification in addition to requirements of the contract. Perform remedial activities without extra compensation if not in compliance.

If the contractor chooses a method of construction that is not covered by the department's 404 Permit, obtain the proper additional permits required from the U.S. Army Corps of Engineers. It is the contractor's responsibility to determine if additional permits are required. Obtain the additional permits prior to beginning construction operations requiring the permits. No time extensions as discussed in subsection 108.10 of the standard specifications will be granted for the time required to apply for and obtain the

additional permits. The contractor must be aware that the U.S. Army Corps of Engineers may not grant the additional permits.

No change in payment will be granted if the contractor chooses a method of construction that does not comply with the 404 Permit. Water level is subject to change. Contractor is responsible for making his or her own determination of water levels that will exist during construction.

If sheet piling is required, determine sheet pile depths and locations in accordance to the permit. Sheeting required shall be considered incidental to other work and will not be paid for separately.

10. Hauling Restrictions.

Conduct operations in a manner that will cause a minimum of inconvenience to the free flow of vehicles on roadways carrying STH 142, STH 11, CTH A, STH 36/83 or Yahnke Road traffic. The contractor will be allowed access to these roads at locations approved by the engineer.

When hauling across any public roads, provide the necessary flagging and signing to control the construction equipment movements. Do not impede traffic flow on the public roads with flagging operations.

11. Other Contracts.

Coordinate with the contractor for the projects listed below:

Projects 3180-08-70 and 3180-14-70 provide for grading, base layers HMA paving and or structures at the locations listed below. Grading included storm sewer cross culverts and underdrain. Projects 3180-08-70 and 3180-14-70 were let in combination prior to work under this contract.

1. Grading of Mainline Bypass eastbound and westbound roadways from Station 1129+00 to 1154+00, including the approaches to Structures B-51-93/94 over the Fox River.
2. Grading of Mainline Bypass eastbound and westbound roadways from Station 1156+00 to 1326+00.
3. Grading of Mainline Bypass eastbound and westbound roadways from Station 1334+00 to 1393+00, including the approaches to Structures B-51-102/103 over the Fox River.
4. Grading of the STH 142 and CTH A jug-handle ramps.
5. Grading and paving of HMA base layers for STH 142, including Mt Tom Road.
6. Grading and placement of base aggregate surface for the Canadian Pacific Bike Path.
7. Grading and paving of HMA base layers for STH 11.

8. Grading and paving of HMA base layers for CTH A, including River Road and Old CTH-A.
9. Structures B-51-92 STH 142 over Bypass.
10. Structure B-51-98 CTH A over Bypass.
11. Structure C-51-24 Canadian Pacific Bike Path under Bypass.

Projects 3180-09-70 provide for grading, HMA paving (base and surface layers) and or structures at the locations listed below. Grading included storm sewer cross culverts and underdrain. Projects 3180-09-70 was let separate to the projects listed above prior to work under this contract.

1. Grading of Mainline Bypass eastbound and westbound roadways Station 1393+00 to Station 1408+00 westbound and Station 1415+00 eastbound.
2. Grading and paving and completion of the entire STH 36/83/Bypass Interchange, with the exception of the mainline portion listed above. Traffic control at this interchange was left in place and will require coordination with Project 3180-10-70.
3. Grading and paving and completion of the Racine County Bike Path.
4. Placement of limestone screenings on Canadian Pacific Bike Path.
5. Structures B-51-93/94 Bypass over the Fox River.
6. Structures B-51-102/103 Bypass over the Fox River.
7. Structures B-51-113 STH 36/83 Northbound Ramp over Bypass.
8. Base aggregate dense and open were placed at various locations previously graded under previous projects. See current project Typical Sections for locations and dimensions.

Project 3180-10-70 involves the completion of the entire east half of the Burlington Bypass and associated side roads.

Project 3180-11-70 is the first of three contracts that will construct the west half of the Burlington Bypass. This project is scheduled to begin construction prior to completion of Project 3180-10-70. Coordination of traffic control is required between projects.

Weekly coordination meetings with above contractors are required throughout the duration of the contract.

12. Project Meetings.

Conduct weekly meetings, in coordination with the department, to discuss project schedule of operations and coordination of work. Invite local officials, utility representatives, and subcontractors. Hold meetings on-site.

13. Temporary Items to Remain After Construction.

Project 3180-09-70: The following temporary items installed under this contract will be removed by others under future contracts:

Cover on type 1 signs (see plan for locations), Signs Type I, Barricades Type III Permanent and Flexible Tubular Marker Posts.

14. Removing Pavement.

Perform this work in accordance to the requirements of section 204 of the standard specifications, as shown on the plans, and as hereinafter provided.

Remove existing concrete pavement in a manner that causes minimal disturbance to the underlying base material.

Use material removed under this item as aggregates or crushed materials, and recycle and use in the construction of work under this contract to the maximum extent feasible.

Any surplus salvaged material or unusable material shall become the property of the contractor and shall be disposed of by the contractor in an environmentally acceptable manner. The cost to dispose of all excess materials, including steel reinforcement, shall be included in the item of Removing Pavement.

The crushing, screening, and processing of the removed concrete pavement shall not be measured and paid for separately, but shall be considered as included in the cost of the item into which the produced aggregates are incorporated.
(051206) 204-001

15. Removing Retaining Wall, Item 204.9060.S.01.

A Description
This special provision describes removing the modular block retaining wall at the location shown in the plan in accordance with the pertinent provisions of section 204 of the standard specifications and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Removing Retaining Wall by the individual retaining wall acceptably completed.

E Payment
Supplement 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01	Removing Retaining Wall	Each

(100504)

16. Grading, Shaping and Finishing for Barrier Terminals, Item 205.9006.S.

A Description

This special provision describes the excavating, filling, grading, shaping, compacting, and finishing necessary to accommodate barrier terminals, as shown on the plans, in accordance to the pertinent requirements of the standard specifications, and as hereinafter provided.

B (Vacant)

C Construction

Construct embankment slopes as shown on the plans.

Properly dispose of all surplus and unsuitable material in accordance to 205.3.12 of the standard specifications.

D Measurement

The department will measure Grading, Shaping and Finishing for Barrier Terminals as each individual terminal acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
205.9006.S	Grading, Shaping and Finishing for Barrier Terminals	Each

Payment is full compensation for all excavating, grading, shaping and compacting; furnishing and placing fill, topsoil, fertilizer, seed, and mulch; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

(100906) 205-009

17. Backfill Granular.

Conform to the gradation requirements of Grade 2 granular backfill in accordance to subsection 209.2.1 of the standard specifications.

18. QMP Base Aggregate, Item 301.0100.S.

A Description

A.1 General

(1) This special provision describes contractor quality control (QC) sampling and testing for base aggregates, documenting those test results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

(2) Conform to sections 301, 305, and 310 of the standard specifications as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.

(3) Do not apply this special provision to material placed under the Aggregate Detours, Salvaged Asphaltic Pavement Base, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.

(4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:

1. Production and placement control and inspection.
2. Material sampling and testing.

(5) Chapter 4 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's extranet site at:
http://trust.dot.state.wi.us/extntgtwy/dtidcons/constnds/cmm/cmm.htm

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 (9000 Mg) 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 (1500 Mg)	One test from production, load-out, or placement at the contractor's option.
> 1500 tons (1500 Mg) and ≤ 6000 tons (6000 Mg)	Two tests of the same type, either from production, load-out, or placement at the contractor's option.
> 6000 tons (6000 Mg) and ≤ 9000 tons (9000 Mg)	Three placement tests[1] [2]

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

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

3. No control charts are required. Submit aggregate 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 (6000 Mg) or less.

(3) Material represented by a sublot 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 106.5 of the standard specifications.

B Materials

B.1 Contractor Quality Control Program Requirements

B.1.1 Quality Control Plan

(1) Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.

(2) Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the district materials unit or from the engineer.
5. Descriptions of stockpiling and hauling methods.
6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.1.2 Personnel Requirements

(1) Have personnel certified under the department's highway technician certification program (HTCP) perform sampling and testing as follows:

Required certification Level:	Sampling or Testing Roles:
Aggregate Technician I or IPP Aggregate Sampling Technician Assistant Certified Technician (ACT)	Aggregate Sampling[1]
Aggregate Technician I or IPP Assistant Certified Technician (ACT)	Aggregate Gradation Testing, Aggregate Fractured Particle Testing
Aggregate Technician IPP Assistant Certified Technician (ACT)	Aggregate Permeability Testing

[1] Plant personnel under the direct observation of an aggregate technician certified at level one or higher may operate equipment to obtain samples.

(2) Ensure that sampling and testing by an assistant certified technician conforms to all of the following:

1. Sampling by an ACT is done under the direct observation of a aggregate technician certified at level one or higher.
2. Testing by an ACT is done under the direct supervision of an aggregate technician certified at level one or higher
3. No more than one ACT reports to an individual certified technician.

(3) Have an aggregate technician certified at level one or higher perform all data analysis and posting.

B.1.3 Laboratory Requirements

(1) Perform QC testing at a department qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Quality Management Section
3502 Kinsman Blvd.
Madison, Wisconsin 53704
Telephone: 608-246-3246
http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm

B.1.4 Quality Control Documentation

B.1.4.1 General

(1) Submit base aggregate production and placement documentation to the engineer within 10 business days after completing base placement. Ensure that the submittal is complete, neatly organized, and includes applicable project records and control charts. If conducting post-production testing, also include post-production documentation.

B.1.4.2 Records

(1) Document all production and placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute tabulated results using a method mutually agreeable to the engineer and contractor.

B.1.4.3 Control Charts

(1) Plot gradation, permeability, and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 4-15-12. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.

(2) Provide control charts to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:

1. Contractor individual QC tests.
2. Department QV tests.
3. Department IA tests.
4. Four-point running average of the QC tests.

(3) Except as specified under B.2.2.1 for out-of-tolerance QV tests, include only QC tests in the running average. The contractor may plot process control or informational tests on control charts, but do not include these tests, in-tolerance QV tests, or IA tests in the running average.

B.1.5 Contractor Quality Control Testing

B.1.5.1 Production Testing

(1) Test gradation and fracture during production of each base aggregate size, source or classification, and type. Sample from either the finished product conveyor belt or stockpiles using the same procedure throughout the project. Determine random sample locations according to CMM 4-15-12 and collect samples according to CMM 4-25-50.

(2) Test gradation once per 1500 tons (1500 Mg) during initial production from a source, or if switching to a new base aggregate size or classification. For 3-inch base, test once per 3000 tons (3000 Mg) up to a maximum of 2 tests per day during initial production. Test at the initial frequency until three consecutive running average points for all the gradation sieves are within the warning limits. Subsequently, the contractor may reduce the frequency to one test per day if all gradation running averages remain within the warning limits. If any gradation running average is outside the warning limits, resume testing at the initial frequency.

(3) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per ten gradation tests if the fracture running average remains above the warning limit.

(4) Provide production test records for aggregate produced before the contract. The engineer will review this documentation to determine if testing conforms to the contract. The engineer may reject material if testing is nonconforming. The engineer

may subsequently approve this material for placement if the contractor provides additional post-production test results, as specified in B.1.5.2, to supplement otherwise nonconforming testing.

B.1.5.2 Post-Production Testing

B.1.5.2.1 Stockpile 3-Test Averages

(1) Collect three random samples from each stockpile not adequately tested during production. Test each sample for fracture and gradation. Calculate a 3-test average for fracture and for the percent passing each sieve. The engineer will determine additional requirements as follows:

1. If the fracture 3-test average or any gradation 3-test average exceeds its respective warning limits, the engineer will reject the stockpile unless the contractor elects to rework it. If electing to rework the stockpile, test the material during reworking as required for production testing under B.1.5.1. Plot the reworking test results on a separate control chart. Include the 3-test averages and their component individual tests on that control chart, but do not include them in the running average. No load-out testing is required.
2. If the fracture 3-test average and all the gradation 3-test averages fall within their respective warning limits, the engineer will approve the stockpile subject to load-out testing. Conduct and document additional testing during load-out as specified in B.1.5.2.2. Include the 3-test averages and their component individual tests on the load-out control chart, but do not include them in the running average.

B.1.5.2.2 Load-Out Testing

(1) For stockpiles approved without reworking under B.1.5.2.1, test gradation and fracture during load-out as follows:

DAILY LOAD-OUT in tons or Mg	TESTS PER DAY
≥500 to <1500	1
≥1500	2

(2) Plot the load-out test results on a separate control chart.

(3) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per ten gradation tests if the fracture running average remains above the warning limit.

(4) Stop placing material if any load-out running average exceeds its warning limits. Collect 3 random samples from the remaining stockpile. The engineer will evaluate the remaining stockpile as specified in B.1.5.2.1. Proceed with post-production testing of the remaining stockpile as specified in B.1.5.2.1.

B.1.5.3 Placement Testing

(1) Test gradation and fracture during placement for each base aggregate size, source or classification, and type. The contractor may test permeability of open graded base instead of gradation, but must then use permeability testing throughout the project. The engineer will not require fracture testing if all production running averages are above the warning limit. The engineer may reinstate fracture testing if verification tests fall below the warning limit.

(2) Determine random sample locations according to CMM 4-15-12 and collect samples from the grade according to CMM 4-25-50. Each day before placement, have an aggregate technician determine random sample locations based on the contractor's estimate for that day's placement quantity and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.

(3) Split each contractor QC sample and identify it according to CMM 4-15-12. Retain the split for seven calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

(4) Test gradation or permeability once per 3000 tons (3000 Mg) of estimated placement up to a maximum of 3 tests per day, or one sample per 5 days of placement whichever is most frequent. Include unsampled material in the estimate for the next day's placement as follows:

1. If actual placement falls short of a planned random test location.
2. If actual placement over runs and less than three tests are made that day.

(5) The engineer may require additional sampling and testing to evaluate suspect material or the technician's sampling and testing procedures.

(6) If required, test fracture for each gradation or permeability test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per ten gradation or permeability tests if the fracture running average remains above the warning limit.

B.1.6 Test Methods

B.1.6.1 Gradation

(1) Test gradation using a washed analysis conforming to the following as modified in CMM 4-25-50:

Gradation ..... AASHTO T 27
Material finer than the No. 200 (75 µm) sieve ..... AASHTO T 11

(2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 (75µm) sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of ten. If a single running average for the percent passing the No. 200 (75µm) sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.

(3) Maintain a separate control chart for each sieve size specified in section 305 or 310 of the standard specifications for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:

1. Control limits are at the upper and lower specification limits.
2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
3. Dense graded warning limits, except for the No. 200 (75µm) sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 (75µm) sieve are set 0.5 percent within the upper and lower control limits.
4. Open graded warning limits for the 1-inch (25.0 mm), 3/8-inch (9.5 mm), and No. 4 (4.75 mm) sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10 (2.00 mm), No. 40 (425µm), and No. 200 (75µm) sieves are 1 percent inside the upper control limit.

B.1.6.2 Fracture

(1) Test fracture conforming to CMM 4-25-50. The engineer will waive fractured particle testing on quarried stone.

(2) Maintain a separate fracture control chart for each base aggregate size, source or classification, and type. Set the lower control limit at the contract specification limit, either specified in another special provision or in table 301-2 of 301.2.3.5 of the standard specifications. Set the lower warning limit two percent above the lower control limit. There are no upper limits.

B.1.6.3 Permeability

(1) Test permeability using equipment and procedures conforming to the department's falling head permeameter test as described in CMM 4-15-32.

(2) The individual test specification limit is a minimum of 700 feet/day (200 m/day). An individual test is the average of three permeability test values from a single sample (K_n).

(3) Maintain a separate permeability control chart for each open graded base source. Set the running average lower control limit at 1000 feet/day (300 m/day). Set the running average lower warning limit at 1300 feet/day (400 m/day). There are no upper limits.

B.1.7 Corrective Action

B.1.7.1 General

(1) Consider corrective action when the running average trends toward a warning limit. Take corrective action if an individual test exceeds the contract specification limit. Document all corrective actions both in the project records and on the appropriate control chart.

B.1.7.2 Production Corrective Action

(1) Take corrective action if the running average exceeds a warning limit. Part of this required corrective action is a return to the initial testing frequencies specified in B.1.5.1. The contractor may subsequently reduce the frequency if conditions specified for reduced frequency testing under B.1.5.1 are met.

B.1.7.3 Placement Corrective Action

(1) Do not blend additional material on the roadbed to correct gradation or permeability problems.

(2) Notify the engineer whenever the running average exceeds a warning limit. When two consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:

1. For gradation or permeability, increase the QC testing frequency to at least 1 randomly sampled test per 1000 tons (1000 Mg) placed.
2. For fracture, increase the QC testing frequency to at least one test per gradation or permeability test.

(3) If corrective action improves the property in question such that the running average after four additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.1.5.3. If corrective action does not improve the property in question such that the running average after four additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.

(4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:

1. A gradation control limit for any sieve is exceeded by more than five percent.
2. Permeability is less than 700 feet/day (200 m/day).
3. The fracture control limit is exceeded by more than ten percent.

B.2 Department Testing

B.2.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within two business days after the department obtains the sample.

B.2.2 Verification Testing

B.2.2.1 General

(1) The department will have an HTCP technician, or ACT under the direction of a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.1.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) 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 1 random test per 30,000 tons (30 000 Mg), or fraction of 30,000 tons (30 000 Mg), placed.

(3) The department will sample randomly, at locations independent of the contractor’s QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting; except, for 3-inch aggregates, the department will collect samples from the stockpile at load-out. The department will split each sample, test half for QV, and retain half.

(4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing. If the contractor chooses permeability for QC testing, the department will use permeability for QV testing.

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, the engineer will compare those results to the nearest previous QC test result as follows:

1. If the QV and QC results are within the tolerances specified in B.2.2.2, the department will take no further action.
2. If QV and QC results are not within the tolerances specified in B.2.2.2, add the QV to the QC test results as if it were an additional QC test.

B.2.2.2 Verification Testing Tolerances

(1) Differences between the contractor's QC test results and the department's QV test results are acceptable if within the following tolerances:

TEST PROPERTY	ACCEPTABLE DIFFERENCE
GRADATION	
1 in (25.0 mm)	±6 % passing
3/4 in (19.0 mm)	±6 % passing
3/8 in (9.5 mm)	±6 % passing
No. 4 (4.75 mm)	±5 % passing
No. 8 (2.36 mm)	±4 % passing
No. 10 (2.00 mm)	±4 % passing
No. 30 (600 µm)	±4 % passing
No. 40 (425 µm)	±4 % passing
No. 50 (300 µm)	±4 % passing
No. 200 (75 µm)	±2 % passing
PERMEABILITY	±20 % of the measured QV permeability
FRACTURE	±10 % of the measured QV fracture

B.2.3 Independent Assurance

(1) Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.4.

B.3 Acceptance

(1) The department will accept base aggregate based on the contractor QC tests unless it is shown through QV testing or the dispute resolution process that the contractor's test results are in error.

B.4 Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does

occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

(2) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating nonconforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in 106.5 of the standard specifications.

C (Vacant)

D Measurement

(1) The department will measure QMP Base Aggregate by the ton of aggregate acceptably tested. The department will measure the quantity based on the tonnage placed under the Base Aggregate bid items listed in subsection A. The department will include material placed for temporary base or to maintain local traffic even though it was not sampled during placement. The department will not include material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.

E Payment

(1) The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
301.0100.S	QMP Base Aggregate	Ton

(2) Payment is full compensation for all sampling, testing, and documentation required under this special provision. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor’s pay. The department will administer pay reduction under the Non-performance on QMP administrative item.

(3) For material represented by a running average exceeding a control limit, the department will reduce pay by ten percent of the contract price for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture administrative items. The department will determine the quantity of nonconforming material as specified in B.1.7.3.

(100906) 301-010

19. Base Aggregate Dense 1 1/4-Inch for Lower Base Layers.

Replace 305.2.2.1(2) of the standard specifications with the following:

(1) Use 1 1/4-inch base throughout the full base depth.

(2) Use 3/4-inch base in the top 3 inches of the unpaved portion of shoulders. Use 3/4-inch base or 1 1/4-inch base elsewhere in shoulders.

(100906) 305-020

20. QMP Concrete Ancillary.

A Description

(1) Conform to standard spec 390, 416, 501, 504, 509, 510, 601, 602, 603, 604, 611, 620, 636, and 654 as modified in this special provision. Apply this special provision to all concrete cast in place under these designated sections, except for sections 416 and 504. For sections 416 and 504, apply only to concrete placed under the following bid items:

416.0060	Concrete Pavement Widening
416.0065	Concrete Pavement Widening HES
416.0160 - 0199	Concrete Driveway (inch)
416.0260 - 0299	Concrete Driveway HES (inch)
416.0505	Pavement Terminal Units
416.0710	Concrete Pavement Repair
416.0715	Concrete Pavement Repair SHES
416.1010	Concrete Surface Drains
416.1015	Concrete Surface Drains HES
504.0900	Concrete Masonry Endwalls

(2) Provide and maintain a quality control program, defined as all activities and documentation of the following:

1. Mix design.
2. Production control, placement control, and inspection.
3. Sampling, testing, measurement, and correction of materials and in-place concrete.

(3) The contractor may include ancillary concrete in a quality control program required for concrete pavement or structural concrete.

(4) Chapter 4 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's extranet site at:

http://www.dot.wisconsin.gov/business/engrserv/index.htm

B Quality Control Program Requirements

B.1 Personnel Requirements

(1) Perform the material sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a PCC technician certified under HTCP at level I present at the project site, prepared and equipped to perform required sampling and testing, whenever placing concrete. Provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all personnel involved in the quality control program.

B.2 Laboratory Requirements

(1) Perform the cylinder compressive strength testing at a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Quality Management Section
3502 Kinsman Blvd.
Madison Wisconsin 53704
Telephone: 608-246-3246
http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm

B.3 Equipment Requirements

(1) Furnish the necessary equipment and supplies for performing quality control testing. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to CMM 4-15-12 and maintain a calibration record at a location satisfactory to the engineer.

B.4 Concrete Mixes

B.4.1 Initial Mix

(1) Determine concrete mixes for the project. Use concrete mixes from standard spec 501. Alternatively, where one of the grade A mixes is allowed under standard spec 501.3.1.3, the contractor may use a QMP mix design approved for concrete pavement or structural concrete under this contract.

(2) At least 5 business days before producing concrete, submit concrete mix documentation to the engineer for approval. Provide documentation ensuring that all materials conform to standard spec 501.2 unless the engineer waives specific requirements. Include documentation for mix designs as follows:

1. Mix grade designation for standard specification mixes.
2. Materials: type, brand, and source.
3. Aggregates: absorption, specific gravities, wear, soundness, freeze thaw test results if required, air correction factor, and proposed gradation control limits.

B.4.2 Mix Changes

(1) Prepare and submit modifications to a standard specification concrete mix or a contractor concrete mix design to the engineer for approval before using that modified mix. Modifications requiring the engineer's approval include changes in:

1. The source of any material.
2. The amounts of cementitious materials.
3. The adjustment of fine to total aggregate greater than ±3 percent by weight.
4. The addition or deletion of admixtures.

B.5 Quality Control Documentation

(1) Document all observations, inspection records, mix adjustments, cylinder identification, and test results daily according to CMM 4-15-42. Submit a copy of the ancillary concrete daily test report to the engineer each day. Submit original testing records to the engineer in a neat and orderly manner within 10 days after completing concrete production.

B.6 Contractor Testing

B.6.1 General

(1) Perform all quality control tests necessary to control the production and construction processes applicable to this special provision. Use the test methods identified below, or other methods the engineer approves, to perform the following tests:

Aggregate gradations	AASHTO T 11[1] and T 27[1]
Air content	AASHTO T 152[2]
Slump	AASHTO T 119[2]
Temperature	AASHTO T 309
Compressive strength	AASHTO T 22, T 23, and T 141

[1] As modified in CMM 4-25-50.

[2] As modified in CMM 4-25-70.

(2) The department may periodically observe contractor sampling and testing, and direct additional contractor sampling and testing for department evaluation. Ensure that all test results are available for the engineer's review at any time during normal working hours.

(3) Randomly choose sample locations using the procedures described CMM 4-15-12. Use whichever combination of the following criteria resulting in the greatest number of tests.

1. A minimum of one test per day per mix grade.
2. A minimum of one test per 100 cubic yards for each grade of mix placed.
3. For deck overlays, one test per 50 cubic yards of grade E concrete placed.

B.6.2 Compressive Strength

B.6.2.1 Concrete Sampling

(1) Have an HTCP certified PCC technician I or IA sample, test, and document results during concrete production and placement. Cast a minimum of one set of 2 standard 6x12-inch cylinders for each test using concrete delivered to the job site. Cast all cylinders in a set from the same sample. Sample according to AASHTO T 141. Cast and standard cure the cylinders according to AASHTO T 23.

B.6.2.2 Concrete Cylinder Curing

(1) Provide facilities for initial curing. For up to 48 hours after casting, maintain the temperature adjacent to the specimens in the range of 60 to 80 degrees F (16 to 27 degrees C) and prevent moisture loss. Between 24 and 48 hours after casting, transport the specimens to a department-qualified laboratory for standard curing according to AASHTO M201 for 28 days.

B.6.2.3 Compressive Strength Testing

(1) Have an HTCP certified compressive strength tester, in a department-qualified laboratory, perform compressive strength testing and document the results. Determine the 28-day compressive strength in pounds per square inch of each cylinder according to AASHTO T 22. Test each cylinder to failure. Use a compression machine that automatically records the date, time, rate of loading, and maximum load of each cylinder. Include a printout of this information with the compressive strength documentation for each cylinder tested.

B.6.3 Air Content

(1) On each day of production, test the concrete air content as early and as frequently as practicable until the concrete meets the specifications and the production process is under control.

(2) Have an HTCP certified PCC technician I or IA test air content according to AASHTO T 152, as modified by the department. The lower and upper specification limits for air content are the values specified in standard spec 501.3.2.4.2. Document admixture dosage rates, time of day, and air temperature on the ancillary concrete daily test report whenever changing an admixture dosage rate.

(3) Double the air content test frequency if an individual air test falls outside the following warning bands:

1. For deck overlay grade E concrete: less than 5.5% or greater than 6.5%.
2. For slip-formed concrete: less than 6%.
3. For all other concrete: less than 5%.

Continue testing at increased frequency until an individual test point is back within the warning band.

(4) If an individual air test is outside the specification limits, notify the engineer, and perform additional air tests as often as practicable on subsequent loads until the air content is inside the specification limits. The material is nonconforming when an individual test result exceeds the specification limit. Material from the load with the first test exceeding the specification limit, continuing to but not including the load with the first subsequent test within the specification limits, is nonconforming. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B.6.4 Concrete Temperature

(1) Have an HTCP certified PCC technician I or IA measure concrete temperature according to AASHTO T 309. Test concrete taken from the same sample used for air content testing. Record concrete temperatures on the air content control chart.

B.6.5 Slump

(1) Have an HTCP certified PCC technician I or IA measure slump according to AASHTO T 119. The contractor need not test slump for concrete placed by slip-form methods unless the engineer requests. Provide material conforming to the slumps specified in standard spec 501.3.7.1.

B.6.6 Aggregate Gradations

(1) Have an HTCP certified Aggregate Technician I or IPP perform aggregate gradation tests according to AASHTO T 11 and T 27.

(2) The engineer may accept aggregate gradation based upon satisfactory records of previous testing of the material at the time of aggregate production. Otherwise, test aggregate gradations at the frequency listed below which results in the least number of tests.

1. A maximum of one test per day.
2. A minimum of one test per 400 cubic yards of cumulative concrete placed.

C Department Testing

C.1 Verification Testing

(1) The department will have an appropriately HTCP certified technician perform verification testing. The department will sample randomly at locations independent of the contractor’s QC work. In all cases, the department will conduct the verification tests with separate personnel and equipment from the contractor's QC tests. The department will perform verification testing at a frequency of 10 percent of the random concrete quality control tests or a minimum of once per project, or at greater frequency if determined to be necessary by the engineer. Department verification testing is optional for aggregate used in the concrete.

(2) If verification tests indicate conformance with specifications, no further action is required. If verification tests indicate nonconformance with specifications, the engineer and contractor will jointly investigate any testing discrepancies. The investigation may include additional testing as well as review and observation of both the department's and contractor's sampling and testing procedures and equipment. Both parties will document all investigative work.

(3) Correct all deficiencies. If the contractor does not respond to an engineer request to correct a deficiency or resolve a testing discrepancy, the engineer may suspend production until action is taken. Resolve disputes as specified in D.

C.2 Independent Assurance Testing

(1) Independent assurance is unbiased testing the department performs to evaluate the department's verification and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform the independent assurance review according to the department's independent assurance program.

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend production until action is taken. Resolve disputes as specified in D.

D Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

(2) If the project personnel can not resolve a dispute and the dispute affects payment or could result in incorporating nonconforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

E Acceptance

(1) The department will accept concrete based on the contractor QC tests unless it is shown through the verification, or the dispute resolution process that the contractor's test results are in error.

F Payment

(1) Costs for all QMP sampling, testing, and documentation required under this special provision are incidental to the work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the Non-performance of QMP administrative item.

(100906) 501-065

21. QMP Concrete Pavement, Item 415.3000.S; Incentive Strength Concrete Pavement, Item 415.2000.S.

A Description

A.1 General

(1) Conform to standard spec 320, 415, 416, and 501 as modified in this special provision. Apply this special provision only to the following bid items:

320.0100 - 0199	Concrete Base (inch)
320.0300 - 0399	Concrete Base HES (inch)
320.0500	Concrete Base Widening
415.0060 - 0199	Concrete Pavement (inch)
415.1080 - 1199	Concrete Pavement HES (inch)
416.0050	Concrete Pavement Approach Slab
416.0055	Concrete Pavement Approach Slab HES
416.0310	Concrete Alley
416.0315	Concrete Alley HES
416.0410	Concrete Pavement Header
416.0415	Concrete Pavement Header HES
416.0805	Concrete Pavement Gaps

(2) Provide and maintain a quality control program, defined as all activities and documentation of the following:

1. Mix design.
2. Production control, placement control, and inspection.
3. Sampling, testing, measurement, and correction of materials and in-place concrete pavement.

(3) Chapter 4 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's website at:

http://www.dot.wisconsin.gov/business/engrserv/index.htm

A.2 Contractor Testing for Small Quantities

(1) The department defines a small quantity, for a particular mix design and placement technique, as less than 2500 cubic yards (1912 m^3) for slip-formed work or 1000 cubic yards (765 m^3) work not slip-formed.

(2) The requirements under this special provision apply equally to a small quantity for a particular mix design and placement technique 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.
2. The engineer may accept aggregate gradation based upon satisfactory records of previous testing.

3. No concrete control charts are required. Submit test results to the engineer each day as they become available. Assure that all properties are within the limits specified in the standard specifications for each sublot tested.
4. The department will not adjust the pay for sublots with conforming compressive strength.

B Quality Control Program Requirements

B.1 Quality Control Plan

(1) Submit a comprehensive written quality control plan. Construct the project as the plan provides. Submit the plan to the engineer no later than 10 business days before placing concrete pavement. Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories before producing concrete and as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart including names, telephone numbers, current certifications and/or titles, and roles and responsibilities of all quality control personnel.
2. The process by which quality control information and corrective action efforts will be disseminated to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
3. Preliminary concrete pavement mix information including anticipated producers, manufacturers, and sources of mix materials, and the name, title, and phone number of the person responsible for developing the mix design.
4. The locations of the QC laboratories for mix design, aggregate testing, cylinder curing, concrete testing, and compressive strength testing.
5. Anticipated concrete mix aggregate gradations and limits.
6. The initial and routine equipment checks and documentation performed on scales, and water meters.
7. The methods for monitoring and recording the materials used in each batch.
8. Procedures for documenting the locations of yielding base course and subgrade.
9. The frequency of contractor quality control testing, if planning to perform more frequently than section B.7 specifies.
10. The format for control charts and sampling, testing, and pay adjustment data documentation, if different from the forms provided in the CMM 4-15-42.

B.2 Personnel Requirements

(1) Perform the material sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a PCC technician certified under HTCP at level I present at the project site, prepared and equipped to perform required sampling and testing, whenever placing concrete.

B.3 Laboratory Requirements

(1) Perform the concrete mix design, aggregate testing, cylinder curing, and compressive strength testing at a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Quality Management Section
3502 Kinsman Blvd.
Madison Wisconsin 53704
Telephone: 608-246-3246
http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm

B.4 Equipment Requirements

(1) Furnish the necessary equipment and supplies for performing quality control testing. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM 4-15-12 and maintain a calibration record at the laboratory.

B.5 Concrete Pavement Mixes

B.5.1 General

(1) Determine concrete pavement mixes for the project.

(2) For concrete base, use a grade B, B-FA, B-S, B-IS, or B-IP concrete mix conforming to standard spec 501. The contractor may substitute aggregate conforming to the gradation requirements of a contractor-developed pavement mix design approved under the contract.

B.5.1.1 Mix Development

(1) Have a PCC technician certified under HTCP at level II develop contractor-supplied pavement mixes. Test concrete during mix development at a department-qualified laboratory.

B.5.1.2 Submittal and Review Procedures

(1) At least 3 business days before producing concrete, submit to the engineer 2 copies of a concrete pavement mix report. Include signature blocks for both the contractor's mix developer and the department's project engineer on the mix report cover sheet. Before the engineer’s review, have the mix developer sign and date each copy attesting that all information in the report is accurate and true. The engineer will review, comment, sign, and date each copy of the report. The engineer’s signature will verify that the engineer had the opportunity to review the mix report, to check that it meets the concrete mix requirements, and to comment. The engineer will keep one original signed copy and return the other copy to the contractor within 3 business days of receiving the report.

B.5.2 Standard Specification Concrete Mix

(1) Replace the word "engineer" with the word "contractor" in standard spec 501.3.2.1. and 501.3.2.3.

(2) The contractor may elect to use concrete pavement mixes from standard spec 501. When choosing this alternate, the contractor is responsible for mix performance just as if the contractor provided independent mix designs.

(3) Provide mix documentation ensuring that all materials conform to standard spec 501 unless the engineer waives specific requirements. Ensure that the mix limits, including aggregate gradations, are within the master limits listed in standard spec 501.3.2.2. Include documentation for the original mix designs as follows:

1. Mix: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, air content.
2. Materials: type, brand, and source.
3. Aggregates: absorption, specific gravities, wear, soundness, freeze thaw test results if required, air correction factor, and proposed gradation control limits.

B.5.3 Contractor Concrete Mix Design

(1) Delete standard spec 501.2.5.3.4, 501.2.5.4.4, 501.3.1.1.2, 5013.2.1, 501.3.2.2, and 501.3.2.3. Delete the maximum limit for percent passing the No. 200 (75 µm) sieve from standard spec 501.2.5.3.1 and 501.2.5.4.2.

B.5.3.1 Documentation

(1) Provide mix design documentation ensuring that all materials conform to standard spec 501.2, as modified in this special provision, unless the engineer waives specific requirements. Include documentation for contractor mix designs as follows:

1. Mix development: test dates, the name and location of the laboratory used to develop the mix design.
2. Mix: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, air content, and 28-day or earlier compressive strength.
3. Materials: type, brand, and source.
4. Aggregates: absorption, specific gravities, wear, soundness, freeze thaw test results if required, air correction factor, and proposed gradation control limits.

B.5.3.2 Mix Design Physical Requirements

(1) Use at least 5 pairs of cylinders to demonstrate the compressive strength of a mix design. The contractor may report strengths from either laboratory testing or previous field test data for a similar mix design. Ensure that the average compressive strength achieved, in 28 days or less, by the 5 pairs of cylinders is 4200 psi (29 MPa) or greater. The contractor need not provide separate laboratory mix designs and compressive strength tests for high early strength concrete.

(2) Provide a minimum cement content of 565 pounds per cubic yard (335 kg/m3), except if using type I or III cement in a mix where the geologic composition of the coarse aggregate is primarily igneous or metamorphic materials, provide a minimum cement content of 660 pounds per cubic yard (392 kg/m3). The contractor may partially replace Portland cement with fly ash at a replacement ratio of not less than one pound (kg) of fly ash per one pound (kg) of cement up to a maximum fly ash

content of 30% of total cementitious material. Alternatively, the contractor may use slag as a partial replacement for cement at a replacement ratio of not less than one pound (kg) of slag per 1.0 one pound (kg) of cement. For slip-formed concrete pavement do not exceed a maximum slag content of 50% of the total cementitious material. For concrete pavement not slip-formed, do not exceed a maximum slag content of 30% of total cementitious material. Alternatively, the contractor may use a combination of fly ash and slag up to a maximum combined fly ash and slag content of 30 percent. Ensure that fly ash conforms to 501.2.6 and slag conforms to standard spec 501.2.7.

(3) The target ratio of net water to cementitious material (W/Cm) for the submitted mix design shall not exceed 0.42 by weight. Net water includes free water on the aggregate surface but does not include water absorbed within the aggregate particles.

(4) Provide aggregate conforming to the following:

1. One hundred percent of the aggregate shall pass the 2 inch (50 mm) sieve.
2. The percent of total aggregate passing the No. 200 (75 µm) sieve shall not exceed 2.3 percent, by weight.
3. The total aggregate passing the No. 4 (4.75 mm) sieve shall not exceed 42 percent, by weight; except, if the coarse aggregate is completely composed of crushed stone and/or recycled concrete, the total aggregate passing the No. 4 (4.75 mm) sieve shall not exceed 47 percent, by weight.

(5) Do not use chloride based accelerators in mixes for all new construction.

(6) The contractor may adjust admixture dosages without providing a new mix design.

B.5.4 Mix Changes

(1) Prepare and submit modifications to a standard specification concrete mix or a contractor concrete mix design to the engineer for review before using that mix. Modifications requiring the engineer's review include changes in:

1. The source of any material.
2. The amounts of cementitious materials.
3. The adjustment of fine to total aggregate greater than ±3 percent by weight.
4. The addition or deletion of admixtures.

(2) When the department requires or allows high early strength concrete, use type III cement. Alternatively the contractor may add a minimum of an additional 95 pounds of cement per cubic yard of concrete (57 kg cement/m3 concrete) to a previously accepted mix.

B.6 Quality Control Documentation

B.6.1 Control Charts

(1) Maintain control charts when required by the test reporting procedures. Ensure that all tests are recorded and become part of the project records. Only include the contractor’s QC tests in the 4-point running average plotted on the control charts. The

contractor may plot other contractor-performed process control or informational tests on the control charts, but do not include them in 4-point running averages.

(2) Post control charts in an engineer-approved location and update daily. Ensure that the control charts include the project number, the test number, each test element, the applicable warning and control limits, the contractor's individual test results, the running average of the last 4 data points, and the engineer's verification and independent assurance test data points. Use the control charts as part of a process control system for identifying potential problems and assignable causes. Format control charts according to CMM 4-15-12.

B.6.2 Records

(1) Document all observations, inspection records, mix adjustments, and tests daily. Submit original testing records and control charts to the engineer in a neat and orderly manner within 10 days after completing concrete production.

B.7 Required Quality Control Testing

B.7.1 General

(1) Perform all quality control tests necessary to control the production and construction processes applicable to this special provision and as described in the quality control plan. Use the test methods identified below, or other methods the engineer approves, to perform the following tests:

Aggregate gradations	AASHTO T-11[1] & T-27[1]
Aggregate materials finer than the No. 200 sieve	AASHTO T 11[1]
Aggregate moisture	AASHTO T 255[1]
Air content	AASHTO T 152[2]
Slump	AASHTO T 119[2]
Temperature	AASHTO T 309
Compressive strength	AASHTO T 22, T 23, T 141, M 201

[1] As modified in CMM 4-25-50.

[2] As modified in CMM 4-25-70.

(2) The department may periodically observe contractor sampling and testing, and direct additional contractor sampling and testing for department evaluation. Ensure that all test results are available for the engineer's review at any time during normal working hours.

B.7.2 Aggregate Gradation Testing

B.7.2.1 Sampling and Testing

(1) Randomly sample and test the individual aggregate gradations according to AASHTO T 11 and AASHTO T 27 as modified by the department. Have an HTCP certified aggregate sampling technician, aggregate technician I or IPP, or PCC technician IA perform all sampling. Have an HTCP certified aggregate technician I or IPP test the aggregate and document the results. Test during aggregate production as follows:

Daily Aggregate Production, Rate in tons or Mg	Minimum Testing Frequency for Each Aggregate Stockpile
≤1000	One test per cumulative total of 1000 tons or Mg; or a minimum of one test per 5 days of aggregate production
>1000 - ≤2000	2 tests per day
>2000+	3 tests per day

(2) If the aggregate was produced before the contract and production records are not available or not acceptable to the engineer, sample and test during concrete production at a frequency greater than or equal to the following:

Daily Concrete Production in cubic yards (m^3)	Minimum Testing Frequency for Each Aggregate Stockpile
≤250 (200)	One test per cumulative total of 250 cy (200 m^3) or a minimum of one test per 5 days of concrete production
>250 (200) - ≤1000 (750)	One test per day
>1000 (750)	2 tests per day

(3) Ensure that only results of randomly selected QC tests are included in the 4-point running average.

(4) Wash each sample of fine aggregate. Also wash the first 4 samples of each of the coarse aggregates. If the percent passing the No. 200 (75 µm) sieve for the coarse aggregate is less than the warning limit, wash at least every 10th sample of each of the coarse aggregates. If the percent passing the No. 200 (75 µm) sieve for the coarse aggregate is greater than or equal to the warning limit, wash each sample of the coarse aggregate until 4 consecutive tests are less than the warning limit.

(5) Use control limits for sieve sizes as identified by the contractor in the project concrete mix report or, if the concrete mix report is not published at the time of testing, in the contractor's quality control plan. Gradation warning limits are inside the upper and lower control limit values by one percentage point for all sieves except as follows:

1. The upper warning limits for percent passing the No. 100 (150 µm) and No. 200 (75 µm) sieves are inside the control limit by 0.5 percent.
2. For sieves allowing 100 percent passing, there is no upper warning limit. For sieves with 0 percent passing, there is no lower warning limit.

B.7.2.2 Documentation

(1) Maintain control charts at the laboratory for each aggregate stockpile. Maintain a chart for each control sieve for each material. Record contractor test results the same day tests are conducted.

B.7.2.3 Corrective Action

(1) When the 4-point running average value approaches a warning limit, consider corrective action. Ensure that any corrective action is documented and becomes part of the project records.

(2) Document whenever a 4-point running average exceeds the warning limits. When a second consecutive running average value exceeds the warning limits, take corrective action. Continue corrective action until 2 consecutive average points are within the warning limits.

(3) Notify the engineer whenever an individual test value exceeds a control limit. Material is nonconforming when an individual test exceeds the control limit. The quantity of nonconforming material includes the material of the first test exceeding the control limit, continuing to but not including, the material from the first subsequent test that is within the control limits. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B.7.3 Aggregate Percent Passing the No. 200 Sieve Testing

B.7.3.1 Sampling and Testing

(1) Have an HTCP certified aggregate sampling technician, aggregate technician I or IPP, or PCC technician IA perform all sampling. Ensure that an HTCP certified PCC technician IA or a technician with both PCC technician I and aggregate technician I or IPP certifications performs all testing and documentation.

(2) Measure and record the percent passing the No. 200 (75 µm) sieve of both the fine and course aggregates when producing concrete pavement. Conduct tests according to AASHTO T 11 as modified by the department. Test at least one sample as early as it is practical each day and as mix or material conditions change. The contractor may reduce this testing frequency, if the engineer approves, but maintain at least one test per 5 days of concrete production.

(3) Document testing as specified in B.6.1, B.7.2.1, and B.7.2.2, by developing a combined gradation control chart for the percent passing the No. 200 (75 µm) sieve. Use the control limits defined in the concrete pavement mix report. Ensure that only results of QC tests are included in the 4-point running average.

B.7.3.2 Corrective Action

(1) When an individual test approaches a warning limit, consider corrective action. Document corrective actions and include that documentation in the project records.

(2) Notify the engineer if an individual test exceeds the warning limits. If a second consecutive individual test exceeds the warning limits, the engineer and contractor will determine the contractor's course of corrective action. If the corrective action improves the property in question such that additional individual tests are within the warning limits, the contractor may continue production. If the correction does not

improve the property, and new individual tests stay in the warning band, repeat the steps outlined here in B.7.3.2(2) starting with notifying the engineer.

(3) Notify the engineer whenever an individual test value exceeds a control limit. Material is nonconforming when an individual test exceeds the control limit. The quantity of nonconforming material includes the material of the first test exceeding the control limit, continuing to but not including, the material from the first subsequent test that is within the control limits. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B.7.4 Compressive Strength

(1) The department will adjust pay and base concrete acceptance on the compressive strength of concrete cylinders. The department will not adjust pay for concrete base or for high early strength concrete. Include tests of concrete base and high early strength concrete for all other QC testing, except no 28-day cylinders are required for concrete base or for high early strength concrete.

B.7.4.1 Concrete Sampling

B.7.4.1.1 General

(1) The department will adjust pay for compressive strength on a lot-by-lot basis. The department will accept or reject concrete on a sublot-by-sublot basis. Designate the approximate location and size of all lots before placing concrete pavement. Ensure that no single lot contains concrete of more than one mix design, as defined in B.5, or more than one placement technique. Divide each lot into 5 or more sublots. Determine the approximate number and size of sublots before placing any concrete in that lot. Do not cast more than one set of cylinders from a single truckload of concrete. Incorporate material from any partial sublot left unsampled at the end of any day into the previous sublot for acceptance. Material from any partial sublot the contractor samples will stand on its own as a partial sublot for acceptance.

(2) Have an HTCP certified PCC technician I or IA sample, test, and document results during concrete production and placement. Cast one set of 3 standard 6X12 inch QC cylinders for each sublot using concrete delivered to the job site. Cast all sublot cylinders from the same sample. Have a certified technician determine random sublot sampling locations as described in CMM 4-15-12. Sample according to AASHTO T 141. Cast and initially cure the cylinders according AASHTO T 23.

(3) Fabricate one set of 3 companion cylinders for department testing during each day of concrete production from a sublot the engineer designates. Use the same concrete sample as used for the contractor’s QC cylinders for that sublot. Provide all materials, fabrication, initial curing, and handling required for companion cylinders for up to 3 days following fabrication.

B.7.4.1.2 Slip-Formed

(1) A lot typically consists of the amount of concrete pavement placed during each day's paving.

(2) Divide each lot into standard sublots. Define the standard sublot size in the quality control plan, but do not exceed 500 cubic yards (382m3).

(3) If less than 5 random samples are collected in a day, incorporate the represented concrete into the following or previous day's pavement lot.

B.7.4.1.3 Not Slip-Formed

(1) Do not exceed a lot size of 1000 cubic yards (765 m3).

(2) Define at least one sublot per day per mix grade placed. Do not exceed a sublot size of 200 cubic yards (153 m3).

B.7.4.2 Concrete Cylinder Curing

(1) Provide facilities for initial curing. For up to 48 hours after casting, maintain the temperature adjacent to the specimens in the range of 60 to 80 degrees F (16 - 27 degrees C) and prevent moisture loss. Between 24 and 48 hours after casting, transport the specimens to a department-qualified laboratory for standard curing according to AASHTO M 201 for 28 days.

B.7.4.3 Compressive Strength Testing

(1) Have an HTCP certified compressive strength tester, in a department-qualified laboratory, perform compressive strength testing and document the results. Randomly select 2 QC cylinders to test at 28 days.

(2) Determine the 28-day compressive strength in psi of each cylinder according to AASHTO T 22. Test each cylinder to failure. Use a compression machine that automatically records the date, time, rate of loading, and maximum load of each cylinder. Include a printout of this information with the compressive strength documentation for each cylinder tested.

(3) Compare the strengths of the 2 randomly selected QC cylinders and determine the 28-day sublot average strength as follows:

- If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC cylinders.
- If the lower strength divided by the higher strength is less than 0.9, break one additional cylinder and average the 2 higher strength cylinders.

B.7.4.4 Removal and Replacement

(1) If a sublot strength is less than 2500 psi (17.2 MPa), the department may direct the contractor to core that sublot to determine its structural adequacy and whether to direct removal. Cut and test cores according to AASHTO T 24 as and where the engineer directs. Have an HTCP certified PCC technician I perform or observe the

coring. Bear all coring and testing costs, fill all core holes with an approved grout, and provide traffic control during coring at no cost to the department.

(2) The sublot pavement is conforming if the compressive strengths of all cores from the sublot are 2500 psi (17.2 MPa) or greater or the engineer does not require coring. The department will allow conforming material to remain in place and use the original cylinder strength results in the calculation for the lot pay adjustment as specified in G.3.

(3) The sublot pavement is nonconforming if the compressive strengths of any core from the sublot is less than 2500 psi (17.2 MPa). The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B.7.5 Air Content

(1) On each day of production, test air content at the point of placement at start-up and as frequently as practicable until the concrete meets the specifications and the production process is under control. Subsequently, test air content for each compressive strength sublot. Have an HTCP certified PCC technician I or IA test air content according to AASHTO T 152, as modified by the department. Test concrete taken from the same sample used for QC strength cylinders, and as the engineer directs.

(2) The lower and upper control limits for air content are the values specified in 501.3.2.4.2. of the standard specifications. The lower warning limit for air content is 0.5 percent above the lower control limit. There is no upper warning limit.

B.7.5.1 Documentation

(1) Maintain a control chart at a fixed location on the project site. Ensure that all test results are recorded and become part of the project records. Chart all results on the same day tests are conducted. Only plot results of samples selected randomly in the 4-point running average.

(2) Document admixture dosage rates, time of day, and air temperature on the combined gradation control chart for the percent passing the No. 200 (75 µm) sieve whenever changing an admixture dosage rate.

B.7.5.2 Corrective Action

(1) If an individual air test is between the lower warning limit and lower control limit, double the air content test frequency to 2 tests per compressive strength sublot. Perform one of these tests from the same concrete sample used for the QC strength cylinders. Select the second sample randomly from the half of the sublot not used for the QC strength cylinders. Determine both random test locations within a sublot before paving that sublot. Continue testing at increased frequency until an individual test point is above the lower warning limit and below the upper control limit.

(2) When the 4-point running average value trend is towards the lower warning limit or the upper control limit, consider corrective action.

(3) Notify the engineer if a 4-point running average is less than the lower warning limit. If a second consecutive running average is below the warning limit, the engineer and contractor will determine the contractor's course of corrective action. If the corrective action improves the property in question such that the new running average, after four additional individual tests, is between the lower warning limit and upper control limit, the contractor may continue production. If the new running average is below the lower warning limit, repeat the steps outlined here in B.7.5.2(3) starting with notifying the engineer.

(4) If an individual air test is outside the control limits, notify the engineer, and perform additional air tests as often as it is practical on subsequent loads until the air content is inside the control limits. The material is nonconforming when an individual test exceeds the control limit. Material from the load with the first test exceeding the control limit, continuing to but not including the load with the first subsequent test within the control limits, is nonconforming. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B.7.6 Concrete Temperature

(1) Have an HTCP certified PCC technician I or IA measure concrete temperature according to AASHTO T 309. Test concrete taken from the same sample used for QC strength cylinders. Record concrete temperatures on the air content control chart.

B.7.7 Slump

(1) Have an HTCP certified PCC technician I or IA measure slump according to AASHTO T 119. The contractor need not test slump for slip-form paving unless the engineer requests. For other placement techniques, test slump whenever an air content test or cylinders are made and as the engineer directs. Provide material conforming to the slumps specified in standard spec 415.3.6.

C Department Testing

C.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all verification and independent assurance personnel for the project.

(2) Except for strength, the department will provide test results to the contractor within 2 business days after the department obtains the sample.

C.2 Verification Testing

(1) The department will have an HTCP technician, or ACT under the direction of a certified technician, perform QV sampling and testing. Department verification

testing personnel must meet the same certification level requirements specified for contractor testing personnel for each test being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will sample randomly at locations independent of the contractor's QC work. In all cases, the department will conduct the verification tests in a separate laboratory and with separate equipment from the contractor's QC tests.

(3) The department will perform verification testing as follows:

	Testing Frequency Guide[1]	Sampling Material and Location	Test Method	Alternate Test Methods
Air content	1 per lot	Plastic concrete, ahead or behind[2] the paver	AASHTO T 152 as modified	Hardened air content testing[2] after construction
28-day compressive strength	1 per 5 lots	Cylinders	AASHTO T 22, T 23 & T 141 as modified	Random cores[2] after construction

[1] The engineer may increase the frequency at start-up or as necessary to validate the quality of the materials. The engineer may reduce the frequency based on a history of satisfactory contractor or material performance.

[2] Evaluation of test results should account for systematic differences in testing methods or sampling locations.

(4) The department will conduct verification testing for pavement thickness as specified in standard spec 415.3.18.

(5) Plot verification tests on the contractor's quality control charts as specified in B.6.1. Do not include verification tests in the 4-point running average.

(6) If verification tests indicate conformance with specifications, no further action is required. If verification tests indicate nonconformance with specifications, the engineer and contractor will jointly investigate any testing discrepancies. The investigation may include additional testing as well as review and observation of both the department's and contractor's sampling and testing procedures and equipment. Both parties will document all investigative work.

(7) Correct all deficiencies. If the contractor does not respond to an engineer request to correct a deficiency or resolve a testing discrepancy, the engineer may suspend production until action is taken. Resolve disputes as specified in D.

C.3 Independent Assurance Testing

(1) Independence assurance is unbiased testing the department performs to evaluate the department's verification and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform the independent assurance review according to the department's independent assurance program, which may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

(2) Plot the independent assurance tests on the contractor's quality control charts as specified in B.6.1. Do not include independent assurance tests in the 4-point running average.

(3) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend production until action is taken. Resolve disputes as specified in D.

D Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

(2) If the project personnel can not resolve a dispute and the dispute affects payment or could result in incorporating nonconforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party tests to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

E Acceptance

(1) The department will accept concrete pavement based on the contractor QC tests unless it is shown through the verification, or the dispute resolution process that the contractor's tests are in error.

F Measurement

(1) The department will measure QMP Concrete Pavement by the day for QC testing acceptably completed. The department will measure, in 1/2-day increments, the time spent placing concrete under the bid items listed in A.1. The department will measure 1/2 day for 4 hours or less of concrete paving and one day for greater than 4 hours of concrete paving. The department will only measure the QMP Concrete Pavement bid item if all of the following conditions are met:

1. The contractor is placing concrete pavement.
2. QC sampling and testing is required under the contract.
3. All required sampling and testing is performed.

(2) If these conditions are met, the department will measure paving time beginning when the first truckload of concrete is discharged and ending when the last truck discharges its concrete. The department will start and stop measurement of paving time based on the start and stop of the contractor's paving operations.

(3) If the contractor demonstrates, to the engineer's satisfaction, that it is necessary to use more than one testing crew during multiple paving operations, the department will measure time for each testing crew working concurrently.

(4) The department will measure Incentive Strength Concrete Pavement by the dollar, adjusted as specified in G.3.

G Payment

G.1 General

(1) The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
415.3000.S	QMP Concrete Pavement	Day
415.2000.S	Incentive Strength Concrete Pavement	DOL

G.2 QMP Testing

(1) Payment for QMP Concrete Pavement is full compensation for all sampling, testing, and documentation required under this special provision. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor’s pay. The department will administer pay reduction under the n non-performance of QMP administrative item.

G.3 Pay Adjustment for Strength

(1) The department will pay incentive for compressive strength under the Incentive Strength Concrete Pavement bid item. Incentive payment is not limited, either up or down, to the amount the schedule of items shows.

(2) The department will administer disincentives for compressive strength under the Disincentive Strength Concrete Pavement administrative item.

(3) Pay adjustment is based on contractor quality control testing unless alternate data is required to resolve disputed tests. Submit documentation for pay adjustment as soon as strengths are available using CMM 4-15-42 WS 4151.

(4) The department will adjust the pay for each lot as follows:

1. The department will determine the lot average strength and sample standard deviation according to CMM 4-15-42 figure 1. The department will not include results from sublots with air content less than the lower control limit. The department will weight results from all other full, partial, or combined sublots equally. The department will include the sublot strength tests less than 2500 psi (17.2 MPa) if the material is left in place.

2. The department will adjust pay based on the lot average strength minus one standard deviation as follows:

Lot Average - SD (psi)		Pay Adjustment (Dollars/SY)
Greater Than or Equal To	Less Than	
	2850	-0.55
2850	2950	-0.53
2950	3050	-0.45
3050	3150	-0.39
3150	3250	-0.31
3250	3350	-0.23
3350	3450	-0.17
3450	3550	-0.11
3550	3650	-0.05
3650	3750	0.00

Lot Average - SD (psi)		Pay Adjustment (Dollars/SY)
Greater Than or Equal To	Less Than	
3750	3850	+0.07
3850	3950	+0.13
3950	4050	+0.17
4050	4150	+0.20
4150	4250	+0.23
4250	4350	+0.24
4350	4450	+0.26
4450	4550	+0.27
4550	4650	+0.27
4650		+0.28

(5) The department will apply the disincentive pay adjustment to the total area of the strength lot. The department will not pay incentive for any quantity of concrete incorporated into the work with air content or slump outside the limits specified in B.7.5 and B.7.7.

(051206) 415-065

22. QMP HMA Pavement Nuclear Density, Item 460.2500.S.

A Description

A.1 General

Replace 460.3.3.2 (1) and 460.3.3.2(4) with the following:

(1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to section 460 of the standard specifications and as modified in this special provision.

(2) Provide and maintain a quality control program defined as all activities and documentation of the following:

1. Selection of test sites.
2. Testing.
3. Necessary adjustments in the process.
4. Process control inspection.

(3) Chapter 4 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures. Obtain the CMM from the department's extranet site at: http://trust.dot.state.wi.us/extntgtwy/dtidcons/constnds/cmm/cmm.htm.

B Quality Control Program Requirements

B.1 Personnel Requirements

(1) Perform HMA pavement density (QC, QV) testing with nuclear gauges under this provision using HTCP certified Nuclear Technician I operators.

B.2 Testing

(1) Conform to ASTM D2950 and CMM 4-5-90 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter position. Perform each test for 4 minutes of nuclear gauge count time.

B.3 Equipment

B.3.1 General

(1) Furnish nuclear gauges from the department's approved product list at http://www.atwoodsystems.com/materials that is used for necessary testing (QC, QV). The manufacturer will perform calibration of gauge or an approved calibration service within 12 months of time used on project. Retain a copy of the manufacturer's calibration certificate with the gauge.

B.3.2 Correlation of Nuclear Gauges

B.3.2.1 Correlation of QC and QV Nuclear Gauges

(1) Select a representative section of the compacted pavement prior to or on the first day of paving for the correlation process. The section does not have to be the same mix design.

(2) Correlate the two or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the correlation on 5 test sites jointly located. Record each density measurement of each test site for the QC, QV and back up gauges.

(3) Calculate the average of the difference in density of the 5 test sites between the QC and QV gauges. Locate an additional 5 test sites if the average difference exceeds 1 lb/ft^3 (16 kg/m^3). Measure and record the density on the 5 additional test sites for each gauge.

(4) Calculate the average of the difference in density of the 10 test sites between the QC and QV gauges. Replace one or both gauges if the average difference of the 10 tests exceeds 1 lb/ft^3 (16 kg/m^3) and repeat correlation process from B.3.2.1(2).

(5) Furnish 1 QC gauge passing the allowable correlation tolerances as the primary gauge. Perform all density testing on the project with the primary gauge.

(6) Remove or replace a gauge if it fails to stay within the allowable tolerances set on the reference site. Re-correlation is not necessary if a back-up gauge was tested in the original correlation process.

B.3.2.2 Correlation Monitoring

(1) Establish a project reference site approved by the department. Clearly mark a flat surface of concrete or asphalt or other material that will not be disturbed during the duration of the project. Perform correlation monitoring of the QC, QV, and all back-up gauges at the project reference site.

(2) Conduct an initial 10 density tests using a gauge on the project reference site and calculate the average value to establish a reference value. Use the reference value as a control to monitor the calibration of the gauge for the duration of the project.

(3) Check the gauges on the project reference site a minimum of 1 test per day if paving on the project and compare to the reference value. Maintain the reference site test data for each gauge at an agreed location.

(4) Calculate difference in measured density verses reference values and investigate if the difference exceeds 1.5 lb/ft^3 (24 kg/m^3). Conduct 5 additional tests at the reference site once the cause of deviation is corrected and record and calculate the average. Remove the gauge from the project if the average exceeds 1.5 lbs/ft^3 (24 kg/m^3).

(5) Perform the correlation process specified in B.3.2.1 with replacement QC or QV gauge.

B.4 Quality Control Testing and Documentation

B.4.1 Traffic Lanes, Shoulders, and Appurtenances

(1) Conduct a minimum of 7 random QC nuclear gauge density tests per lot.

(2) Prior to the start of paving select the frequency of QC testing for each layer of paving and inform the engineer. Maintain the selected frequency for the duration of the project unless approved by the engineer. Table 1 is provided to assist in selecting the frequency of testing for various confidence limits with a tolerance of +1.0 lb/ft^3 (16 kg/m^3) but does not have to be used.

Confidence Level	Number of Tests
95	24
90	17
85	13
80	11
75	9
70	7

Table 1

(3) Select QC test site, station and offset distance randomly as specified in CMM 4-5-90 prior to paving and provide a copy to the engineer. Locate and mark QC density test site for each lot prior to performing test. Perform density test prior to open traffic on pavement.

(4) Calculate pavement density by averaging the nuclear density reading for the selected number of tests for a lot. Additional tests for compaction process control can be taken but not used in calculating pavement density for a lot.

(5) Document QC density test data as specified in CMM 4-5-90. Provide the engineer the original data sheet for each lot within 24 hours of QC testing completion for that lot.

B.4.2 Side Roads, Crossovers, Turn Lanes, and Ramps (< 750 tons per layer)

(1) A lot represents a combination of the lanes of each side road leg of an intersection for each layer.

(2) A lot represents a turn lane, crossover, and ramp for each layer.

(3) Perform the number of tests per lot as specified in Table 2.

Side Roads, Turn Lanes, Crossovers, Ramps: Lot/Layer tonnage	Minimum Number of Tests Required
< 250 Tons	3
251 to 500 tons	5
501 to 750 tons	7

Table 2

B.4.3 Corrective Action

(1) Notify the engineer immediately when a lot average density value or individual test is 3.0 percent or greater, below the specified minimum in 460.3.3.1 of the standard specifications.

(2) Remove and replace the area of the layer specified in B.4.3(1) and replace with material that meets the specified minimum density. Determine limits of the area to be removed by measuring density of the layer at 50-foot (15 m) increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing 50-foot (15 m) increments until a point of acceptable density is

found as specified in 460.5.2.2(1) of the standard specifications. Removal and replacement of material may be required if extended testing is in a previously accepted lot. Testing in a previously accepted lot will not be used to recalculate a new lot density.

(3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full width of the paver pass, lying in the traffic lane or lanes. Shoulders shall be exempt from this calculation.

(4) Retesting and acceptance of replaced pavement will be as specified in 105.3 of the standard specifications.

(5) Tests indicating greater than 3.0 percent density below the specified minimum and further tests taken to determine the limits of unacceptable area to be removed, will be excluded from computation of lot density. Test results of the replaced pavement will not be included in the original lot density computations unless the quantity replaced represents 20 percent or greater of the lot quantity.

C Department Testing

C.1 Verification Testing

(1) The department will have an appropriately HTCP certified technician perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a frequency of 10 percent of the lots and a minimum of one lot per mix design. The lots selected will be within the active work zone and under the contractor's construction traffic control. The verification average density for a lot will be the average of at least 7 tests for the lot. It is strongly recommended that the same frequency of test for QC be used for QV.

(2) Verification test results that meet required contract density will indicate QC test results are acceptable. Verification tests within 1.5 lb/ft^3 (24 kg/m^3) of the QC average lot test results will indicate the QC test results are acceptable. Verification tests resulting in a difference greater than 1.5 lb/ft^3 (24 kg/m^3) of the QC average lot test result will be resolved with dispute resolution specified in D. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

(3) The department will document QV density test data on project data sheets used for QC testing. The department will provide the contractor a copy of the sheet for each lot within 24 hours of QV testing completion.

D.2 Independent Assurance Testing

(1) Independent assurance is unbiased testing the department performs to evaluate the department's verification and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform the

independent assurance review according to the department's independent assurance program.

E Dispute Resolution

(1) Investigation of non-correlating QC and QV test results will be conducted to determine cause. Gauges will be checked on the project reference site and if one is found to be out of calibration, the gauge will be removed from the project and the other gauge's test results will be used for material acceptance.

(2) Continue investigation in the work zone by analyzing testing, calculation, and documentation procedures if the gauges are both in calibration. If the testing discrepancy cannot be identified, the contractor may elect to accept the QV lot density test results or retesting of the lot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.

(3) If investigation finds that both gauges are in error, the contractor and engineer will reach a decision on resolution through mutual agreement.

F Final Acceptance

(1) The department will accept QMP HMA Pavement Nuclear Density based on the contractor QC tests, unless it is shown through the verification or the dispute resolution process that the contractor's test results are in error.

(2) The department will not accept QMP HMA Pavement Nuclear Density if primary gauge or assigned backup gauge is not used for contractor QC tests.

G Measurement

(1) The department will measure QMP HMA Pavement Nuclear Density for payment by the ton based on the quantity of HMA pavement acceptably completed.

H Payment

H.1 General

(1) The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
460.2500.S	QMP HMA Pavement Nuclear Density	Ton

H.2 QMP HMA Pavement Nuclear Density

(1) Payment is full compensation for furnishing all labor, tools, equipment testing and record keeping; and for furnishing all incidental work necessary to complete the contract work.

H.2.1 Disincentive for QMP HMA Pavement Nuclear Density

(1) The department will administer density disincentives under the Disincentive Density HMA Pavement and disincentive Density Asphaltic Material administrative items. If the lot density is less than the specified minimum the department will reduce pay

based on the contract unit price and as specified in 460.5.2.2 of the standard specifications.

(2) The department will administer density disincentives under the Disincentive Density HMA Pavement and disincentive Density Asphaltic Material administrative items. If the lot density is not performed with the primary gauge or assigned backup the department will reduce pay based on the contract unit price and as determined by dispute resolution process.

(100906) 460-020

23. QMP Concrete Structures; Incentive Strength Concrete Structures, Item 502.0400.S.

A Description

A.1 General

(1) Conform to standard specifications 501, 502, and 504 as modified in this special provision. Apply this special provision to all other cast in place concrete placed under the following bid items:

502.0100	Concrete Masonry Bridges
502.0200	Concrete Masonry Bridges HES
502.1100	Concrete Masonry Seal
504.0100	Concrete Masonry Culverts
504.0200	Concrete Masonry Culverts HES
504.0500	Concrete Masonry Retaining Walls
504.0600	Concrete Masonry Retaining Walls HES

(2) Provide and maintain a quality control program, defined as all activities and documentation of the following:

1. Mix design.
2. Production control, placement control, and inspection.
3. Sampling, testing, and making necessary adjustments related to the production of ready-mixed concrete conforming to the contract.

(3) Chapter 4 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:

http://www.dot.wisconsin.gov/business/engrserv/index.htm

(4) The department's Materials Reporting System (MRS) software allows contractors to submit data to the department electronically, estimate pay adjustments, and print selected reports. Qualified personnel may obtain MRS software from the department's web site at:

http://atwoodsystems.com\mrs

A.2 Pre-Pour Meetings

(1) Arrange at least two pre-pour meetings to discuss concrete placement. Discuss the placement schedule, personnel roles and responsibilities, testing and quality control, and how test results will be communicated. Schedule the first meeting before placing any concrete and the second before placing any bridge deck concrete. Ensure that representatives from all parties involved with concrete work, including contractor, sub-contractor, ready mix supplier, testers, and the project manager, attend these meetings.

A.3 Contractor Testing for Small Quantities

(1) The department defines a small quantity for each individual applicable bid item, as a plan quantity of 150 cubic yards (114.7 m^3) or less of concrete 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.
2. The engineer may accept aggregate gradation based upon one or both of the following:
   - Satisfactory records of previous testing.
   - At least one test performed before beginning concrete production.
3. Divide the concrete placed under each bid item into approximately uniformly sized sublots as follows:

QUANTITY PLACED	MINIMUM REQUIRED NUMBER OF SUBLOTS[1]
≤ 50 cubic yards (38.2 m^3)	One sublot
> 50 cubic yards (38.2 m^3) and ≤ 100 cubic yards(76.5 m^3)	Two sublots
> 100 cubic yards (76.5 m^3) and ≤ 150 cubic yards(114.7 m^3)	Three sublots

[1] If the quantity placed overruns 150 cubic yards (114.7 m^3), create overrun sublots to test at a rate of one additional sublot for 50 cubic yards (38.2 m^3), or fraction of 50 cubic yards (38.2 m^3), of overrun.

4. No concrete control charts are required. Submit test results to the engineer each day as they become available. Assure that all properties are within the limits specified in the standard specifications for each sublot tested and that the sublot compressive strength equals or exceeds f'c.

B Materials

B.1 Quality Control Plan

(1) Submit a comprehensive written quality control plan. Construct the project as the plan provides. Submit the plan to the engineer no later than ten business days before

placing concrete. Do not begin concrete production or change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories before producing concrete and as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart including names, telephone numbers, current certifications and/or titles, and roles and responsibilities of all QC personnel.
2. The process by which quality control information and corrective action efforts will be disseminated to the appropriate persons including materials suppliers. Include a list of recipients, the communication means that will be used, action time frames, and report formats.
3. Preliminary mix information including anticipated producers, manufacturers, and sources of mix materials, and the name, title, and phone number of the person responsible for developing the mix design.
4. The locations of the QC laboratories for mix design, aggregate testing, cylinder curing, concrete testing, and compressive strength testing. Include a description of the sampling and testing equipment.
5. Aggregate information including production and handling operations; how contamination, segregation, and degradation will be minimized; and anticipated concrete mix aggregate gradations and limits.
6. The procedures for delivering, storing, and managing all mix materials.
7. Facilities, procedures, and controls used to produce a mix conforming to the specifications and the mix design.
8. The equipment, times, and methods used to deliver the concrete mix to the work site and to the point of placement.
9. The initial and routine equipment checks and documentation performed on scales, water meters, admixture dispensers; and delivery, placing, surfacing, and curing equipment..
10. The methods for monitoring and recording the materials used in each batch.
11. The equipment and procedures for placing concrete and controlling the alignment, profile, cross slope, and thickness.
12. The procedures that will be employed to correct problems as they occur.
13. A description of the methods for finishing, texturing, and curing concrete.
14. The types, standards, and frequency for contractor quality control (QC) testing. Conform to B.7 of this special provision and include, but do not limit discussion to, the following:
    - The number of tests performed for aggregate gradations, moisture and fines; air content, temperature, slump, and compressive strength.
    - Procedures for checking and documenting steel cover including locations and testing methods.
    - Procedures for checking and documenting surface smoothness.
    - Proposed corrective actions for each tested property.
15. The lot layouts for compressive strength evaluation.
16. Provisions for responding to adverse weather conditions; such as precipitation, and hot and/or cold weather placement.

B.2 Personnel Requirements

(1) Perform the material sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a PCC technician certified under HTCP at level I present at the project site, prepared and equipped to perform required sampling and testing whenever placing concrete.

B.3 Laboratory Requirements

(1) Perform the concrete mix design, aggregate testing, cylinder curing, and compressive strength testing at a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Quality Management Section
3502 Kinsman Blvd.
Madison Wisconsin 53704
Telephone: 608-246-3246
http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm

B.4 Equipment Requirements

(1) Furnish the necessary equipment and supplies for performing quality control testing. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM 4-15-12 and maintain a calibration record at the laboratory.

B.5 Concrete Masonry Mixes

B.5.1 General

(1) Have a PCC technician certified under HTCP at level II develop new concrete mixes for structures on the project. Test new mixes at a department-qualified laboratory. Alternatively the contractor may submit established mixes qualified exclusively by field performance.

(2) At least three business days before producing concrete, submit to the engineer two copies of a concrete mix report. Include signature blocks for both the contractor's mix developer and the department's project engineer on the mix report cover sheet. Before the engineer’s review, have the mix developer sign and date each copy attesting that all information in the report is accurate and true. The engineer will review, comment, sign, and date each copy of the report. The engineer’s signature will verify that the engineer had the opportunity to review the mix report, to check that it meets the concrete mix requirements, and to comment. The engineer will keep one original signed copy and return the other copy to the contractor within three business days of receiving the report.

B.5.2 Concrete Mix Design

B.5.2.1 General

(1) Delete standard specifications501.2.5.3.4, 501.2.5.4.4, 501.3.2.1, 501.3.2.2, and 501.3.2.3. Delete the maximum limit for material passing the No. 200 (75 μm) sieve (P 200) from standard specification 501.2.5.3.1 and 501.2.5.4.2.

(2) For all bridge superstructure and substructure concrete, use a mix grade containing fly ash (A-FA), slag (A-S), both fly ash and slag (A-T), or blended cement (A-IP or A-IS).

(3) For concrete seals, use a grade D mix and construction methods conforming to standard specifications 501 and 502.

B.5.2.2 Documentation

(1) Provide mix design documentation ensuring that all materials conform to standard specifications 501.2, as modified in this special provision, unless the engineer waives specific requirements. Include documentation for contractor mix designs as follows:

1. Mix development: test dates, the name and location of the laboratory used to develop the mix design.
2. Mix: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, air content, and 28-day or earlier compressive strength.
3. Materials: type, brand, and source.
4. Aggregates: absorption, specific gravities, wear, soundness, freeze thaw test results if required, air correction factor, and proposed gradation control limits.

B.5.2.3 Concrete Mix Physical Requirements

(1) Qualify compressive strength according to ACI Code 318 chapter 5 subsections 5.3.1 through 5.3.3 and 5.5. Use either laboratory strength data for new mixes or field strength data for established mixes. Demonstrate that the 28-day compressive strength of the proposed mix will equal or exceed the 80 percent within limits criterion specified in E.3.

(2) Ensure that the cementitious content for grade A concrete equals or exceeds 565 pounds per cubic yard (335 kg/m3). For all superstructure and substructure concrete, unless the engineer approves otherwise in writing, conform to one of the following:

1. Use class C fly ash or grade 100 or 120 slag as a partial replacement for Portland cement. For binary mixes use 15% to 30% fly ash or 20% to 30% slag. For ternary mixes use 15% to 30% fly ash plus slag in combination. Percentages are stated as percent by weight of the total cementitious material in the mix.
2. Use a type IP, IS, or I(SM) blended cement.

(3) The target ratio of net water to cementitious material (W/Cm) for the submitted mix design shall not exceed 0.45 by weight. Net water includes free water on the aggregate surface but does not include water absorbed within the aggregate particles. Control the W/Cm ratio throughout production by adjusting batch weights for changes in the aggregate moisture as required under B.7.3.2.

(4) Ensure that the combined aggregate gradation conforms to the following, expressed as weight percentages of the total aggregate:

1. One hundred percent passes the 2 inch (50 mm) sieve.
2. The percent passing the 1 inch (25 mm) sieve is less than or equal to 89. The engineer may waive this requirement where the clear spacing between reinforcing bars is less than 2 inches (50 mm).
3. The percent passing the No. 4 (4.75 mm) sieve is less than or equal to 42, except if the coarse aggregate is completely composed of crushed stone, up to 47 percent may pass the No. 4 sieve (4.75 mm) sieve.
4. The P 200 (75 μm) is less than or equal to 2.3 percent.

(5) Do not use any chemical admixtures, other than air-entraining agents or water reducers from the department's approved products list, without conforming to the following:

1. Obtain the engineer's approval in advance.
2. Document, by independent laboratory test reports, that the admixture conforms to AASHTO M 194.

(6) Do not use mixes containing chloride based accelerators. The contractor may use mixes containing non-chloride accelerators in substructure elements only.

B.5.3 Mix Changes

(1) Prepare and submit changes to a concrete mix to the engineer for review before using that mix. Changes requiring the engineer's review include:

1. Source of any material.
2. Amounts of cementitious materials.
3. Adjustment of fine to total aggregate greater than ±3 percent by weight.
4. Admixtures used in the mix.

(2) Adjusting admixture dosages does not require the engineer's review.

B.6 Quality Control Documentation

B.6.1 Control Charts

(1) Maintain control charts when required by the test reporting procedures. Ensure that all test results are recorded and become part of the project records. Plot required test results on the control charts. Include random, non-random, and engineer requested testing but only include the contractor’s randomly selected QC test results in the 4-point running average. The contractor may plot other contractor-performed process control or informational test results on the control charts, but do not include them in 4-point running averages.

(2) Post control charts in an engineer-approved location both on the project and at the concrete production site. Update control charts daily. Ensure that the control charts include the project number, the test number, each test element, the applicable warning and control limits, the contractor’s individual test results, the running average of the last 4 data points, and the engineer’s verification and independent assurance test data points. Use the control charts as part of a process control system for identifying

potential problems and assignable causes. Format control charts according to CMM 4-15-12.

(3) Submit control charts to the engineer in a neat and orderly manner within 10 days after completing concrete production.

B.6.2 Records

(1) Document all observations, inspection records, mix adjustments, and test results daily. Submit test results to the department electronically using the MRS software. Complete all required data entry fields. Record other test results using the forms provided in CMM 4-15-42. Note other information in a permanent field record and, if appropriate, plot on control charts.

(2) Post cylinder strength summary tables for each lot in an engineer-approved location both on the project and at the concrete production site. Update cylinder strength summary tables daily.

(3) Submit original testing records to the engineer in a neat and orderly manner within ten days after completing concrete production.

B.7 Required Contractor Testing

B.7.1 General

(1) Perform all contractor tests required under this special provision as well as additional contractor testing described in the quality control plan. Use the test methods identified below or other engineer-approved methods to perform the following tests:

Gradations	AASHTO T-11[1] & T-27[1]
P 200 (75 μm)	AASHTO T 11[1]
Aggregate moisture	AASHTO T 255[1]
Air content	AASHTO T 152[2]
Slump	AASHTO T 119[2]
Temperature	AASHTO T 309
Compressive strength	AASHTO T 22, T 23, T 141, M 201

[1] As modified in CMM 4-25-50.

[2] As modified in CMM 4-25-70.

(2) The department may periodically observe contractor sampling and testing, and direct additional contractor sampling and testing for department evaluation. Ensure that all test results are available for the engineer's review at any time during normal working hours.

B.7.2 Aggregate Gradation Testing

B.7.2.1 Sampling and Testing Requirements

(1) Randomly sample and test the individual aggregate gradations according to AASHTO T 11 and AASHTO T 27 as modified by the department. Have an HTCP certified aggregate sampling technician, aggregate technician I or IPP perform all sampling.

Have an HTCP certified aggregate technician I or IPP test the aggregate and document the results.

(2) Test during aggregate production as follows:

DAILY AGGREGATE PRODUCTION in tons or Mg	MINIMUM FREQUENCY PER STOCKPILE tests per day
≤1000	1
>1000 - ≤2000	2
>2000	3

(3) If the aggregate was produced before the contract and production records are not available or not acceptable to the engineer, test during concrete production. Test each stockpile conforming to whichever of the following is most frequent:

- Once for each 250 cubic yards (200 m3) of concrete produced for WisDOT projects.
- Once per workweek while producing concrete for WisDOT projects.

(4) For testing performed during aggregate production, conform to the individual gradation limits documented in the contractor's quality control plan for the coarse and fine aggregate fractions. For testing performed during concrete production, conform to the combined gradation limits documented in the contractor's quality control plan.

(5) Ensure that only results of randomly selected QC tests are included in the 4-point running average.

(6) Use control limits for sieve sizes as identified in contractor's quality control plan. Gradation warning limits are inside the upper and lower control limit values by one percentage point for all sieves except as follows:

1. The upper warning limits for P 100 (150 μm) and P. 200 (75 μm) are inside the control limit by 0.5 percent.
2. For sieves allowing 100 percent passing, there is no upper warning limit. For sieves with 0 percent passing, there is no lower warning limit.

(7) Wash each sample of fine aggregate and the first four samples of each of the coarse aggregates. If P 200 (75 μm) for the combined gradation is less than the warning limit, wash at least every 10th sample of each of the coarse aggregates. If P 200 (75 μm) for the combined gradation is greater than or equal to the warning limit, wash each sample of the coarse aggregate until 4 consecutive tests are less than the warning limit.

B.7.2.2 Documentation

(1) Maintain control charts at the laboratory for each aggregate stockpile. Maintain a chart for each control sieve for each material. Record contractor test results the same day tests are conducted.

B.7.2.3 Corrective Action

(1) When the 4-point running average value approaches a warning limit, consider corrective action. Ensure that any corrective action is documented and becomes part of the project records.

(2) Document whenever a 4-point running average exceeds the warning limits. When a second consecutive running average value exceeds the warning limits, take corrective action. Continue corrective action until two consecutive average points are within the warning limits.

(3) Notify the engineer whenever an individual test value exceeds a control limit. Material is nonconforming if an individual test result exceeds the control limit. The quantity of nonconforming material includes the material of the first test exceeding the control limit, continuing to but not including, the material from the first subsequent test that is within the control limits. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard specifications106.5.

B.7.3 Aggregate Sampling and Testing During Concrete Production

B.7.3.1 General

(1) Have an HTCP certified aggregate sampling technician, aggregate technician I or IPP, or PCC technician IA perform all sampling. Ensure that an HTCP certified PCC technician IA or a technician with both PCC technician I and aggregate technician I or IPP certifications performs all testing, does calculations, and documents the results.

B.7.3.2 Aggregate Moisture Content

(1) Determine aggregate moisture content according to AASHTO T 255. The contractor may use the same sample used for P 200 (75 μm) testing.

(2) Measure and record the fine and coarse aggregate moisture content whenever conditions change. Test at least once for each 50 cubic yards (38.2 m^3) of concrete produced for WisDOT projects, except 1 test per day is sufficient under constant conditions. Record the time the sample was taken on the combined P 200 (75 μm) control chart.

(3) Calculate target batch weights for each mix when production of that mix begins. Whenever the moisture content of the fine or coarse aggregate changes by more than 0.5 percent, adjust the batch weights to maintain the design W/Cm ratio.

B.7.3.3 Material Passing the No. 200 Sieve (P 200)

B.7.3.3.1 Sampling and Testing

(1) Determine P 200 (75 μm) for both fine and coarse aggregates according to AASHTO T 11 as modified by the department.

(2) Initially, test at least once for each 50 cubic yards (38.2 m^3) of concrete produced for WisDOT projects, except 1 test per day is sufficient for constant mix conditions. When 2 consecutive 4-point running averages are below the warning limit, the engineer may allow reduced testing down to a minimum of once per 5 days of concrete production. If a subsequent individual test exceeds the warning limit, return to the initial frequency.

(3) Document results on a combined gradation control chart for P 200 (75 μm). Use the control limits defined in the contractor's quality control plan or mix design report. Ensure that only results of QC tests are included in the 4-point running average.

B.7.3.3.2 Corrective Action

(1) When an individual test approaches a warning limit, consider corrective action. Document corrective actions and include that documentation in the project records.

(2) Notify the engineer if an individual test exceeds the warning limits. If a second consecutive individual test exceeds the warning limits, the engineer and contractor will determine the contractor's course of corrective action. If the corrective action improves the property in question such that additional individual tests are within the warning limits, the contractor may continue production. If the correction does not improve the property, and new individual tests stay in the warning band, repeat the steps outlined here in B.7.3.3(2) starting with notifying the engineer.

(3) Notify the engineer whenever an individual test value exceeds a control limit. Material is nonconforming when an individual test exceeds the control limit. The quantity of nonconforming material includes the material of the first test exceeding the control limit, continuing to but not including, the material from the first subsequent test that is within the control limits. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard specifications106.5.

B.7.4 Compressive Strength

(1) The department will pay for concrete strength on a lot-by-lot basis adjusting the contract price based on the compressive strength of contractor QC cylinders. The department will accept or reject concrete on a sublot-by-sublot basis evaluating material for removal and replacement based on core strengths. There is no strength requirement for grade D concrete placed under the Concrete Masonry Seal bid item.

(2) Have an HTCP certified PCC technician I sample or observe sampling, fabricate cylinders, perform initial curing, and handle unhardened cylinders. Have a department qualified laboratory moist cure cylinders and cores. Have an HTCP certified concrete compressive strength tester, working in a department-qualified laboratory, perform cylinder and core compression tests.

B.7.4.1 Lot and Sublot Requirements

(1) Designate the location and size of all lots for the project before placing concrete. Ensure that no lot contains concrete of more than one mix, as defined in B.5.3, and does not exceed 500 cubic yards (400 m^3). Designate separate lots for structural concrete deposited underwater.

(2) Divide each lot into sublots 50 cubic yards (38.2 m^3) or smaller. Do not designate more than one sublot per truckload of concrete.

B.7.4.2 Sampling

(1) Have a certified technician determine random sublot sampling locations as described in CMM 4-15-12. Sample at the point of placement and according to AASHTO T 141. Collect enough concrete to fabricate three 6-inch by 12-inch (150 mm x 300 mm) cylinders; test air content, slump, and temperature; and where needed, additional concrete to fabricate 3 companion cylinders.

(2) Cast and initially cure cylinders according AASHTO T 23. Mark each cylinder to identify the lot and sublot it represents.

(3) For one sublot per lot, fabricate three companion cylinders from the same sample used for casting the QC cylinders. Provide all materials, fabrication, initial curing, and handling required for companion cylinders for up to three calendar days following fabrication.

B.7.4.3 Concrete Cylinder Curing

(1) Provide initial field curing for up to 48 hours. Between 24 and 48 hours after fabrication, transport the cylinders to a laboratory for standard curing according to AASHTO M 201.

B.7.4.4 Compressive Strength Testing

(1) Have an HTCP certified compressive strength tester in a department-qualified laboratory, perform compressive strength testing and document the results. Randomly select 2 QC cylinders to test at 28 days for percent within limits (PWL).

(2) Determine the compressive strength in psi for each cylinder according to AASHTO T 22. Test each cylinder to failure. Use a compression machine that automatically records the date, time, rate of loading, and maximum load for each cylinder. Include a printout of this information with the strength documentation for each cylinder tested.

(3) Compare the strengths of the 2 randomly selected QC cylinders and determine the 28-day sublot average strength as follows:

- If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC cylinders.
- If the lower strength divided by the higher strength is less than 0.9, break one additional cylinder and average the 2 higher strength cylinders.

B.7.4.5 Removal and Replacement

(1) The department will evaluate the sublot for possible removal and replacement if the 28-day sublot average strength is lower than f'c minus 500 psi (3.5 MPa). The value of f'c is the design stress the plans show. The department may assess further strength penalty or require removal and replacement only after coring the sublot.

(2) The engineer may initially evaluate the sublot strength using a non-destructive method. Based on the results of non-destructive testing, the department may accept the sublot at the previously determined pay for the lot, or direct the contractor to core the sublot.

(3) If the engineer directs coring, obtain three cores from the sublot in question. Have an HTCP certified PCC technician I perform or observe core sampling according to AASHTO T 24. Determine core locations, subject to the engineer's approval, that do not interfere with structural steel. Fill all core holes with non-shrink grout.

(4) Have an independent consultant test cores according to AASHTO T 24, except test cores dry after air-curing if the cores are from above-grade concrete elements that will be only superficially wet in service.

(5) If the 3-core average is greater than or equal to 85 % of f’c, and no individual core is less than 75 % of f’c, the engineer will accept the sublot at the previously determined pay for the lot. If the 3-core average is less than 85 % of f’c, or an individual core is less than 75 % of f’c, the engineer may require the contractor to remove and replace the sublot or assess a penalty of $25 per cubic yard or more.

B.7.5 Air Content

(1) On each day of production, test air content at the point of placement at start-up and as frequently as practicable until the concrete meets the specifications and the production process is under control. Subsequently, test air content for each compressive strength sublot. Have an HTCP certified PCC technician I or IA test air content according to AASHTO T 152, as modified by the department. Test concrete taken from the same sample used for QC strength cylinders, and as the engineer directs.

(2) The lower and upper control limits for air content are 4.5% and 7.5%. The lower warning limit for air content is 5.0%. There is no upper warning limit.

B.7.5.1 Documentation

(1) Maintain a control chart at a fixed location on the project site. Ensure that all test results are recorded and become part of the project records. Chart all results on the same day tests are conducted. Record the results of required start-up and corrective action non-random test results on the air content control charts, but do not included them in the 4-point running average.

(2) Document admixture dosage rates, time of day, and air temperature on the combined gradation control chart for P 200 (75 μm) whenever changing an admixture dosage rate.

B.7.5.2 Corrective Action

(1) If an individual air test is between the lower warning limit and lower control limit, perform non-random testing on as many subsequent loads as possible until an individual test result is above the warning limit. At that point the contractor may resume regular random testing.

(2) When the 4-point running average value trend is towards the lower warning limit or the upper control limit, consider corrective action.

(3) Notify the engineer if a 4-point running average is less than the lower warning limit. If a second consecutive running average is below the warning limit, the engineer and contractor will determine the contractor's course of corrective action. If the corrective action improves the property in question such that the new running average, after 4 additional individual tests, is between the lower warning limit and upper control limit, the contractor may continue production. If the new running average is below the lower warning limit, repeat the steps outlined here in B.7.5.2(3) starting with notifying the engineer.

(4) If an individual air test is outside the control limits, notify the engineer, and perform additional air tests as often as practicable on subsequent loads until the air content is inside the control limits. The material is nonconforming when an individual test exceeds the control limit. Material from the load with the first test exceeding the control limit, continuing to but not including the load with the first subsequent test within the control limits, is nonconforming. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in standard specifications106.5.

B.7.6 Concrete Temperature

(1) Have an HTCP certified PCC technician I or IA measure concrete temperature according to AASHTO T 309. Test concrete taken from the same sample used for QC strength cylinders. Record concrete temperatures on the air content control chart. Conform to the hot weather concreting provisions specified in standard specifications501.3.8.2.

B.7.7 Slump

(1) Have an HTCP certified PCC technician I or IA measure slump according to AASHTO T 119. On each day of production, test slump at the point of placement at start-up and as frequently as practicable until the concrete meets the specifications and the production process is under control. Subsequently perform slump testing at the same frequency and from the same sample as used for strength cylinders. Make additional slump tests as the engineer directs. Measure slump to the nearest 1/4 inch (5 mm). Ensure that slump at the point of placement is 3 inches (100 mm) ± 1 inch (25 mm), except, for concrete placed underwater, conform to standard specifications502.3.5.3.

B.8 Department Testing

B.8.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all verification and independent assurance personnel for the project.

(2) Except for strength, the department will provide test results to the contractor within two business days after the department obtains the sample.

B.8.2 Verification Testing

(1) The department will have an HTCP technician, or ACT under the direction of a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will sample randomly at locations independent of the contractor's QC work. In all cases, the department will conduct the verification tests in a separate laboratory and with separate equipment from the contractor's QC tests.

(3) The department will perform verification testing as follows:

	Testing Frequency Guide[1]	Sampling Material and Location	Test Method	Alternate Test Methods
Air Content	1 per lot	Plastic concrete	AASHTO T 152 as modified	Hardened air content testing[2] after construction
28-day Compressive Strength	1 per lot	Cylinders	AASHTO T 22, T 23 & T 141 as modified	Random cores[2] after construction

[1] The engineer may increase the frequency at start-up or as necessary to validate the quality of the materials. The engineer may reduce the frequency based on a history of satisfactory contractor or material performance.

[2] Evaluation of test results should account for systematic differences in testing methods or sampling locations.

(4) Plot verification test results on the contractor's quality control charts as specified in B.6.1.Do not include verification test results in the 4-point running average.

(5) If verification tests conform to specifications, no further action is required. If verification tests do not conform to specifications, the engineer and contractor will jointly investigate any testing discrepancies. The investigation may include additional

testing as well as review and observation of both the department's and contractor's sampling and testing procedures and equipment. Both parties will document all investigative work.

(6) Correct all deficiencies. If the contractor does not respond to an engineer request to correct a deficiency or resolve a testing discrepancy, the engineer may suspend production until action is taken. Resolve disputes as specified in B.9.

B.8.3 Independent Assurance Testing

(1) Independence assurance is unbiased testing the department performs to evaluate the department's verification and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform the independent assurance review according to the department's independent assurance program, which may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

(2) Plot the independent assurance test results on the quality control charts as specified in B.6.1. Do not include independent assurance test results in the 4-point running average.

(3) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend production until action is taken. Resolve disputes as specified in B.9.

B.9 Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

(2) If the project personnel cannot resolve a dispute and the dispute affects payment or could result in incorporating nonconforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material

or otherwise determine the final disposition of nonconforming material as specified in standard specifications106.5.

B.10 Acceptance

(1) The department will accept concrete masonry based on the contractor QC tests unless it is shown through the verification or the dispute resolution process that the contractor's test results are in error.

C (Vacant)

D Measurement

(1) The department will measure Incentive Strength Concrete Structures by the dollar, adjusted as determined in E.3 for acceptably completed concrete masonry.

E Payment

E.1 General

(1) The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
502.0400.S	Incentive Strength Concrete Structures	DOL

E.2 QMP Testing

(1) Costs for all sampling, testing, and documentation required under this special provision and all charges incurred for coring, including traffic control, are incidental to the work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the Non-performance of QMP administrative item.

E.3 Pay Adjustment for Strength

(1) The department will pay incentive for compressive strength under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
502.0400.S	Incentive Strength Concrete Structures	DOL

(2) Incentive payment is not limited, either up or down, to the amount the schedule of items shows.

(3) The department will administer disincentives for compressive strength under the Disincentive Strength Concrete Structures administrative item.

(4) The department will adjust pay for each lot using percent within limits (PWL) of the 28-day sublot average strengths for that lot. The department will measure PWL relative to the lower specification limit of 4000 psi. The department will not pay incentive for any quantity of concrete incorporated into the work with properties outside the control limits specified in subsection B of this special provision.

(5) Submit strength results to the department electronically using the MRS software. The department will validate all contractor data before determining pay adjustments.

(6) The department will adjust pay for each lot using equation "QMP 2.01" as follows:

PERCENT WITHIN LIMITS (PWL)	PAY ADJUSTMENT[1][2] (dollars per cubic yard)
≥99 to 100	10
≥90 to <99	0
≥50 to <90	(7/8 x PWL) - 78 3/4
<50	-35

[1] The department will not pay incentive if the lot standard deviation is greater than 350 psi.

[2] For lots with less than four sublots, there is no incentive but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 4000 psi by $35 per cubic yard.

(100906) 502-045

24. Culvert Pipe.

Revise section 520 of the standard specifications as follows.

Supplement 520.2 with the following:

Under the items of Culvert Pipe, Class III, for those culvert pipes that are designated on the plans to be installed under minor side roads or private entrances, the contractor may elect to furnish corrugated aluminum pipe (CACP) in the thickness designated and conforming to the requirements of section 525 of the standard specifications; corrugated polyethylene pipe, (CPCP) 12 to 36-inches (300 to 900 mm) diameter, conforming to the requirements of section 530 of the standard specifications; polymer coated steel spiral rib (SSR) pipe; corrugated polyvinyl chloride (CPVC) pipe, 12 to 36- inches (300 to 900 mm) diameter in lieu of reinforced concrete pipe (RCCP) or corrugated steel pipe (CSCP).

Corrugated PVC pipe and fittings shall conform to the requirements of standard specification for Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe With a Smooth Interior and Fittings, ASTM Designation: F949. Joint connections shall include gaskets as recommended by the manufacturer.

Steel spiral rib pipe and fittings shall conform to the requirements of the standard specifications for Corrugated Steel Pipe, Polymer Precoated, for Sewers and Drains, AASHTO Designation M245, Type IR. The grade of polymer coating shall be 10/10 (250/250). The thickness of the steel sheet shall be as specified in the plans. Couplings shall be furnished and assembled with gaskets in accordance to AASHTO M246.

Supplement 520.3 with the following:

For corrugated PVC pipe and polymer coated steel spiral rib pipe:

Trench width shall be in accordance to Standard Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe, ASTM Designation D 2321. Minimum trench width shall be not less than the greater of either the pipe outside diameter plus 16-inches (400 mm) or the pipe outside diameter times 1.25 plus 12-inches (300 mm).

Joints for sewer pipe shall be sealed to be soil tight in accordance to AASHTO Standard Specifications for Highway Bridges, section 26.4.2.4 (e).

Pipe with reduced diameter of more than 5 percent shall be removed and relayed, if undamaged, or replaced with a new pipe at no cost to the department.

If PVC or CPCP pipe is used, provide the appropriate size steel endwall at no additional cost beyond the cost of the endwall specified in the contract.
(090105) 520-010

25. Concrete Barrier Temporary Precast Contractor Furnished & Delivered.

This work shall be in accordance with section 603 of the standard specifications and as hereinafter provided.

Any approved concrete barrier system listed in the department's Approved Product List may be furnished as an acceptable alternate to the concrete barrier temporary system shown in standard detail drawing Concrete Barrier Temporary Precast, 12'-6".

When an alternate barrier system is used on bridge decks or locations where the drop-off exceeds two-feet, the system must be anchored as shown in the standard detailed drawing or in accordance with the manufacturer's recommendation. Additionally, the alternate barrier system may not be intermixed with the concrete barrier temporary system shown in standard detail drawing Concrete Barrier Temporary Precast, 12'-6", or the Concrete Barrier Temporary Precast 10'-0", in any single run or installation.
(041504) 603-010

26. Steel Thrie Beam Bullnose Terminal, Item 614.0220.S; Steel Thrie Beam, Item 614.0230.S.

A Description
This special provision describes constructing Steel Thrie Beam Bullnose Terminal attached to wood posts, and Steel Thrie Beam attached to wood posts, in accordance to section 614 of the standard specifications, and as hereinafter provided.

B Materials

B.1 General

Furnish and use corrugated sheet steel beams conforming to the current requirements of AASHTO M 180 Class A. Use sections manufactured from sheets with a nominal width of 29.5 inches.

Steel thrie beam shall be Type II (galvanized).

B.2 Fittings

All supports, fasteners, and other accessories, including post bolts, splice bolts, nuts, buttons, cable anchor plate, nose reinforcing cable, cable anchor bracket, steel plates, shims, tie rods, nails, and washers, shall be galvanized as specified in AASHTO M232.

C Construction

Under the Steel Thrie Beam Bullnose Terminal bid item, provide thrie beams, fabricated from steel plate to specified shape and dimensions, attached to treated wood posts and offset blocks as the plan show, unless specified otherwise.

Under the Steel Thrie Beam bid item provide steel thrie beam, fabricated from steel plate to specified shape and dimensions, attached to treated wood posts and offset blocks as the plan show, unless specified otherwise.

D Measurement

The department will measure Steel Thrie Beam Bullnose Terminal as each individual terminal, acceptably completed.

The department will measure Steel Thrie Beam by the linear foot, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
614.0220.S	Steel Thrie Beam Bullnose Terminal	Each
614.0230.S	Steel Thrie Beam	LF

Payment is full compensation for furnishing all materials including bearing blocks, posts, post bolts, splice bolts, nuts, buttons, cable anchor plate, nose reinforcing cable, cable anchor bracket, thrie beam guard, shims, tie rods, washers, and all supports; setting and driving posts; performing all excavation and backfilling; properly disposing of surplus material; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

(100906) 614-025

27. Steel Plate Beam Guard Class A.

Radii tighter than 75 feet shall be shop bent by the manufacturer prior to delivering the beam guard to the project site.
(082003) 614-020

28. Marker Posts Culvert End Flexible, Item 614.0620.S.

A Description
This special provision describes furnishing and installing flexible marker posts at culvert ends as shown on the plans, and as hereinafter provided.

B Materials
Provide post that has been manufactured specifically for use as a roadside marker from fiberglass, thermoplastic composition, or co-extruded polyethylene, and has been manufactured to either a curved or tubular shape.

Provide post that will remain intact and securely anchored, and will return to its original vertical orientation within an angle of 15 degrees after a series of 10 impacts (5 cold weather and 5 hot weather in accordance to the National Transportation Product Evaluation Program) by a typical passenger car or pickup truck traveling at 55 mph.

Provide post material that will not become brittle or soft, will not be affected by ultraviolet exposure, and will remain stable in temperatures from -20 degrees Fahrenheit to 110 degrees Fahrenheit.

Provide post that is colored white except the top six to nine-inches, which shall be black. Accomplish black marking by applying non-reflective sign tape to the front and back of the post.

Provide galvanized metal soil anchors, and galvanized miscellaneous hardware.

Provide Marker Post Culvert End Flexible that is: Safe-Hit, Model SH248GP3-WX; Davidson Plastics, Model FG-500; Carsonite International, Model CDS306601 (Survivor Post) or Model CFR406601 (Curve Flex); or equal. Provide a certificate of specification compliance for models and manufacturers not listed.

C Construction
Install flexible marker posts as shown on the plans. Position curved side of the curved post to face in the direction of travel on the highway.

Use only one marker where two or more apron endwalls are adjacent to each other.

Install soil anchor and marker post in front of the object being marked as referenced from the direction of travel by the approaching highway traffic.

D Measurement
The department will measure Marker Posts Culvert End Flexible by the unit in place, and the quantity to be paid shall be the number of posts furnished, installed and accepted.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
614.0620.S	Marker Posts Culvert End Flexible	Each

Payment is full compensation for furnishing and installing the posts; and for furnishing all labor, tools, equipment and incidentals necessary to complete the contract work.
(100906) 614-010

29. Stone or Rock Ditch Checks, Item 628.7560.S.

A Description
This special provision describes furnishing and installing stone or rock ditch checks as shown on the plans or as directed by the engineer, or both, and as hereinafter provided.

B Materials
Provide materials conforming to size requirements for size no. 2 coarse aggregate for concrete masonry or riprap in accordance to the 501.2.5.4.4 of the standard specifications. Railroad ballast or breaker run stone conforming to the following applicable gradations may also be used:

Railroad Ballast

Sieve Size	Percent by Weight Passing
2 Inch	100
1 Inch	20 – 55
3/8 Inch	0 – 5

Breaker Run Stone

Sieve Size	Percent by Weight Passing
5 Inch	100
1-1/2 Inch	0 - 50
3/8 Inch	0 - 5

Incorporate stone or rock in the ditch checks that is hard, sound, and durable, and meets the approval of the engineer.

C Construction

Place stone or rock ditch checks immediately after shaping of the ditches or slopes is completed. Place stone or rock ditch checks at right angles to the direction of flow and construct to the dimensions and in accordance to the details shown in the plans.

Remove sediment from behind the stone or rock ditch checks when it has accumulated to one half of the original height of the dam.

D Measurement

The department will measure Stone or Rock Ditch Checks in volume by the cubic yard of material incorporated in the work.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
628.7560.S	Stone or Rock Ditch Checks	CY

Payment is full compensation for furnishing, producing, crushing, loading, hauling, placing, shaping and maintaining Stone or Rock Ditch Checks; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

The quantity of sediment removed shall be multiplied by a factor of 10 and paid for as Common Excavation.

(082003) 628-050

30. Proving Period, Signs and Sign Posts.

Supplement subsection 637.3.2 of the standard specifications with the following:

An 180-day proving period shall apply to all permanent signing placed during each calendar month. The proving period shall commence on the last day of each month. During this period the engineer will make such observations as are necessary to determine failure of the sign and/or the installation. Should the end of the proving period fall within the months of December, January, or February, the engineer may extend the proving period for the installation a minimum number of days necessary for changes in weather and/or road condition to permit adequate observation of the signing in place.

If any sign or sign installation fails for any reason, except for failures caused by impacts of errant vehicles or roadway maintenance equipment, that sign or sign installation shall be repaired at the contractor's expense prior to final acceptance. For this purpose each sign in an assembly shall constitute a separate sign. The sign supports attached to the sign and placed in the ground shall constitute an installation.

Failure of the sign and/or the sign installation will be evaluated on an individual basis. The sign face including the legend shall show no effect due to weathering. The sign face

material shall show no evidence of buckling, bubbling or delaminating. The installation shall be true and plumb.

Each sign or assembly will be evaluated for failure as a unit. Any such installations determined by the engineer to have failed shall be replaced at the contractor's expense prior to final acceptance.
(051206) 638-005

31. Signs Reflective Type II.

Modify 637.2.4 of the standard specifications with the following:

Use stainless steel bolts, washers and nuts for signs mounted on sign bridges. Use clips on every joint for Sign Plate A 4-6 when mounted on a sign bridge. Inspect installation of clips and assure bolts and nuts are tightened to manufacturers recommended torque values.

Use aluminum vertical sign support beams that have a 4-inch wide flange and weigh 3.06 pounds per foot, or have a 5-inch wide flange and weigh 3.7 pounds per foot, or approved equal. Use beams a minimum of six feet in length or equal to the height of the sign to be supported, which ever is greater. Use U-bolts that are made of stainless steel, one-half inch diameter and of the proper size to fit the truss cords of each sign bridge. Install vertical sign support beams on each sign and use new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss.

Replace 637.2.4.1(2)2 of the standard specifications with the following:

Clips may be either stainless steel or ASTM B 108, aluminum alloy, 356.0-T6.

Supplement 637.3.2.1(3) of the standard specifications with the following:

Provide the engineer with 3 copies of drawings of the signs proposed to be furnished under this contract for approval.

Supplement 637.3.3.3(3) of the standard specifications with the following:

Furnish and install new aluminum vertical sign support beams on each sign and new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss for Type I or Type II Signs.

32. Field Facilities.

Replace subsection 642.2.2.1 (1) of the standard specifications with the following:

Provide the field office with up to three communication services, designated as follows: 1-voice, 1-fax, and 1-high speed Internet connection for computer(s) at setting no less than

384k and up to 1 MB. The high speed Internet connection must utilize either DHCP or PPPoE as the connection method and may be combined with the fax service.

Provide two programmable touch-tone telephones of which one will be a cordless type operating at no less than 2.4 GHz and one will have an answering machine unless voice mail service is available. The telephones and the communication services are for the sole purpose of the department staff.
(100906) 642-005

33. Traffic Control.

Supplement section 643 of the standard specifications with the following:

Obtain prior approval from the engineer for the location of egress or ingress of construction vehicles to prosecute the work.

The traffic requirements are subject to change at the direction of the engineer in the event of an emergency.

Submit to engineer for approval a detailed traffic control plan for any changes to the proposed traffic control standard detail drawings as shown in the plans. Submit this plan ten days prior to the pre-construction conference.

Provide 24 hours-a-day availability of equipment and forces to expeditiously restore lights, signs or other traffic control devices that are damaged or disturbed. The cost to maintain and restore the above items is incidental to the item as bid and no additional payment will be made.

Supply the name and telephone number of a local contact person for traffic control repair before starting work.

Have available at all times sufficient experienced personnel to promptly install, remove and reinstall the required traffic control devices to route traffic during the construction operations.

Conduct operations in such a manner that causes the least interference and inconvenience to the free flow of vehicles on the roadways. This includes the following:

a. Do not park or store any vehicle, piece of equipment, or construction materials on the right-of-way without written approval of the engineer.

b. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic.

c. All vehicles and equipment entering or leaving the live traffic lanes shall be equipped with a hazard identification beam (flashing yellow signal) capable of

being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1000 feet. Active beam when merging into or exiting a live traffic lane.

d. Do not disturb, remove or obliterate any traffic control signs, advisory signs, shoulder delineators or beam guard in place along the traveled roadways without the approval of the engineer. Repair or replace, at the contractor's expense, any damage done to the above during the construction operations.

34. Traffic Control Covering Signs, Item 643.0905.S.

A General

This special provision describes covering sign messages, maintaining the sign covering, and removing the sign covering, as shown on the plan and as hereinafter provided. The covered sign message shall be unreadable during daytime and nighttime hours.

B Materials

Provide covering material of sufficient durability to withstand the effects of weather. Provide porous cloth or sheet aluminum covering. If porous cloth covers are provided, only provide those that do not allow light to reflect from the sign face at night.

Tape, paper, plastic, or sheet metal covers will not be allowed.

C Construction

If porous cloth covering is provided, fold porous cloth covers over the sign edges and secure to the back of the sign. When only a portion of the sign is to be covered, cover only the area of the sign designated to be covered with the cloth cover held tightly in place using a rope system or other system as approved by the engineer. Secure the cloth so that it will not flap against the sign face.

If sheet aluminum covers are provided, rivet the covering to the sign face. Provide rivets that are a maximum of 3/16-inch in diameter. When only a portion of the sign is to be covered, provide aluminum cover sheeting that has on its face the same color as the surrounding sign.

D Measurement

The department will measure Traffic Control Covering Signs in units for each sign covered. Multiple covers on the same sign will be paid for separately. Multiple coverings and removals of sign coverings on the same sign will be paid for separately.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
643.0905.S	Traffic Control Covering Signs	Each

Payment is full compensation for furnishing, installing, maintaining, and removing sign covers; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.
(050205) 643-040

35. Traffic Control Signs Portable Changeable Message, Item 643.1050.S.

A Description

(1) This special provision describes furnishing, maintaining and installing portable changeable message signs as hereinafter provided.

B Materials

(1) Furnish equipment that enables one person to transport and operate the sign easily without assistance.

(2) Provide a complete Changeable Message Sign and trailer that is painted highway safety orange, except the sign case, which shall be painted black.

B.1 Sign Case

(1) Provide a sign that is capable of displaying a minimum of three lines of message text per message (frame). Each line shall consist of a minimum of eight characters, equally spaced a minimum of three inches and a maximum of four and one-half inches apart. Characters shall be a minimum of 17 inches high and a minimum of 11 inches wide and be legible from a minimum of 850 feet during both day and night conditions. The maximum sign width shall be eleven feet six inches. Provide a sign display that consists of either a continuous matrix of pixels or individual character modules consisting of smaller matrices of pixels. Each matrix forming a character shall consist of a minimum 35 pixels in a 5 horizontal pixel by 7 vertical pixel arrangement. Each pixel shall consist of a high-intensity LED cluster. The LED lamps shall run at a minimum voltage to provide extended life. Each pixel shall be either square in shape with a minimum of two-inch sides or round in shape with a minimum two-inch diameter. The driver board shall provide means for dimming. The entire sign shall complete a message change within 100 milliseconds.

(2) The circuit boards used in the sign case shall be constructed of components readily available from at least two other sources. Provide a schematic of the circuit boards.

(3) Provide a sign housing that is weatherproof and is constructed of aluminum. The front face shall be covered with either a one-piece, clear, non-glare, lexan panel, or individual one-piece, clear, non-glare, lexan panels.

B.2 Raise and Lower Mechanism

(1) Provide a sign that has a vertical mast assembly constructed of structural steel tubing. The sign shall include a built-in electric powered hydraulic pump capable of fully raising the sign within one minute. Provide signs that are equipped with a manual lifting device, which can be readily accessed. Provide signs that are designed to rise to

variable heights between its cradle and its full height; however, the bottom of the sign shall always be able to rise to a minimum height of seven feet above the ground, and capable of being locked at various heights. Provide a means to prevent tampering with the sign while raised to any locked height. The sign shall be capable of rotating 360 degrees atop the raise and lower mechanism (mast) while raised to any locked height. The mast assembly shall have a mechanism for locking the sign in place when it is extended. When extended, the sign shall be able to be locked at any display angle. Provide means to prevent tampering with the display angle once it is locked.

B.3 Controller

(1) Provide a programmable microprocessor (controller) that shall direct and control all sign operations. Provide a controller that is furnished with a full size 101 key keyboard, which contains standard alphanumeric keys. The keyboard shall be capable of being used for operation of the controller in creating, storing, and displaying additional sign messages. The controller shall be capable of storing a minimum of 200 messages (frames). The sign shall be capable of displaying from one to six messages in sequence. The manufacturer of the sign shall preprogram and install a minimum of 150 messages. In addition, provide a controller that:

1. Has the capacity for storage, recall and display of a minimum of 50 operator created messages.

2. Is able to recall from memory, preview, and display message sequences at least six frames long.

3. Is capable of storing a minimum of 25 message sequences, which can be created by the operator using any combination of preprogrammed messages and user created messages.

4. Allows the operator to vary the message flash rate and sequence rate in 1/4-second intervals or less with the flash rate extending from zero seconds to at least four seconds.

5. Allows the operator to generate a moving or flashing arrow symbol, which is capable of being displayed on any line of a message while text is displayed on other lines of the message.

6. Allows the operator to generate a larger moving or flashing arrow symbol, which is capable of being displayed on the entire sign face, using all three lines. Either of these message frames containing arrow symbols shall be capable of being included in a sequence.

7. Allows the operator to flash (blink) selected lines of messages and include these messages within a message sequence.

8. Is equipped with a display screen for previewing the actual sign message prior to display on the sign.

9. Is removable for ease of replacement, service, or programming.

(2) Program each controller with a password system that will deter unauthorized programming of the controller. The password system shall include at least two levels of security such that operators at one level may only change message sequences displayed using preprogrammed sequences and operators at a higher level may create and store messages or message sequences. Operators at the higher level shall also be capable of displaying message sequences.

(3) When the sign is not in operation, a back up battery shall supply power to the controller.

(4) Provide ambient light controlled continuous dimming, with a minimum range of 100% to 40% for the sign display. Provide a means for manually controlled dimming.

(5) Provide a control panel that has switches for raising and lowering the sign. Provide a night light for the control panel and controller screen and install it in the controller console cabinet.

(6) Provide a Changeable Message Sign that is fully equipped to receive commands to change standard messages and to allow monitoring of sign operations through a cellular telephone connection at the sign unit, without rewiring the cabinet connections. Provide a modem, which operates at a minimum speed of 2400 BAUD. The controller shall be capable of receiving commands via cellular telephone from a personal computer based remote station; furnished with a standard RS-232 interface such that a laptop PC may be connected with the controller to exchange data; and shall also be equipped to connect to a standard telephone land line for remote control operation.

(7) The command protocol with which the controller communicates externally shall be of a standard format and be capable of being reconfigured. The command protocol with which the controller communicates via an RS-232 interface shall be a standard format and be capable of being reconfigured.

(8) The manufacturer shall provide and install a cellular phone unit.

(9) The circuit boards used in the controller shall be constructed of components readily available from at least three other sources. Provide a schematic of the circuit boards.

(10) Provide surge protection for all electronic components.

B.4 Power Source

(1) Provide a solar Changeable Message Sign that runs on a battery system using a solar charging system. The solar-powered battery charging system shall consist of an array of

high-efficiency, single-crystal silicon cells mounted on top of the sign panel and a voltage regulator to prevent overcharging of the battery system. The system shall use deep-cycle batteries and shall include a voltage meter and ammeter.

(2) Provide solar cells that are capable of charging and maintaining the batteries at operational levels under all weather conditions experienced in Wisconsin. The solar array panel shall be capable of rotating 360 degrees atop the sign case and shall be capable of being locked in any position. The solar array panel shall either be tilted at an angle of 45 degrees relative to the horizon or shall be capable of tilting from 0 degrees to a minimum of 45 degrees and shall be capable of being locked in any position. A switch shall be provided to disconnect the solar power supply for safety during maintenance.

(3) The batteries shall be housed in a waterproof, heavy-duty housing which is equipped with necessary hardware to be locked using a padlock or built in lock. The batteries shall be of a standard size and type and be available from at least three different manufacturers. The housing that contains the batteries shall be capable of accommodating batteries from at least three different manufacturers. The batteries shall provide adequate back up power for the Changeable Message Sign to operate at full operation for 20 days having ambient air temperatures of 20 degrees Fahrenheit without any sun exposure to the solar array. Certification of the sign's ability to operate for a period of 20 days without exposure to sunlight, as stated above, shall be provided by an independent laboratory**.** Supply a switch to disconnect the battery supply for safety during maintenance.

(4) Provide a sign that is equipped to receive and use external 110-volt alternating current as an alternate source of power.

(5) Provide a sign that is equipped with a charging device that operates on 110-volt alternating current and is capable of charging the deep-cycle battery system within 24 hours. The charging device shall automatically shut off when battery system is fully charged to prevent overcharging.

(6) Equip the entire unit with an isolated ground circuit. Connect the ground wires to an isolated terminal block. The frame of the trailer shall not be a part of the ground system, except possibly for the alternating current charging and operating systems.

(7) Provide external wiring that is of single length; has no splices; and is protected from weather and obstructions that may be encountered during transport.

(8) Protect all break lines from obstructions encountered during transport.

B.5 Trailer

(1) Provide a highway trailer that has a maximum width of eight feet six inches; is constructed of heavy-gauge, rectangular structural steel tubing; and is equipped with either screw-type or hydraulic leveling jacks, trailer tongue jack with wheel, fenders,

surge brakes, trailer hitch coupling with safety chains, and a rear bumper. In addition, the trailer shall meet the following requirements:

1. Have a straight axle and 2 15-inch wheels and tires with a combined rated load capacity greater than the weight of the entire sign unit and trailer.

2. Equipped with standard highway brake lights, turn signals, and hazard lights and shall be wired into a round, six-prong connector. All wires shall be single length with no splices.

3. Enclose the battery system and the controller console in separate rustproof metal cabinets. The cabinets shall be equipped with the necessary hardware to be locked using a padlock or built in lock. Exterior metal surfaces shall be painted federal orange. The doors and lids to the cabinets shall be equipped to be locked in the open position to prevent accidental closure.

4. Have a 6000-pound capacity surge brake actuator.

5. The trailer fenders shall be a heavy-duty, walk-on type.

6. The trailer shall be provided with a walk-on deck, a minimum of 18 inches in width, along both sides of the sign case. Install the decks so that they are in front of and adjacent to both sides of the sign case when the sign case is locked in the transport mode. The walk-on decks shall be the same length as the trailer. Provide non-slip treads on these decks and on all trailer locations where service or maintenance standing or climbing will be required.

(2) Provide a trailer hitch coupling that is Class III with a minimum capacity of 5,000 pounds and provides for hookup to a two-inch ball type hitch. The coupling shall be capable of being tightened to the ball type hitch by hand turning a wheel. Provide heavy-duty safety chains with safety type hooks and attached them to the trailer for use with the coupling and hitch assembly.

(3) Equip the trailer with a means of preventing theft of the trailer.

(4) Provide the trailer with at least four leveling jacks (described above), which will level the trailer on a 6:1 slope and support 5000 pounds each. The leveling jacks shall be connected to extendable outriggers. The outriggers shall be capable of extending a minimum of 24 inches beyond the frame of the trailer. The outriggers shall be capable of being locked in at least the following three positions:

1. Flush with the frame of the trailer.
2. Extended 12 inches beyond the trailer frame.
3. Extended 24 inches beyond the trailer frame.

(5) The leveling jacks shall be capable of being stowed when not in use such that they do not protrude beneath the frame of the trailer. The trailer and sign shall be capable of withstanding wind gusts of up to 80 miles per hour when in operation with sign raised to maximum height and leveling jacks extended. The trailer shall also be equipped with a tongue jack that has a wheel. The tongue jack shall have a capacity greater than the tongue weight of the trailer.

(6) Provide a trailer that is capable of mounting or descending six inch curbs without the frame striking the curb.

(7) Provide a trailer that is legal for use on Wisconsin roads in accordance to State of Wisconsin statutes.

C Construction

(1) Install portable changeable message signs level at the locations to be determined by the engineer.

(2) On the day the signs are to become operational, have a representative familiar with the operation and repair of the signs available at the project site. The representative shall remain available until all signs are operating satisfactorily.

D Measurement

(1) The department will measure Traffic Control Signs Portable Changeable Message per each unit complete per day.

(2) Any day in which the changeable message boards are not working properly for more than 6 hours will result in one day being deducted from the quantity measured for payment, plus an additional $100 that the contractor will be liable to the department.

E Payment

(1) The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
643.1050.S	Traffic Control Signs Portable Changeable Message	Day

(2) Payment is full compensation for furnishing, maintaining and installing the complete unit; and for furnishing all labor, tools, equipment, services and incidentals necessary to complete the contract work.

(100906) 643-050

36. Pavement Marking Wet Reflective Tape 4-Inch, Item 646.0871.S.

A Description

This special provision describes furnishing and installing preformed wet reflective pavement marking tape as shown on the plans, in accordance with section 646 of the standard specifications, and as hereinafter provided.

B Materials
Furnish wet reflective pavement marking tape and adhesive material, if required, from the department's approved products list.

C Construction
C.1 Inlaying Tape into New Asphaltic Pavement
Inlay the material into the fresh asphalt mat at temperatures between 130 and 170 degrees Fahrenheit for a coarse mix and at temperatures between 120 and 150 degrees Fahrenheit for a fine mix. Place the tape as close behind the asphalt paver as soon as temperature permits and in accordance with the plan details. If necessary, supply a dedicated asphalt roller to the striping operation for proper inlay application.

D Measurement
The department will measure Pavement Marking Wet Reflective Tape (Width) in length by the linear foot of tape placed in accordance with the contract and accepted.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
646.0871.S	Pavement Marking Wet Reflective Tape 4-Inch	LF

Payment is full compensation for cleaning and preparing the pavement surface, including heating as required by the manufacturer; furnishing and installing the material; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.
(020107) 646-017

37. Construction Staking Base, Item 650.5000.

Replace the first sentence of 650.3.4 (1) of the standard specifications with the following:

Set construction stakes or marks at 25-foot intervals.

38. Electrical Service Meter Breaker Pedestal STH 11/36/83 and STH 83, Item 656.0200.01; STH 11 and STH 36/83, Item 656.0200.02.

Append 656.3.4 of the standard specifications with the following:

The department will be responsible for the electrical service installation request for any department-maintained facility. Notify the maintaining authority if the signal is not state-maintained that it is their responsibility to arrange for the electrical service installation.

Electrical utility company service installation and energy cost will be billed to and paid for by the maintaining authority.

Install the cabinet base and meter breaker pedestal first, so the electrical utility company can install the service lateral. Finish grade the service trench, replace topsoil that is lost or contaminated with other materials, fertilize, seed, and mulch all areas that are disturbed by the electrical utility company.

Append 656.5(3) of the standard specifications with the following:

Payment is full compensation for grading the service trench; replacing topsoil; and for fertilizing, seeding, and mulching to restore the disturbed area of the service trench.

39. QMP Subgrade, Item SPV.0035.01.

A General

Perform work in accordance to the pertinent requirements of section 207 of the standard specifications as modified by this contract and as hereinafter provided.

The provision of this article shall apply to subgrade cut and fill construction within the limits of assumed one-to-one slopes extending outward and downward from the outer limits of the finished subgrade shoulder lines, subgrade fill placed adjacent to and within 200 feet of a bridge abutment, and fill placed in pipe culvert trenches. Fill materials placed outside such assumed slopes of the above referenced alignments including private drives, other side roads, frontage roads and berms are not included in the Quality Management Program.

A.1 Quality Control

Provide and maintain a quality control program. The quality control program is defined as all activities relating to process control inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of subgrade which meets all the requirements of this article.

A.2 Quality Assurance

The department will provide quality assurance. Quality assurance will be accomplished in five ways: 1) by conducting assurance testing of split samples of Proctor tests obtained from the soil source study and subgrade fill by the contractor at a frequency equal to or greater than ten percent of the frequency required for quality control; 2) by periodically observing sampling and testing performed by the contractor; 3) by the engineer performing field density testing of the in-place subgrade cut and fill at the exact locations of density tests taken by the quality control person and at a frequency equal to or greater than ten percent of the frequency required for quality control; 4) by monitoring required control charts exhibiting test results of control parameters; 5) by the engineer directing the contractor to take additional samples or measurements of the subgrade compaction.

In all cases, the engineer's tests will be conducted in a separate laboratory from the contractor's tests.

B Contractor's Quality Control

B.1 Personnel Requirements

Provide a Certified Grading Technician Level I to perform the necessary sampling, testing and data analysis. The certified grading technician I shall be on site during all subgrade fill placement and compaction. Certification shall be by successful completion of course work required by the department's Highway Technician Certification Program.

B.2 Laboratory Requirements

Furnish and maintain a laboratory at the site. Furnish the laboratory with the necessary equipment and supplies for performing contractor quality control testing. The laboratory shall have a minimum area of 100 square feet. The Certified Grading Technician shall have access to a telephone and suitable answering device at the laboratory or adjacent facility. The laboratory equipment shall meet the requirements of the test methods herein identified.

Allow engineer to inspect measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment in accordance to the department's "Quality Management Program, Guide/Procedure Manual" (hereinafter Procedure Manual) and maintain a record of calibration results at the laboratory.

The Procedure Manual may be obtained from the Wisconsin Department of Transportation, Bureau of Technical Services or call 608-246-3246.

B.3 Soil Source Study

Conduct and submit a soil source study prior to the beginning of grading operations. This study shall identify each distinct soil type that will be encountered on the project within the top 15 feet of cut areas and that material which will be used as borrow material. Provide the in-bank natural moisture content for each soil. Develop moisture-density curves for each identified soil type by utilizing AASHTO Designation: T 99, "The Moisture-Density Relations of Soils Using a 5.5 lb. Hammer and a 12-in. Drop, Method A or C". Determine the maximum density and corresponding optimum moisture level for each soil type. A site-specific family of Proctor curves for this contract shall be developed from the completed soil source study and be submitted to the engineer for review and approval.

Perform characterization tests on each of the soil types selected for the soil source study. The tests shall include AASHTO Designation: T 89, "Determining the Liquid Limit of Soils"; AASHTO Designation: T 90, "Determining the Plastic Limit and Plasticity Index of Soils"; AASHTO Designation: T 27, "Sieve Analysis of Fine and Coarse Aggregates"; and AASHTO Designation T 11, "Amount of Material Finer Than 0.075 mm Sieve in Aggregate". Classify each soil type selected in accordance to the AASHTO soil classification system based on the characterization tests. Do not begin grading operations until the engineer has approved the soil source study.

Use the soil types identified in the soil source study with corresponding maximum densities and optimum moisture values to determine the compaction compliance on the

project. Continue the soil source study in those areas of deep cuts (greater than 15 feet) that were not accessible during the initial study. Include data on additional soil types if project conditions change. Test results of additional soil types shall be completed and approved by the engineer prior to placement.

Each Proctor sample shall be split by the contractor and identified so as to provide comparison with the department's test results. Retain the contractor's split samples for 14 calendar days, unless otherwise directed by the engineer. Promptly deliver the department's split samples to the department's Bureau of Technical Services laboratory, 3502 Kinsman Blvd., Madison, Wisconsin 53704, unless otherwise directed by the engineer.

B.4 Quality Control Plan

Submit an acceptable written process control plan to the engineer prior to production in accordance to the Procedure Manual. The plan shall explain how the contractor proposes to control the fill materials moisture and compaction to ensure compliance.

B.5 Field Density/Moisture Control Testing

The contractor's Certified Grading Technician shall be on the project site during all contractor grading operations covered by this specification. Monitor and test all subgrade fill placement and compaction. During subgrade construction, use sampling and testing methods identified in the Procedure Manual to perform the following tests at randomly selected locations at the indicated minimum frequency:

Test	**Minimum Frequency***
Field Density Test (AASHTO T-238)	1 test per 3000 cubic yards placed per grading area.
Field Moisture Content (AASHTO T-239)	1 test per 3000 cubic yards placed per grading area.
One Point Proctor Test (AASHTO T-272)	1 test per 9000 cubic yards placed per grading area.

* A grading area is defined as any individual segment of the project in which fill is being placed.

Perform a minimum of one random field density and field moisture test at each pipe culvert location. For pipe culverts larger than 43 inches diameter, perform a minimum of two random field density and field moisture tests, with each test on different lifts of fill.

Perform a minimum of two random field density and two random field moisture tests at each bridge substructure unit, such as abutments and bridge piers. Compact bridge backfill to a minimum of 95% of the maximum dry density as determined by AASHTO Designation: T 99 or T 272.

Field density and field moisture testing is required for compaction of the top six inches of the subgrade in cut areas at a minimum frequency of one test per every twenty stations.

If the special provision for Mixing and Compacting of Subgrade Cuts is included in this contract, the field density and field moisture testing is required in the top 24 inches of the subgrade in cut areas at the same frequency as listed above for subgrade fill.

Perform the field density and field moisture tests using the nuclear density meter method (AASHTO Designation: T 238, "Density of Soil and Soil-Aggregate in Place by Nuclear Methods", and AASHTO Designation: T 239, "Moisture Content of Soil and Soil-Aggregate in Place by Nuclear Methods".) Each field density test material shall be related to one of the specific soil types identified in the soil source study in determining the percent compaction. Textural identification shall be the primary method of establishing this relationship. A coarse particle correction in accordance to AASHTO designation: T 224, "Correction of Coarse Particles in Soil Compaction Test", shall be used with Method A and may be used with Method C.

Obtain and test a representative sample of the fill material at a minimum of each 9000 cubic yards in accordance to AASHTO Designation: T 272, "Family of Curves - One Point Method", Method A or C. Obtain the sample from a randomly selected field density test location. Compare the test results to the curves developed in the soils source study to determine the maximum dry density and optimum moisture applicable to that field density test. Use the appendix for AASHTO Designation: T 272 as a guide in this determination.

Meet requirements of the Radiation Protection Code, the Rules of the Wisconsin Administrative Code HSS 157 and the Nuclear Regulatory Commission (NRC).

Have available copies of names of testing personnel and current NRC license/certifications and Wisconsin Department of Industry, Labor and Human Relations (DILHR) registration.

Have available evidence of a current leak test certificate for all nuclear meters used on WisDOT projects.

Provide evidence that the manufacturer a minimum of once per year has calibrated the nuclear testing equipment.

Abide by the manufacturer's requirement that the nuclear device take a standard count for density and moisture prior to each days operation on the manufacturer's standardized block. In addition, test for calibration both the contractor's and the engineer's nuclear devices on a daily basis with a standard calibration block provided by the department.

Determine the cubic yardage for interim pay and test frequency on a total load count system agreed to by the engineer and contractor. Each test data point shall identify the

horizontal (±2.0 feet) and vertical (±0.5 feet) location of the test and the cubic yardage represented.

B.6 Documentation (Records)
Document all observations, records and inspection, adjustments to fill placement procedures, soil changes, and test results on a daily basis. Note the results of the observations and records of inspection as they occur in a permanent field record. Provide copies of the field density and field moisture running average calculation sheets, the one point Proctor tests, records of procedure adjustments, and soil changes to the engineer on a daily basis. Provide the original testing records and control charts to the engineer in a neat and orderly manner within ten days after the completion of the subgrade cut and fill construction.

B.7 Documentation (Control Charts)
Maintain standardized control charts for each grading area by the contractor for field density and moisture. Post the charts at the location agreed upon by the contractor and the engineer. Record test results obtained by the contractor on the control charts within two hours from the time of the field sampling. Record the density data on the standardized control charts for all randomly selected subgrade cut and fill locations tested. The two-hour time period is waived if the project family of curves does not represent the material tested.

Both the individual test point and the moving average of four data points shall be plotted on each chart. Show the contractor's test data in black and the moving average in red. Plot in green additional tests or retests that have been randomly selected. Other means of chart plotting may be used when approved by the engineer. Legends used on the control charts shall be consistent throughout the project.

B.8 Compaction Zones
The quality control criteria listed below will be based on the subgrade fill height. Classify embankment fills of six feet or less in height as upper zone material and compacted to the quality controls designated. Subgrade fills over six feet in height shall have the top six feet compacted to the upper zone quality controls designated, and those portions more than six feet below the finished subgrade shall be compacted to lower zone quality control criteria designated, except such portions occurring adjacent to and within 200 feet of a bridge abutment shall be compacted to the upper zone quality controls. Compact pipe culvert trenches in accordance to the zone the trench are located in.

Compact the mixing and compacting portion of the subgrade in cut sections to the quality control criteria for upper zone embankments.

B.9 Control Limits
The control limit for field density measurements of subgrade fill material placed in the upper zone shall be a minimum of 93% of the maximum dry density as determined by AASHTO Designation: T 99 or T 272 for the four test moving average and a minimum of 90% of the maximum dry density for any individual test.

The control limit for field density measurements of subgrade fill material placed in the lower zone shall be a minimum of 90% of the maximum dry density as determined by AASHTO Designation: T 99 or T 272, for the four test moving average and a minimum of 88% of the maximum dry density for any individual test.

The upper control limit for the field moisture content of subgrade fill material placed in either the upper or lower zone shall be 110% of the optimum moisture as determined by AASHTO Designation: T 99 or T 272 for the four test moving average. The lower control limit for the field moisture content of subgrade fill material placed in either the upper or lower zone shall be 65% of the determined optimum moisture for the four test moving average. The lower control limit for the field moisture of material having less than 5% passing the number 200 sieve shall be 40% of the determined optimum moisture for the four test moving average, with no lower limit for material having less than 3% passing the number 200 sieve.

B.10 Warning Limits

The warning limit for field density measurements of subgrade fill material placed in the upper zone shall be a minimum of 95% of the maximum dry density as determined by AASHTO Designation: T 99 or T 272, for the four test moving average. There shall be no upper limit.

The warning limit for field density measurements of subgrade fill material placed in the lower zones shall be a minimum of 92% of the maximum dry density as determined by AASHTO Designation: T 99 or T 272, for the four rest moving average.

There is no upper or lower warning limit for field moisture.

B.11 Warning Band

The warning band is defined as the area between the control limit and the warning limit.

B.12 Corrective Action

When the moving average values trend is towards the warning limit, consider corrective action. Document the corrective action. All randomly selected tests shall be part of the project files and included in the moving average calculations.

Notify the engineer when a moving average field density point falls within the warning band. If two consecutive moving average points of the field density falls within the warning band, take corrective action(s) on the subsequent fill placed. The contractor and the engineer shall discuss a corrective action(s) to bring the density for the subsequent fill above the warning limits. Corrective action performed by the contractor.

If the corrective action improves the field density such that the new moving average, after four additional individual tests, is above the warning limit, the contractor may continue subgrade cut or fill material placement.

If the new moving average point for the field density is still within the warning bands after the corrective action, the subgrade fill material in this area shall be considered unacceptable. If the embankment material is considered unacceptable, perform additional corrective actions to improve the field density until the new moving average, after four additional re-tests, falls within the warning limits.

If the field density or field moisture moving average point falls below the control limit for field density or exceeds the control limits for field moisture, the subgrade fill material in this area shall be considered unacceptable. Perform corrective actions to bring the subgrade fill material, after four additional re-tests, within warning limits for field density and inside the control limits for field moisture.

If an individual field density test falls below the control limit, the subgrade fill in this area shall be considered unacceptable. Perform corrective action(s) to bring the subgrade fill material, after a retest, within the individual test control limits.

If the contractor's control data is proven incorrect resulting in a field density or field moisture moving average point falling below the control limit for field density or exceeding the control limits for field moisture, the subgrade fill material shall be considered unacceptable. Employ the methods described above for unacceptable material.

C Department's Quality Assurance

C.1 Required Testing and Personnel Requirements

The engineer will conduct assurance tests on split samples taken by the contractor. These samples may be from the Soil Source Study or the one point Proctor(s) or sample locations chosen by the engineer from anywhere in the process. The frequency of testing for the split samples will be equal to or greater than ten percent of the tests taken by the contractor with a minimum of one sample to include each test listed in the Soil Source Study, subsection B(3). The assurance test results will be provided to the contractor within seven working days after the sample has been received by the department's Bureau of Technical Services laboratory, 3502 Kinsman Blvd., Madison, Wisconsin 53704, unless directed elsewhere by the engineer.

The frequency of testing for the field density/moisture tests will be equal to or greater than ten percent of the tests required for the contractor quality control. The results of nuclear tests will be provided to the contractor on the day of testing.

The quality assurance certified technician will test the first split sample obtained by the contractor for the one point Proctor. The engineer may select any or the entire contractor retained samples for assurance testing. All field testing and data analysis shall be performed by a Certified Grading Technician I. Certification shall be in accordance to the department's Highway Technician Certification Program. The department will provide to the contractor a chart giving the names and telephone numbers for the personnel responsible for the assurance program.

The engineer will periodically witness the field testing being performed by the contractor. If the engineer observes that the quality control field tests are not being performed in accordance to the applicable test procedures, the engineer may stop production until corrective action is taken. The engineer will notify the contractor of observed deficiencies, promptly, both verbally and in writing. The engineer will document all witnessed testing.

C.2 Testing Precision

Differences between the contractor's and the engineer's field density/moisture test results (AASHTO Designation: T 238 and 239) will be considered acceptable if the wet density is within five pounds per cubic foot and the moisture is within one pound per cubic foot of each other. The department's assurance field density/moisture Test shall be conducted at the exact location as the contractor's quality control test. Differences between the contractor's and the engineer's Proctor test (AASHTO Designation: T 99) and one-point Proctor test AASHTO Designation: T 272) results will be considered acceptable if the quality assurance test result is within 0.85 to 1.15 of the contractor's optimum moisture content and 4.5 lbs. per cubic foot of maximum dry density.

In the event comparison test results are outside the above allowable differences, the engineer will investigate the reason immediately. The engineer's investigation may include testing of other locations, review of observations of contractors testing procedures and equipment, and a comparison of test results obtained by the contractor, with those obtained by the department.

C.3 Referee Testing

If a difference in test results and/or procedures for sampling and testing exists between the contractor and the engineer that they cannot resolve, the department's laboratory or other mutually agreed upon independent testing laboratory will be asked to provide referee testing. The engineer and the contractor will abide by the results of the referee testing. The party found in error will pay service charges incurred for referee testing by an independent laboratory.

D Acceptance

The engineer will base final acceptance of this item on the results of the contractor's random testing as verified by the engineer in Section C hereinbefore described.

E Measurement

The department will measure Quality Management Program, Subgrade, by the cubic yard for the class of excavation involved (Common Excavation and Borrow Excavation), completed and accepted. The final cubic yardage shall be determined based on actual quantities measured in accordance to subsections 205.5.1 and 208 of the standard specification.

F Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.02	Quality Management Program, Subgrade	CY

Payment is full compensation for all work herein specified and for furnishing all labor, tools, equipment, laboratories, sampling, testing, record keeping and incidentals necessary to complete the work.

40. Concrete Base, Type 9, Monotube, Item SPV.0060.01.

Perform work in accordance to the requirements of section 654 of the standard specifications and as detailed on the plans.

41. Apron Endwalls for Underdrain Reinforced Concrete 12-Inch, Item SPV.0060.02.

A Description

This special provision describes furnishing and installing reinforced concrete apron endwalls according to subsection 612.3.8 of the standard specifications.

B Materials

Provide materials for endwalls according to section 504 of the standard specifications and plan details.

C Construction

Install endwalls according to plan details at locations the plans show.

D Measurement

The department will measure Apron Endwalls for Underdrain Reinforced Concrete 12-Inch by the individual unit acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item and in accordance to subsection 612.5 of the standard specifications:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Apron Endwalls for Underdrain Reinforced Concrete 12-Inch	Each

Payment is full compensation for furnishing and installing all materials; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

42. Cover Signs, Type I, Item SPV.0060.03.

A Description

This special provision describes covering sign messages, maintaining the sign covering, and removing the sign covering, as shown on the plan and as hereinafter provided. The covered sign message shall be unreadable during daytime and nighttime hours.

B Materials
Provide covering material of sufficient durability to withstand the effects of weather. Provide porous cloth or sheet aluminum covering. If porous cloth covers are provided, only provide those that do not allow light to reflect from the sign face at night.

Tape, paper, plastic, or sheet metal covers will not be allowed.

C Construction
If porous cloth covering is provided, fold porous cloth covers over the sign edges and secure to the back of the sign. When only a portion of the sign is to be covered, cover only the area of the sign designated to be covered with the cloth cover held tightly in place using a rope system or other system as approved by the engineer. Secure the cloth so that it will not flap against the sign face.

If sheet aluminum covers are provided, rivet the covering to the sign face. Provide rivets that are a maximum of 3/16-inch in diameter. When only a portion of the sign is to be covered, provide aluminum cover sheeting that has on its face the same color as the surrounding sign.

D Measurement
The department will measure Cover Signs, Type I in units for each sign covered. Multiple covers on the same sign will be paid for separately. Multiple coverings and removals of sign coverings on the same sign will be paid for separately.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Cover Signs, Type I	Each

Payment is full compensation for furnishing, installing, maintaining, and removing sign covers; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

43. Erosion Control Filter Bags, Item SPV.0060.04.

A Description
This special provision describes constructing dikes or barriers with filter bags as shown on the plans.

B Materials
Provide bags made of canvas or other synthetic material approved by the engineer. Use bags that will contain a minimum of one half cubic foot of stone, be of one size and shape and be securely closed.

Use stone that conforms to the requirements of subsection 310.2 of the standard specifications.

C Construction
Remove and dispose of the filter bags and all surplus material upon completion of their use under this contract.

D Measurement
The department will measure Erosion Control Filter Bags as each individual filter bag placed and accepted.

E Payment
The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.04	Erosion Control Filter Bags	Each

Payment is full compensation for furnishing and installing filter bags; for all excavation; for removal and disposal of the filter bags and all waste or surplus materials, including eroded materials; and for shaping and restoring the area.

Any required topsoiling, fertilizing, seeding or mulching will be paid for under the applicable item.

44. Sand Bags, Item SPV.0060.05.

A Description
This special provision describes constructing dikes or barriers with sand-filled bags as shown on the plans.

B Materials
Provide bags made of canvas, burlap, nylon or other approved material. Use bags that will contain a minimum of one half cubic foot of sand, be of one size and shape, and be securely closed.

Use sand that conforms to the requirements of subsection 501.2.5.3 of the standard specifications except that subsection 501.2.5.3.4 shall be deleted. The maximum size of particle shall pass a No. 4 sieve.

C Construction
Remove and properly dispose of the sand bags and all surplus material upon completion of its use under this contract.

D Measurement
The department will measure Sand Bags as each individual sand bag placed and accepted.

E Payment

The department will pay for the measured quantity at the contract unit price under the following bid item.

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Sand Bags	Each

Payment is full compensation for furnishing and installing sand filled bags; for all excavation; for removal and disposal of the sand bags and all waste or surplus materials, including eroded materials; and for shaping and restoring the area.

Any required topsoiling, fertilizing, seeding or mulching will be paid for under the applicable item.

45. Traffic Signals and Street Lighting, STH 11/36/83 and STH 83, Item SPV.0105.01; STH 11 and STH 36/83, Item SPV.0105.02.

A Description

This special provision describes transporting and installing department-furnished materials for traffic signals and intersection lighting, at the intersection of STH 11/State Street and STH 36/83, and STH 11/36/83 and STH 83 Pine Street.

B Materials

Use materials furnished by the department including the traffic signal controller, the traffic signal cabinet, and traffic signal control equipment and intersection lighting equipment as listed in the plans such as pedestal bases, transformer bases, traffic signal standards, poles, trombone arms or monotubes, traffic signal faces, backplates, pedestrian push buttons, luminaire arms, utility luminaires, and traffic signal mounting hardware.

Pick up the department-furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials three working days prior to picking up the materials.

Provide all other needed materials in conformance to subsections 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2 of the standard specifications.

C Construction

Perform work in accordance to subsections 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 of the standard specifications except as specified below.

Request a signal inspection of the completed signal installation to the project engineer at least three working days prior to the time of the requested inspection. The departments' regional electrical personnel will perform the inspection.

D Measurement
The department will measure Traffic Signals and Street Lighting (Location) as a single lump sum unit of work in place and accepted.

E Payment
The department will pay for the measured quantity at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Traffic Signals and Street Lighting, STH 11/36/83 and STH 83	LS
SPV.0105.02	Traffic Signals and Street Lighting, STH 11 and STH 36/83	LS

Payment is full compensation for transporting and installing the traffic signal controller, the traffic signal cabinet, the traffic signal control and intersection lighting equipment as listed in the plans; for furnishing and installing all other items necessary such as wire nuts, splice kits and/or connectors, tape, insulating varnish, ground lug fasteners, and sodium lamps for lighting to make the proposed system complete from the source of supply to the most remote unit; and for clean-up and waste disposal.

46. Temporary Diversion Channel, Item SPV.0105.03.

A Description
This special provision describes constructing a temporary diversion channel for Poplar Creek during the proposed extension of Structure B-51-22. Submit to the engineer a detailed plan with written steps indicating where and how the diversion channel will be constructed. Perform the work in accordance to the plan details, the pertinent provisions of the standard specifications, and as hereinafter provided.

B Materials
The stone lining on the bottom of the channel shall consist of hard, durable particles that are washed and uniformly graded. The stone shall pass a 6-inch screen and be retained on a 1-inch sieve.

Furnish polyethylene sheeting as indicated on the plan for lining the channel.

C Construction
Submit the diversion plan as part of the erosion control implementation plan to the engineer for approval by the region no later than 14 days prior to the preconstruction conference. Include in the diversion plan a written narrative explaining the planned diversion method and erosion control devices to be installed, and any drawings required to clarify the proposed method. Do not begin installation of the temporary culvert pipe until the region approves the diversion plans and the engineer gives the notice to proceed.

Excavate the diversion channel to the cross section shown on the plan. The minimum depth of the channel shall be 36-inches. Undercut all unsuitable soil encountered below the flow line of the channel as directed by the engineer. Any undercuts will be paid for as EBS. Line the channel with polyethylene sheeting; stake the sheeting as necessary with

stakes 12 inches or more in length. Place stone in the bottom of the channel as shown in the plan.

If dewatering is required, pump the water into an upland settling basin before allowing it to enter the stream.

No in-stream construction will be allowed between the dates of April 1 and June 1.

Upon completion of Structures C-51-22, remove all diversion devices from the waterway. Remove and dispose of the geotextile fabric above the stone bottom. Backfill the diversion channel with suitable material. Use material and construction methods that conform to the appropriate specifications in sections 205 and 208 of the standard specifications.

D Measurement

The department will measure Temporary Diversion Channel, completed in accordance to the contract and accepted, as a single complete unit of work.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Temporary Diversion Channel	LS

Payment is full compensation for placing and excavating the diversion channel; for dewatering required to implement the diversion plan; for furnishing, installing, and staking the polyethylene sheeting; for supplying, removing and disposing of the plastic sheeting; for providing and placing the stone in the channel; for removing the diversion channel and the polyethylene sheeting; for backfilling the temporary channel; and for furnishing all labor, tools, equipment and incidentals necessary to complete the contract work.

The department will pay separately for polyethylene sheeting, Sand Bags, the temporary culvert pipe installation, salvaged topsoil, fertilizer, seed and mulch.

47. Architectural Surface Treatment, Item SPV.0165.01.

A Description

This special provision describes constructing a concrete masonry architectural surface treatment on the exposed concrete surfaces of the structure, as detailed in the plans, and as hereinafter provided.

B Materials

Use reusable form liners that are made of highway strength urethane that attach easily to the forming system, and do not compress more than 1/4-inch when poured at a rate of 10 vertical feet/hour.

Use a release agent that is compatible with the form liner and coloring materials.

Wall ties shall have set "break-backs" at a minimum of ¾-inches from the finished concrete surface.

C Construction

C.1 Equipment

Equipment and tools necessary for performing all parts of the work shall be satisfactory as to design, capacity and mechanical condition for the purposes intended. Repair, improve, replace or supplement all equipment that is not maintained in full working order, or which is proven inadequate to obtain the results prescribed.

C.2 Form Liner Preparation

Clean the form liner prior to each pour and ensure that it is free of any build-up. Visually inspect each liner for blemishes or tears, and repair if necessary per manufacturer's recommendations.

Apply form release per manufacturer's recommendations.

C.3 Form Liner Attachment

Place adjacent liners less than ¼-inch from each other, attach liner securely to forms in accordance to manufacturer's recommendations, and coordinate wall ties with form liner and form manufacturer, e.g., diameter, size, and frequency.

C.4 Surface Finishing

Ensure that the textured surface is free of laitance; sandblasting is not permitted.

Grind or fill pouring blemishes.

D Measurement

The department will measure Architectural Surface Treatment by the square foot acceptably completed.

E Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Architectural Surface Treatment	SF

Payment is full compensation for producing the proposed architectural surface treatment including preparing the foundation; finishing and protecting the surface treatment; properly disposing of surplus material; and for furnishing all labor, tools, equipment, materials, and incidentals necessary to complete the contract work.

48. Concrete Staining, Item SPV.0165.02.

A Description

This special provision describes furnishing and applying a two-coat concrete stain to the exposed concrete surfaces of the structure as detailed in the plans, and as hereinafter provided.

B Materials

B.1 Mortar

Use mortar for sack rubbing the concrete surfaces as given in subsection 502.3.7.5 or use one of the following products or approved equal:

Preblended, Packaged Type II Cement:	Tri-Mix by TK Products
	Thoroseal Pearl Gray by Thoro Products

The mortar shall contain one of the following Acrylic Bonding Admixtures mixed and applied as given by the manufacturer or approved equal.

Acrylic Bonding Admixture:	TK-225 by TK Products
	Achro 60 by Thoro Products
	Achro Set by Master Builders

B.2 Concrete Stain

Use concrete stain manufactured for use on exterior concrete surfaces, consisting of a base coat and a pigmented sealer finish coat. Use the following products, or equal as approved by the department, as part of the two-coat finish system:

Tri-Sheen Concrete Surfacer, Smooth by TK Products
Tri-Sheen Acrylic by TK Products
*TK-1450 Urethane Anti-Graffiti Primer by TK Products
Safe-Cure and Seal EPX by Chem Masters
H + C Shield Plus by Sherwin-Williams
(*Natural Look)

C Construction

Furnish, prepare, apply, cure, and store all materials according to the product manufacturer's directions specified for the type and condition of application required.

Prior to staining, allow the concrete to cure for the stain manufacturer's minimum recommended curing time or 28 days, whichever is greater.

C.1 Preparation of Concrete Surfaces

Provide a sack-rubbed finish as given in subsection 502.3.7.5, using mortar as indicated above, on concrete surfaces with open voids or honeycombing.

Following the sack rubbing, clean all concrete surfaces that are to be coated to ensure that the surface is free of all laitance, dirt, dust, grease, efflorescence, and any foreign material, so that the concrete surface will accept the coating material according to product requirements. As a minimum, clean using a 3000 psi water blast. Hold the nozzle of the water blaster approximately 6-inches from the concrete surface and move it continuously in a sweeping motion. Give special attention to smooth concrete surfaces to ensure that an acceptable surface texture is produced. Correct any surface problems resulting from the surface preparation methods. The department will not allow grit blasting of the concrete surface.

C.2 Staining Concrete Surfaces
Apply the concrete stain in accordance to the manufacturer's recommendations.

Apply the concrete stain when the temperature of the concrete surface is 45° F or higher, or as given by the manufacturer.

Use the stain color that is given on the plan. Tint the base coat to match the finish coat; ensure that the two coats are compatible with each other.

Do not begin staining the structure until earthwork operations are completed to a point where this work can begin without receiving damage. Where this work is adjacent to exposed soil or pavement areas, provide temporary covering protection from overspray or splatter.

C.3 Test Areas
Prior to applying stain to the structure, perform test applications on sample panels that measure a minimum of 48-inches x 48-inches and are constructed to demonstrate workmanship in the use of the form liner specified on the structure, if applicable. Prior to staining, allow the concrete to cure for the stain manufacturer's minimum recommended curing time or 28 days, whichever is greater. Prepare the concrete surfaces of the sample panels and apply stain using the same materials and same manner as proposed for the structure, including staining of the joints between stones produced by the form liner, if applicable. Do not apply stain to the structure until the department approves the test panels.

C.4 Surfaces to be Coated
Apply concrete stain to the surfaces as given on the plan.

D Measurement
The department will measure Concrete Staining by the square foot acceptably completed.

E Payment
The department will pay for measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.02	Concrete Staining	SF

Payment is full compensation for furnishing and applying the two-coat system; preparing the concrete surface; preparing sample panels; and for furnishing all labor, tools, equipment and incidentals necessary to complete the contract work.

49. Covering Signs Type II, Item SPV.0165.03.

A Description

This special provision describes covering sign messages, maintaining the sign covering, and removing the sign covering, as shown on the plan and as hereinafter provided. The covered sign message shall be unreadable during daytime and nighttime hours.

B Materials

Provide covering material of sufficient durability to withstand the effects of weather. Provide porous cloth or sheet aluminum covering. If porous cloth covers are provided, only provide those that do not allow light to reflect from the sign face at night.

Tape, paper, plastic, or sheet metal covers will not be allowed.

C Construction

If porous cloth covering is provided, fold porous cloth covers over the sign edges and secure to the back of the sign. When only a portion of the sign is to be covered, cover only the area of the sign designated to be covered with the cloth cover held tightly in place using a rope system or other system as approved by the engineer. Secure the cloth so that it will not flap against the sign face.

If sheet aluminum covers are provided, rivet the covering to the sign face. Provide rivets that are a maximum of 3/16-inch in diameter. When only a portion of the sign is to be covered, provide aluminum cover sheeting that has on its face the same color as the surrounding sign.

D Measurement

The department will measure Covering Signs Type II in area by the square foot of sign face acceptably covered.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.03	Covering Signs Type II	SF

Payment is full compensation for furnishing, installing, maintaining, and removing sign covers; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

50. Test Rolling, Item SPV.0170.01.

A Description

This special provision describes the testing of the stability of the finished earth subgrade by rolling with a tri-axle dump truck, the restoration of any soft or yielding areas evidenced by the test rolling, and retesting as determined by the engineer.

B Equipment

Fully load a tri-axle dump truck to within 3 tons of the vehicle legal load limit and provide a minimum gross vehicle weight of 30 tons. Uniformly inflate all tires to the pressure recommended by the manufacturer for the applicable wheel load.

C Construction

Completely compact and shape the subgrade to approximate grade and cross section; but not yet staked for blue top grades for areas to be tested. Test roll at normal walking speed under the direction of the engineer or his representative.

Roll the earth subgrade at a width equal to the finished base course width. Make multiple passes throughout the length of the subgrade test area. Center each pass on a proposed lane or applicable shoulder. When the shoulder width is less than 8 feet, the engineer will determine the number and location of passes required such that any wheel track will be within 3 to 4 feet of the previous adjacent wheel track.

Repair and consolidate any soft or yielding areas or depressions evidenced under the action of the test rolling to withstand retesting. Excavate and replace any unstable material from the roadbed with selected materials. Correct any yielding subgrade areas discovered during the test rolling operations prior to blue top staking and finish grading operations. Perform corrective work in accordance to the standard specifications.

D Measurement

The department will measure Test Rolling by the station along the roadway centerline or reference line. The department will measure two or more separate roadways by the station along each separate roadway as designated on the plans.

E Payment

The department will pay for the measured quantity at the contract unit price under the following item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0170.01	Test Rolling	STA

Payment is full compensation for performing the Test Rolling; for any preparation of the subgrade, including the furnishing and incorporation of water, if required; for retesting as determined by the engineer and for restoration of the subgrade.

51. Geotextile Fabric Type FF, Item SPV.0180.01.

A Description
This special provision describes furnishing, installing and removing geotextile fabric and fabric hold down systems for filtering storm water as shown in the plans.

B Materials
Use type FF geotextile fabrics conforming to 645.2.1 except use a woven polypropylene fabric. Furnish type FF geotextile fabrics selected from the department's erosion control product acceptability list (PAL). Obtain copies of the erosion control PAL and prequalification procedure from the Bureau of Technical Services.

C Construction
Meet the pertinent requirements as set forth in section 645.3 of the standard specifications and as follows:

Install in accordance to the plan details for the intended use in such a manner to preclude ripping and tearing of the fabric, or otherwise rendering the fabric or assembly ineffective for its intended use.

D Measurement
The department will measure Geotextile Fabric, Type FF by the square yard of surface area of the fabric placed and accepted in accordance to the contract.

E Payment
The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Geotextile Fabric, Type FF	SY

Payment is full compensation for furnishing, transporting, installing and removing the fabric and fabric hold down systems.

52. Washed Stone, Item SPV.0195.01.

A Description
This special provision describes furnishing and placing washed stone as shown on the plans and as hereinafter provided.

B Materials
Washed stone shall be size no. 2 meeting the requirements of subsection 501.3.6.4.5 of the standard specifications.

C (Vacant)

D Measurement

The department will measure Washed Stone by the ton of required material incorporated in the work. Furnish and deliver to the engineer a ticket, with each load, showing the net weight of the load, the type of material, the date and the project where used.

E Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Washed Stone	TON

Payment is full compensation for furnishing, producing, crushing, screening, loading, hauling, placing, and maintaining the washed stone; for stockpiling, if required; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

ADDITIONAL SPECIAL PROVISION 2

Apprenticeship Training.

A. The contractor and its subcontractors agree, in the performance of this Contract, to employ apprentices in accordance with the requirements as described in Part B below, as established by the Department of Workforce Development in accordance with State of Wisconsin Executive Order No. 108, dated June 29, 2005.

B. The contractor and subcontractors employing five (5) or more craft workers of trades with apprentice programs in the state of Wisconsin shall meet one of the following requirements:

1. Employ or have employed at any time during the current or previous calendar year the maximum number of apprentices allowed by the training ratio for each trade included in the bid; or

2. Employ or have employed at any time during the current or previous calendar year a skilled workforce of at least five (5) percent apprentices for projects performed under contract to DOT; or

3. Employ apprentices on a contract jobsite at the maximum ratio or, where the ratio is not jobsite specific, at five (5) percent of the contract hours for work performed under contract to DOT; or

4. Agree that "new hire apprentices" will be engaged at least at the maximum ratio of journey level workers to apprentices allowed under the standards established by the Department of Workforce Development.

C. In the event of failure to meet these ratios, the contractor shall be given an opportunity to demonstrate that every good faith effort to meet this commitment has been made.

D. No contract shall be executed or subcontract approved unless the contractor or subcontractors are currently approved as a Wisconsin Trade Trainer or has applied for approval as an Apprenticeship Trade Trainer to the Department of Workforce Development and agrees to an acceptable apprenticeship program which includes specific ratios of apprentices in skill trades which have been determined as apprentice able by the Department of Workforce Development.

E. The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements.

F. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Department of Workforce Development. A request for an exemption or modification, with justification, shall be made in writing, addressed to Department of Workforce Development, Bureau of Apprenticeship Standards, PO Box 7972, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 4

Payment to all Subcontractors. Within 10 calendar days of receipt by a contractor of a progress payment for work performed, materials furnished, or materials stockpiled by a subcontractor, the contractor shall pay that subcontractor for all work satisfactorily performed and for all materials furnished or stockpiled.

The contractor agrees further to release retainage amounts to each subcontractor within 10 calendar days after the subcontractor's work is satisfactorily completed. In addition, whenever the Department reduces the contract retainage amount, within 10 calendar days of receipt by a contractor of a retainage payment, the contractor must reduce the total amount retained from subcontractors to no more than remains retained by the Department.

The contractor shall pay the subcontractor within the time frames described above unless the contractor complies with both of the following within 10 calendar days of receiving the Department's progress payment:

1) The contractor notifies the subcontractor in writing that the work is not satisfactorily completed.
2) The contractor requests approval from the Department to delay payment because the subcontractor has not satisfactorily completed the work.

The contractor's request for approval should include the written notification to the subcontractor and shall provide sufficient documentation of good cause to assist the engineer in making a timely decision. If the engineer does not grant approval, the contractor shall pay the subcontractor within 10 calendar days of the Department's decision.

All subcontracting agreements made by a contractor shall include the above provisions and shall be binding on all contractors and subcontractors.

The contractor certifies compliance with the requirements of this Additional Special Provision by signing the contract. This clause applies to both DBE and non-DBE subcontractors.

ADDITIONAL SPECIAL PROVISIONS 5

Fuel Cost Adjustment.

A. Description. Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the Contractor or a credit to the Department. ASP-5 shall not apply to any force account work.

B. Categories of Work Items. The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	C.Y.	0.23
205.0200	Excavation Rock	C.Y.	0.39
205.0400	Excavation Marsh	C.Y.	0.29
208.0100	Borrow	C.Y.	0.23
208.1100	Select Borrow	C.Y.	0.23
209.0100	Backfill Granular	C.Y.	0.23
350.0102	Subbase	C.Y.	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	S.Y.	0.05
350.0120	Subbase 7-Inch	S.Y.	0.05
350.0125	Subbase 8-Inch	S.Y.	0.06
350.0130	Subbase 9-Inch	S.Y.	0.07
350.0135	Subbase 10-Inch	S.Y.	0.08
350.0140	Subbase 11-Inch	S.Y.	0.09
350.0145	Subbase 12-Inch	S.Y.	0.09

C. Fuel Index. A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is $1.8000 per gallon.

D. Computing the Fuel Cost Adjustment. The Engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the Department will be computed. If the ratio is greater than 1.15 additional payment to the Contractor will be computed. Credit or additional payment will be computed as follows:

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \left(\frac{CFI}{BFI} - 1\right) \times Q \times BFI$$

(plus is payment to Contractor; minus is credit to Department)

Where FA = Fuel Cost Adjustment (plus or minus)
CFI = Current Fuel Index
BFI = Base Fuel Index
Q = Monthly total gallons of fuel

E. Basis of Payment. A Fuel Cost Adjustment credit to the Department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the Contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

ADDITIONAL SPECIAL PROVISION 6
MODIFICATIONS TO THE STANDARD SPECIFICATIONS

Make the following revisions to the 2003 edition of the standard specifications as modified by the 2006 supplement:

501.3.7.1 Slump

Replace paragraph two with the following effective with the November 2006 letting:

(2) For Grade E concrete, do not exceed a slump of 2 inches (50 mm).

657.2.1 Poles

Replace paragraph one with the following effective with the July 2006 letting:

(1) Design support structures, consisting of poles and arms, conforming to AASHTO design and fabrication standards for structural supports for highway signs, luminaires, and traffic signals. Use a design life of 50 years. Design to withstand a 3 second gust wind speed of 90 mph (145 km/h). Do not use the methods of appendix C of those AASHTO standards.

678.2 Materials

Replace the entire text with the following effective with the April 2007 letting:

678.2.1 Department Furnished Materials

(1) The department will furnish fiber optic cable and termination panels.

678.2.2 Fiber Optic Splices

(1) Furnish fiber optic splice enclosures to be used in fiber optic splices for both mainline end-to-end splices and drop splices, as the plans show.

(2) Furnish fiber optic splice enclosures designed for use under the most severe conditions such as moisture, vibration, impact, cable stress and flex temperature extremes as demonstrated by successfully passing the factory test procedures.

678.2.2.1 Physical Requirements

(1) The enclosure must handle up to 4 cables in a butt configuration. The contractor may use a butt adapter to increase capacity to 6 cables.

(2) The enclosure must prevent the intrusion of water without the use of encapsulates.

(3) The enclosure must be capable of accommodating splice organizer trays that accept mechanical, fusion, or multi-fiber array splices. The splice enclosure shall have provisions for storing fiber splices in an orderly manner, mountings for splice organizer assemblies, and space for excess or unspliced fiber. Splice organizers shall be re-enterable. Splice cases shall hold a sufficient number of splice trays to hold up to 144 splices.

(4) The splice case shall be UL rated.

(5) Enclosure re-entry and subsequent reassemble shall not require specialized tools or equipment. Further, these operations shall not require the use of additional parts.

(6) The splice enclosure shall have provisions for controlling the fiber bend radius to a minimum of 1 1/2 inches (38 mm).

678.2.2.2 Factory Testing

678.2.2.2.1 General

(1) Ensure that the manufacturer or an independent testing laboratory performs the tests listed below in 678.2.1.2.2 through 678.2.1.2.6. Submit certificates of compliance to the department. Manufacturer certification is necessary for the model of enclosure supplied. It is not necessary to test each supplied enclosure.

678.2.2.2.2 Compression Test

(1) The enclosure shall not deform more than 10 percent in its largest cross-sectional dimension when subjected to a uniformly distributed load of 300 pound-force (1335 N) at a temperature of -1 F (-18 C) and 100 F (38 C). Perform the test after stabilizing at the required temperature for a minimum of 2 hours. It shall consist of placing an assembled enclosure between 2 flat paralleled surfaces, with the longest enclosure dimension parallel to the surfaces. Place the weight on the upper surface for a minimum of 15 minutes. Take the measurement with weight in place.

678.2.2.2.3 Impact Test

(1) The assembled enclosure shall be capable of withstanding an impact of 20.65 foot-pounds (28 Nm) at temperatures of -1 F (-18) and 100 F (38 C). Perform the test after stabilizing the enclosure at the required temperature for a minimum of 2 hours. The test fixture shall consist of 20-pound (9 kg) cylindrical steel impacting head with a 2-inch (50 mm) spherical radius at the point where it contacts the enclosure. Drop the enclosure from a height of 12 inches (300 mm). The enclosure shall not exhibit any cracks or fractures to the housing that would preclude it from passing the water immersion test. There shall be no permanent deformation to the original diameter or characteristic vertical dimension by more than 5 percent.

678.2.2.2.4 Cable Gripping and Sealing Test

(1) The cable gripping and sealing hardware shall not cause an increase in fiber attenuation in excess of 0.05 dB/fiber at 1550 nm when attached to the cables and the enclosure assembly. The test shall consist of measurements from 6 fibers, one from each buffer tube or channel, or randomly selected in the case of a single fiber bundle. Take the measurements from the test fibers, before and after assembly to determine the effects of the cable gripping and sealing hardware on the optical transmission of the fibers.

678.2.2.2.5 Vibration Test

(1) The splice organizers shall securely hold the fiber splices and store the excess fiber. Test the fiber splice organizers and splice-retaining hardware according to EIA standard FOP-II, test condition I. The individual fibers shall not show an increase in attenuation in excess of 0.1 dB/fiber.

678.2.2.2.6 Water Immersion Test

(1) The enclosure shall be capable of preventing a 10-foot (3 m) water head from intruding into the splice compartment for a period of 7 days. Test splice enclosure by the placing of the enclosure into a pressure vessel and filling the vessel with tap water to cover the enclosure. Apply continuous pressure to the vessel to maintain a hydrostatic head equivalent to 10 feet (3 m) on the enclosure and cable. Continue this process for 30 days. Remove the enclosure and open to check for the presence of water. Any intrusion of water in the compartment containing the splices constitutes a failure.

678.2.3 Fiber Optic Terminations

(1) Furnish fiber optic connectors from the department's approved products list.

(2) Connectors shall be type ST.

(3) Connectors shall utilize epoxy or hot melt adhesive and shall include a ceramic ferrule.

678.2.4 Communication System Testing

(1) Supply all materials and equipment necessary to perform the tests as described in these specifications. All test equipment will remain property of the contractor. Use equipment consisting of, but not limited to, the following:

- Optical time domain reflectometer (OTDR).
- Optical source/power meter.
- Patch cabling.
- OTDR software.

678.3.3 Fiber Optic Terminations

Replace paragraph two and three with the following effective with the April 2007 letting:

(2) Terminate all fibers on the rear of the termination panel with type ST connectors.

(3) Install fiber optic jumpers of sufficient length to connect the front side of the termination panel to the fiber equipment contained within the cabinet.

678.5 Payment

Replace paragraph two with the following effective with the April 2007 letting:

(2) Payment for the Install Fiber Optic Cable Outdoor Plant bid items is full compensation for installing and testing department-furnished cabling.

Replace paragraph four with the following effective with the April 2007 letting:

(4) Payment for Fiber Optic Termination is full compensation for providing connectors and jumper cables; and for completing the installation using department-furnished termination panels.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.

B. Costs for conforming to this special provision are incidental to the contract.

Effective with September 2004 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS AND TRANSPORTATION FACILITIES

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

I. WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES

The schedule of "Minimum Wage Rates" attached hereto and made a part hereof furnishes the prevailing wage rates that have been determined pursuant to Section 103.50 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the various laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 103.50, Stats. If necessary to employ laborers, workers, mechanics or truck drivers whose classification is not listed on the schedule, they shall be paid at rates conformable to those listed for similar classifications. Apprentices shall be paid at rates not less than those prescribed in their state indenture contacts.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this in not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 103.50 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) the day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, eculid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

For those projects subject to the requirements of the Davis-Bacon Act, the Secretary of Labor will also have determined "Minimum Wage Rates" for work to be performed under the contract. These rates are, for all or most of the labor, worker, mechanic or truck driver classifications, identical to those established under Section 103.50 of the Wisconsin Statutes. In the event the rates are not identical, the higher of the two rates will govern.

II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 103.50 of the Wisconsin Statutes.

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.

b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)

c. A copy of the contractor's Equal Employment Opportunity Policy.

d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

IV. WAGE RATE REDISTRIBUTION

The amount specified as the hourly basic rate of pay and the amount(s) specified as the fringe benefit contribution(s), for all classes of laborers, workers, mechanics or truck drivers may be redistributed, when necessary, to conform to those specified in any applicable collective bargaining agreement, provided that both parties to such agreement

request and receive the approval for any such redistribution from both the Department of Transportation and the Department of Workforce Development prior to the implementation of such redistribution.

V. ADDITIONAL CLASSIFICATIONS

Any unlisted laborer or mechanic classification that is needed to perform work on this project, and is not included within the scope of any of the classifications listed in the application prevailing wage rate determination, may be added after award only if all of the following criteria have been met:

1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.

2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.

3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.

4. The unlisted classification must be commonly employed in the area where the project is located.

5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.

6. The request should be made prior to the actual performance of the work by the unlisted classification.

7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.

8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

The approved wage/fringe benefit package shall be paid to all laborers, workers, mechanics or truck drivers performing work within the scope of that performed by the unlisted classification, from the first day on which such work is performed. In the event that work is performed by the unlisted classification prior to approval, the wage/fringe benefit package to be paid for such work must be in conformance with the wage/fringe

benefit package approved for such work. Under this arrangement a retroactive adjustment in wages and/or fringe benefits may be required to be made to the affected laborers, workers, mechanics or truck drivers by the affected employer(s).

Equal Rights Division
Labor Standards Bureau
P. O. Box 8928
Madison, Wisconsin 53708
(608) 266-6860

FINAL DETERMINATION
ANNUAL PREVAILING WAGE RATE SURVEY DATA
RACINE COUNTY

Compiled by the State of Wisconsin
Department of Workforce Development
Pursuant to s. 103.50, Stats.
For All State Highway Projects
Issued on April 30, 2007

CLASSIFICATION: Contractors are required to call the Department of Workforce Development if there are any questions reqarding the proper trade or classification to be used for any worker on a public works project.

OVERTIME: Time and one-half must be paid for all hours worked over 10 hours per day and 40 hours per calendar week and for all hours worked on Saturday, Sunday and the following six (6) holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25; the day before if January 1, July 4 or December 25 falls on a Saturday; the day following if January 1, July 4 or December 25 falls on a Sunday.

FUTURE INCREASE: If indicated for a specific trade or occupation, the full amount of such increase MUST be added to the "TOTAL" indicated for such trade or occupation on the date(s) such increase(s) becomes effective.

PREMIUM PAY: 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.

SUBJOURNEY: Wage rates may be available for some of the classifications indicated below. Any employer that desires to use any subjourney classification on a project MUST request the applicable wage rate from the Department of Workforce Development PRIOR to the date such classification is used on such project. Form ERD-10880 is available for this purpose and can be obtained by writing to the Department of Workforce Development, Equal Rights Division, P.O. Box 8928, Madison, WI 53708.

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Bricklayer, Blocklayer or Stonemason	29.23	12.20	41.43
Carpenter	27.83	12.19	40.02
Cement Finisher	26.82	9.68	36.50
Electrician	26.80	14.88	41.68
Fence Erector	17.00	3.93	20.93
Ironworker	28.09	17.01	45.10
Future Increase(s): Add $2.00 6/3/2007; Add $2.00 6/2/2008; Add $2.00 6/1/2009; Add $ 2.00 6/7/2010; Add $2.00 6/ 6/ 2011.			
Line Constructor (Electrical)	30.22	13.21	43.43
Painter	24.09	9.22	33.31
Pavement Marking Operator	23.46	9.45	32.91
Piledriver	25.76	17.33	43.09
Future Increase(s): Add $1.45 on 6/4/07			
Premium Pay: Add $.65 for Piledriver Loftsman; Add $.75 for Sheet Pile Loftsman.			
Roofer or Waterproofer	26.00	10.33	36.33
Teledata Technician or Installer	21.98	8.89	30.87
Tuckpointer, Caulker or Cleaner	28.43	13.11	41.54
Underwater Diver (Except on Great Lakes)	25.76	15.88	41.64
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	28.81	12.70	41.51
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	25.33	12.34	37.67
Future Increase(s): Add $1.13/hr. 7/1/2007; Add $1.20/hr. 7/1/2008.			
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	21.15	10.57	31.72
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	19.64	10.14	29.78

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	17.41	9.96	27.37
Future Increase(s): Add $.78/hr. 7/1/2007; Add $.82/hr. 7/1/2008			
TRUCK DRIVERS			
Single Axle or Two Axle	14.95	4.36	19.31
Three or More Axle	20.80	12.46	33.26
Articulated, Euclid, Dumptor, Off Road Material Hauler	21.52	15.35	36.87
Future Increase(s): Add $1.60 on 6/1/07; Add $1.65 on 6/1/08			
Pavement Marking Vehicle	18.87	9.39	28.26
Shadow or Pilot Vehicle	14.95	4.36	19.31
Truck Mechanic	22.00	12.06	34.06
Future Increase(s): Add $1.45 5/1/2007; Add $1.45 5/1/2008; Add $1.65 5/1/2009; Add $1.65 5/1/2010.			
LABORERS			
General Laborer	20.38	11.77	32.15
Asbestos Abatement Worker	14.50	1.80	16.30
Landscaper	22.04	12.45	34.49
Future Increase(s): Add $1.45 on 6/1/07; Add $1.50 on 6/1/08; Add $1.35 on 6/1/09.			
Flagperson or Traffic Control Person	18.53	12.45	30.98
Future Increase(s): Add $1.45 on 6/1/07; Add $1.50 on 6/1/08; Add $1.35 on 6/1/09.			
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	14.00	0.32	14.32
Railroad Track Laborer	13.00	7.23	20.23
HEAVY EQUIPMENT OPERATORS			
Crane, Tower Crane or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons; Crane, Tower Crane or Derrick, With Boom, Leads and/or Jib Lengths Measuring 176 Feet or Over	28.97	15.35	44.32
Future Increase(s): Add $1.60 on 6/1/07; Add $1.65 on 6/1/08			
Crane, Tower Crane or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under; Crane, Tower Crane or Derrick, With Boom, Leads and/or Jib Lengths Measuring 175 Feet or Under; Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Pile Driver; Dredge (Not Performing Work on the Great Lakes)	28.47	15.35	43.82
Future Increase(s): Add $1.60 on 6/1/07; Add $1.65 on 6/1/08			
Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs.; Tractor or Truck Mounted Hydraulic Backhoe; Gradall (Cruz-Aire Type); Mechanic or Welder; Bulldozer or Endloader; Grader or Motor Patrol; Scraper (Self propelled or Tractor Drawn) 5 cu yards or more capacity; Concrete Pump, Grout Pump or Concrete Conveyor (Rotec or Bidwell Type); Concrete Breaker (Manual or Remote); Concrete Batch Plant; Power Subgrader; Concrete Spreader; Concrete Paver; Concrete Grinder or Planing Machine; Concrete Conveyor System; Concrete Slipform Placer Curb and Gutter Machine; Asphalt Plant; Asphalt Paver; Asphalt Screed; Asphalt Milling Machine; Roller (Over 5 Ton); Shouldering Machine; Boring Machine (Horizontal, Vertical or Directional); Air Track, Rotary or Percussion	27.97	15.35	43.32

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Drilling Machine; Straddle Carrier or Travel Lift; Trencher; Post Hole Digger or Driver; Tug or Launch (Not Performing Work on the Great Lakes) Future Increase(s): Add $1.60 on 6/1/07; Add $1.65 on 6/1/08			
Farm or Industrial Type Tractor; Greaser; Compactor (Self-Propelled); Concrete Saw (Vermeer Type); Concrete Bump Cutter or Grooving Machine; Tining or Curing Machine; Roller (5 Tons or Under); Broom or Sweeper; Environmental Burner Future Increase(s): Add $1.60 on 6/1/07; Add $1.65 on 6/1/08	27.97	15.35	43.32
Oiler; Crusher, Screening or Wash Plant; Air Compressor; Generator; Pump (3 Inch or Over) or Well Points; Forklift; Skid Steer Loader (With or Without Attachments); Skid Rig; Stump Chipper; Mulcher; Vibratory Hammer or Extractor Future Increase(s): Add $1.60 on 6/1/07; Add $1.65 on 6/1/08	27.42	15.35	42.77
Fiber Optic Cable Equipment	24.18	11.45	35.63
Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer	30.59	15.10	45.69
Work Performed on the Great Lakes Including Crane or Backhoe Operator; Mechanic or Welder; Assistant Hydraulic Dredge Engineer; Hydraulic Dredge Leverman or Diver's Tender	31.95	15.93	47.88
Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes Over 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	27.70	15.00	42.70
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.	27.70	15.00	42.70

The following statutory provisions apply to all state highway projects based on bids as provided in s. 84.06 (2), Stats. and are set forth below pursuant to the requirements of s. 103.50 (6), Stats.

(2) PREVAILING WAGE RATES AND HOURS OF LABOR. No person described in sub. (2m) in the employ of a contractor, subcontractor, agent or other person performing any work on a project under a contract based on bids as provided in s. 84.06 (2) to which the state is a party for the construction or improvement of any highway may be permitted to work a longer number of hours per day or per calendar week than the prevailing hours of labor determined under sub. (3); nor may he or she be paid a lesser rate of wages than the prevailing wage rate in the area in which the work is to be done determined under sub. (3); except that any such person may be permitted or required to work more than such prevailing hours of labor per day and per calendar week if he or she is paid for all hours worked in excess of the prevailing hours of labor at a rate of at least 1.5 times his or her hourly basic rate of pay.

(7) PENALTIES. (a) Except as provided in pars. (b), (d) and (f), any contractor, subcontractor or agent thereof who violates this section may be fined not more than $200 or imprisoned for not more than 6 months or both. Each day that any such violation continues shall be considered a separate offense.

(b) Whoever induces any individual who seeks to be or is employed on any project that is subject to this section to give up, waive or return any part of the wages to which the individual is entitled under the contract governing such project, or who reduces the hourly basic rate of pay normally paid to an employe for work on a project that is not subject to this section during a week in which the employe works both on a project that is subject to this section and on a project that is not subject to this section, by threat not to employ, by threat of dismissal from such employment or by any other means is guilty of an offense under s. 946.15 (1).

(c) Any person employed on a project that is subject to this section who knowingly permits a contractor, subcontractor or agent thereof to pay him or her less than the prevailing wage rate set forth in the contract governing such project, who gives up, waives or returns any part of the compensation to which he or she is entitled under the contract, or who gives up, waives or returns any part of the compensation to which he or she is normally entitled for work on a project that is not subject to this section during a week in which the person works both on a project that is subject to this section and on a project that is not subject to this section, is guilty of an offense under s. 946.15 (2).

(d) Whoever induces any individual who seeks to be or is employed on any project that is subject to this section to permit any part of the wages to which the individual is entitled under the contract governing such project to be deducted from the individual's pay is guilty of an offense under s. 946.15 (3), unless the deduction would be permitted under 29 CFR 3.5 or 3.6 from an individual who is working on a project that is subject to 40 USC 276c.

(e) Any person employed on a project that is subject to this section who knowingly permits any part of the wages to which he or she is entitled under the contract governing such project to be deducted from his or her pay is guilty of an offense under s. 946.15 (4), unless the deduction would be permitted under 29 CFR 3.5 or 3.6 from an individual who is working on a project that is subject to 40 USC 276c.

(f) Paragraph (a) does not apply to any person who fails to provide any information to the department to assist the department in determining prevailing wage rates or prevailing hours of labor under sub. (3) or (4).

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SECTION 0001 ROADWAY CONSTRUCTION					
0010	201.0105 CLEARING	42.000 STA		.		.
0020	201.0205 GRUBBING	42.000 STA		.		.
0030	203.0100 REMOVING SMALL PIPE CULVERTS	12.000 EACH		.		.
0040	203.0200 REMOVING OLD STRUCTURE (STATION) 01. 345+72.97	LUMP	LUMP			.
0050	204.0100 REMOVING PAVEMENT	7,612.000 SY		.		.
0060	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS	4,040.000 SY		.		.
0070	204.0120 REMOVING ASPHALTIC SURFACE MILLING	2,918.000 SY		.		.
0080	204.0150 REMOVING CURB & GUTTER	1,174.000 LF		.		.
0090	204.0210 REMOVING MANHOLES	1.000 EACH		.		.
0100	204.0220 REMOVING INLETS	3.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0110	204.0245 REMOVING STORM SEWER (SIZE) 01. 15-INCH	119.000 LF		.		.
0120	204.0245 REMOVING STORM SEWER (SIZE) 02. 18-INCH	153.000 LF		.		.
0130	204.0245 REMOVING STORM SEWER (SIZE) 03. 36-INCH	84.000 LF		.		.
0140	204.9060.S REMOVING (ITEM DESCRIPTION) 01. RETAINING WALL	1.000 EACH		.		.
0150	205.0100 EXCAVATION COMMON	45,286.000 CY		.		.
0160	205.0400 EXCAVATION MARSH	1,068.000 CY		.		.
0170	205.9006.S GRADING SHAPING & FINISHING FOR BARRIER TERMINALS	13.000 EACH		.		.
0180	206.1000 EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-51-101	LUMP	LUMP			.
0190	206.1000 EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 02. B-51-95	LUMP	LUMP			.
0200	206.2000 EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. C-51-22	LUMP	LUMP			.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0210	208.0100 BORROW	350,609.000 CY		.		.
0220	209.0100 BACKFILL GRANULAR	41,579.000 CY		.		.
0230	210.0100 BACKFILL STRUCTURE	594.000 CY		.		.
0240	211.0500 PREPARE FOUNDATION FOR BASE AGGREGATE	609.000 STA		.		.
0250	213.0100 FINISHING ROADWAY (PROJECT) 01. 3180-10-70	1.000 EACH		.		.
0260	214.0100 OBLITERATING OLD ROAD	1.000 STA		.		.
0270	301.0100.S QMP BASE AGGREGATE	271,320.000 TON		.		.
0280	305.0110 BASE AGGREGATE DENSE 3/4-INCH	72,190.000 TON		.		.
0290	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	201,222.000 TON		.		.
0300	311.0110 BREAKER RUN	1,000.000 TON		.		.
0310	415.0070 CONCRETE PAVEMENT 7-INCH	38.000 SY		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0320	415.2000.S INCENTIVE STRENGTH CONCRETE PAVEMENT	400.000 DOL	1.00000		400.00	
0330	415.3000.S QMP CONCRETE PAVEMENT	2.000 DAY	.		.	
0340	416.0050 CONCRETE PAVEMENT APPROACH SLAB	152.000 SY	.		.	
0350	416.0170 CONCRETE DRIVEWAY 7-INCH	203.000 SY	.		.	
0360	416.0610 PAVEMENT TIES	40.000 EACH	.		.	
0370	416.1010 CONCRETE SURFACE DRAINS	64.000 CY	.		.	
0380	455.0115 ASPHALTIC MATERIAL PG64-22	3,691.000 TON	.		.	
0390	455.0120 ASPHALTIC MATERIAL PG64-28	2,006.000 TON	.		.	
0400	455.0605 TACK COAT	13,021.000 GAL	.		.	
0410	460.1103 HMA PAVEMENT TYPE E-3	89,984.000 TON	.		.	
0420	460.2000 INCENTIVE DENSITY HMA PAVEMENT	57,599.000 DOL	1.00000		57599.00	

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0430	460.2500.S QMP HMA PAVEMENT NUCLEAR DENSITY	89,984.000 TON		.		.
0440	460.3000 QMP HMA MIXTURE	89,984.000 TON		.		.
0450	465.0105 ASPHALTIC SURFACE	2,971.000 TON		.		.
0460	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	548.000 TON		.		.
0470	465.0125 ASPHALTIC SURFACE TEMPORARY	981.000 TON		.		.
0480	465.0315 ASPHALTIC FLUMES	179.000 SY		.		.
0490	465.0400 ASPHALTIC SHOULDER RUMBLE STRIP	104,893.000 LF		.		.
0500	502.0100 CONCRETE MASONRY BRIDGES	936.000 CY		.		.
0510	502.0400.S INCENTIVE STRENGTH CONCRETE STRUCTURES	908.000 DOL	1.00000		908.00	
0520	502.3200 PROTECTIVE SURFACE TREATMENT	1,976.000 SY		.		.
0530	502.6105 MASONRY ANCHORS TYPE S 5/8-INCH	22.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0540	503.0155 PRESTRESSED GIRDER TYPE I 54W-INCH	2,158.000 LF		.		.
0550	504.0100 CONCRETE MASONRY CULVERTS	36.000 CY		.		.
0560	505.0405 BAR STEEL REINFORCEMENT HS BRIDGES	9,350.000 LB		.		.
0570	505.0410 BAR STEEL REINFORCEMENT HS CULVERTS	3,970.000 LB		.		.
0580	505.0605 BAR STEEL REINFORCEMENT HS COATED BRIDGES	144,510.000 LB		.		.
0590	505.0610 BAR STEEL REINFORCEMENT HS COATED CULVERTS	380.000 LB		.		.
0600	506.2605 BEARING PADS ELASTOMERIC NON-LAMINATED	30.000 EACH		.		.
0610	506.4000 STEEL DIAPHRAGMS (STRUCTURE) 01. B-51-101	16.000 EACH		.		.
0620	506.4000 STEEL DIAPHRAGMS (STRUCTURE) 02. B-51-95	16.000 EACH		.		.
0630	511.2110 PILING STEEL DELIVERED AND DRIVEN HP 12-INCH X 53 LB	2,410.000 LF		.		.
0640	511.2120 PILING STEEL DELIVERED AND DRIVEN HP 14-INCH X 73 LB	1,620.000 LF		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0650	512.1000 PILING STEEL SHEET TEMPORARY	3,570.000 SF		.		.
0660	516.0500 RUBBERIZED MEMBRANE WATERPROOFING	51.000 SY		.		.
0670	520.0118 CULVERT PIPE CLASS III 18-INCH	58.000 LF		.		.
0680	520.0124 CULVERT PIPE CLASS III 24-INCH	410.000 LF		.		.
0690	520.0318 CULVERT PIPE CLASS IV 18-INCH	137.000 LF		.		.
0700	520.0624 CULVERT PIPE CLASS V 24-INCH	423.000 LF		.		.
0710	520.1018 APRON ENDWALLS FOR CULVERT PIPE 18-INCH	6.000 EACH		.		.
0720	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH	14.000 EACH		.		.
0730	520.4072 CULVERT PIPE TEMPORARY 72-INCH	110.000 LF		.		.
0740	522.0524 CULVERT PIPE REINFORCED CONCRETE CLASS V 24-INCH	176.000 LF		.		.
0750	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	9.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0760	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	2.000 EACH		.		.
0770	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	6.000 EACH		.		.
0780	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D	1,620.000 LF		.		.
0790	601.0554 CONCRETE CURB & GUTTER 4-INCH MOUNTABLE 36-INCH TYPE D	148.000 LF		.		.
0800	601.0558 CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D	28,603.000 LF		.		.
0810	602.0405 CONCRETE SIDEWALK 4-INCH	200.000 SF		.		.
0820	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW	80.000 SF		.		.
0830	603.0105 CONCRETE BARRIER SINGLE-FACED 32-INCH	509.000 LF		.		.
0840	603.0500 CONCRETE BARRIER TEMPORARY PRECAST CONTRACTOR FURNISHED & DELIVERED	5,840.000 LF		.		.
0850	603.0801 CONCRETE BARRIER TEMPORARY PRECAST CONTRACTOR INSTALLED	5,840.000 LF		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0860	604.0500 SLOPE PAVING CRUSHED AGGREGATE	745.000 SY		.		.
0870	606.0100 RIPRAP LIGHT	634.000 CY		.		.
0880	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	2,040.000 LF		.		.
0890	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	405.000 LF		.		.
0900	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	720.000 LF		.		.
0910	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	42.000 LF		.		.
0920	608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	168.000 LF		.		.
0930	611.0201 MANHOLES TYPE 1	9.000 EACH		.		.
0940	611.0210 MANHOLES TYPE 3	13.000 EACH		.		.
0950	611.0301 INLETS TYPE 1	7.000 EACH		.		.
0960	611.0302 INLETS TYPE 2	2.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0970	611.0303 INLETS TYPE 3	126.000 EACH		.		.
0980	611.0305 INLETS TYPE 8	4.000 EACH		.		.
0990	611.0530 MANHOLE COVERS TYPE J	7.000 EACH		.		.
1000	611.0606 INLET COVERS TYPE B	10.000 EACH		.		.
1010	611.0609 INLET COVERS TYPE B-A	1.000 EACH		.		.
1020	611.0624 INLET COVERS TYPE H	9.000 EACH		.		.
1030	611.0627 INLET COVERS TYPE HM	113.000 EACH		.		.
1040	611.0636 INLET COVERS TYPE HM-S	8.000 EACH		.		.
1050	611.0639 INLET COVERS TYPE H-S	4.000 EACH		.		.
1060	611.0642 INLET COVERS TYPE MS	6.000 EACH		.		.
1070	611.0654 INLET COVERS TYPE V	3.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1080	611.8110 ADJUSTING MANHOLE COVERS	15.000 EACH		.		.
1090	611.8115 ADJUSTING INLET COVERS	68.000 EACH		.		.
1100	612.0106 PIPE UNDERDRAIN 6-INCH	176.000 LF		.		.
1110	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH	100.000 LF		.		.
1120	612.0212 PIPE UNDERDRAIN UNPERFORATED 12-INCH	309.000 LF		.		.
1130	612.0700 DRAIN TILE EXPLORATION	5,600.000 LF		.		.
1140	614.0115 ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2	3.000 EACH		.		.
1150	614.0150 ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	8.000 EACH		.		.
1160	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH	391.400 LF		.		.
1170	614.0220.S STEEL THRIE BEAM BULL NOSE TERMINAL	6.000 EACH		.		.
1180	614.0230.S STEEL THRIE BEAM	400.000 LF		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1190	614.0305 STEEL PLATE BEAM GUARD CLASS A	5,700.000 LF		.		.
1200	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	20.000 EACH		.		.
1210	614.0605 MARKER POSTS RIGHT-OF-WAY	226.000 EACH		.		.
1220	614.0620.S MARKER POSTS CULVERT END FLEXIBLE	43.000 EACH		.		.
1230	614.0905 CRASH CUSHIONS TEMPORARY	2.000 EACH		.		.
1240	616.0404 FENCE CHAIN LINK SALVAGED 4-FT	22.000 LF		.		.
1250	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 3180-10-70	1.000 EACH		.		.
1260	619.1000 MOBILIZATION	1.000 EACH		.		.
1270	620.0300 CONCRETE MEDIAN SLOPED NOSE	2,033.000 SF		.		.
1280	621.0100 LANDMARK REFERENCE MONUMENTS	22.000 EACH		.		.
1290	623.0200 DUST CONTROL SURFACE TREATMENT	331,752.000 SY		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1300	624.0100 WATER	2,712.000 MGAL		.		.
1310	625.0100 TOPSOIL	13,804.000 SY		.		.
1320	625.0500 SALVAGED TOPSOIL	89,457.000 SY		.		.
1330	627.0200 MULCHING	246,500.000 SY		.		.
1340	628.1104 EROSION BALES	881.000 EACH		.		.
1350	628.1504 SILT FENCE	5,536.000 LF		.		.
1360	628.1520 SILT FENCE MAINTENANCE	5,536.000 LF		.		.
1370	628.1905 MOBILIZATIONS EROSION CONTROL	10.000 EACH		.		.
1380	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	15.000 EACH		.		.
1390	628.2004 EROSION MAT CLASS I TYPE B	49,700.000 SY		.		.
1400	628.2027 EROSION MAT CLASS II TYPE C	2,100.000 SY		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1410	628.5505 POLYETHYLENE SHEETING	2,534.000 SY	.		.	
1420	628.7005 INLET PROTECTION TYPE A	67.000 EACH	.		.	
1430	628.7010 INLET PROTECTION TYPE B	16.000 EACH	.		.	
1440	628.7015 INLET PROTECTION TYPE C	67.000 EACH	.		.	
1450	628.7504 TEMPORARY DITCH CHECKS	800.000 LF	.		.	
1460	628.7550 CULVERT PIPE DITCH CHECKS	10.000 EACH	.		.	
1470	628.7560.S STONE OR ROCK DITCH CHECKS	265.000 CY	.		.	
1480	629.0205 FERTILIZER TYPE A	1.000 CWT	.		.	
1490	629.0210 FERTILIZER TYPE B	170.000 CWT	.		.	
1500	630.0120 SEEDING MIXTURE NO. 20	3,050.000 LB	.		.	
1510	630.0130 SEEDING MIXTURE NO. 30	2,400.000 LB	.		.	

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1520	630.0300 SEEDING BORROW PIT	370.000 LB		.		.
1530	631.1000 SOD LAWN	1,100.000 SY		.		.
1540	631.1100 SOD EROSION CONTROL	300.000 SY		.		.
1550	633.0100 DELINEATOR POSTS STEEL	276.000 EACH		.		.
1560	633.0500 DELINEATORS	276.000 EACH		.		.
1570	634.0614 POSTS WOOD 4X6-INCH X 14-FT	150.000 EACH		.		.
1580	634.0616 POSTS WOOD 4X6-INCH X 16-FT	161.000 EACH		.		.
1590	634.0618 POSTS WOOD 4X6-INCH X 18-FT	66.000 EACH		.		.
1600	634.0620 POSTS WOOD 4X6-INCH X 20-FT	18.000 EACH		.		.
1610	634.0622 POSTS WOOD 4X6-INCH X 22-FT	5.000 EACH		.		.
1620	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14-FT	3.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1630	637.0202 SIGNS REFLECTIVE TYPE II	4,866.000 SF		.		.
1640	638.2602 REMOVING SIGNS TYPE II	21.000 EACH		.		.
1650	638.3000 REMOVING SMALL SIGN SUPPORTS	21.000 EACH		.		.
1660	642.5401 FIELD OFFICE TYPE D	1.000 EACH		.		.
1670	642.6001 FIELD LABORATORY	1.000 EACH		.		.
1680	643.0200 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01.3180-10-70	427.000 DAYS		.		.
1690	643.0300 TRAFFIC CONTROL DRUMS	15,881.000 DAYS		.		.
1700	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	41,366.000 DAYS		.		.
1710	643.0453 TRAFFIC CONTROL BARRICADES PERMANENT TYPE III	28.000 EACH		.		.
1720	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	111.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1730	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	111.000 EACH		.		.
1740	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	16,840.000 DAYS		.		.
1750	643.0800 TRAFFIC CONTROL ARROW BOARDS	3,003.000 DAYS		.		.
1760	643.0900 TRAFFIC CONTROL SIGNS	41,364.000 DAYS		.		.
1770	643.0905.S TRAFFIC CONTROL COVERING SIGNS	20.000 EACH		.		.
1780	643.1050.S TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE	854.000 DAY		.		.
1790	643.3000 TRAFFIC CONTROL DETOUR SIGNS	29,455.000 DAYS		.		.
1800	645.0111 GEOTEXTILE FABRIC TYPE DF SCHEDULE A	148.000 SY		.		.
1810	645.0120 GEOTEXTILE FABRIC TYPE HR	986.000 SY		.		.
1820	645.0140 GEOTEXTILE FABRIC TYPE SAS	600.000 SY		.		.
1830	646.0106 PAVEMENT MARKING EPOXY 4-INCH	179,200.000 LF		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1840	646.0126 PAVEMENT MARKING EPOXY 8-INCH	9,590.000 LF		.		.
1850	646.0406 PAVEMENT MARKING SAME DAY EPOXY 4-INCH	32,600.000 LF		.		.
1860	646.0600 REMOVING PAVEMENT MARKINGS	975.000 LF		.		.
1870	646.0871.S PAVEMENT MARKING WET REFLECTIVE TAPE 4-INCH	15,200.000 LF		.		.
1880	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2	35.000 EACH		.		.
1890	647.0356 PAVEMENT MARKING WORDS EPOXY	28.000 EACH		.		.
1900	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH	528.000 LF		.		.
1910	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY	51.000 EACH		.		.
1920	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	445.000 LF		.		.
1930	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	1,840.000 LF		.		.
1940	650.4000 CONSTRUCTION STAKING STORM SEWER SYSTEM	29.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1950	650.4500 CONSTRUCTION STAKING SUBGRADE	8,436.000 LF		.		.
1960	650.5000 CONSTRUCTION STAKING BASE	37,784.000 LF		.		.
1970	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	30,371.000 LF		.		.
1980	650.6000 CONSTRUCTION STAKING PIPE CULVERTS	6.000 EACH		.		.
1990	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. C-51-22	LUMP	LUMP			.
2000	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 02. B-51-95	LUMP	LUMP			.
2010	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 03. B-51-101	LUMP	LUMP			.
2020	650.7500 CONSTRUCTION STAKING CONCRETE BARRIER	509.000 LF		.		.
2030	650.9900 CONSTRUCTION STAKING INITIAL LAYOUT	8,436.000 LF		.		.
2040	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	3,297.000 LF		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS		UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2050	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	1,693.000	LF		.		.
2060	652.0800 CONDUIT LOOP DETECTOR	1,624.000	LF		.		.
2070	653.0135 PULL BOXES STEEL 24X36-INCH	6.000	EACH		.		.
2080	653.0140 PULL BOXES STEEL 24X42-INCH	19.000	EACH		.		.
2090	654.0101 CONCRETE BASES TYPE 1	6.000	EACH		.		.
2100	654.0102 CONCRETE BASES TYPE 2	3.000	EACH		.		.
2110	654.0105 CONCRETE BASES TYPE 5	9.000	EACH		.		.
2120	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	1.000	EACH		.		.
2130	655.0220 CABLE TRAFFIC SIGNAL 4-14 AWG	136.000	LF		.		.
2140	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG	1,080.000	LF		.		.
2150	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG	8,186.000	LF		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2160	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED	3,938.000 LF		.		.
2170	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	9,208.000 LF		.		.
2180	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG	4,176.000 LF		.		.
2190	655.0700 LOOP DETECTOR LEAD IN CABLE	11,899.000 LF		.		.
2200	655.0800 LOOP DETECTOR WIRE	7,575.000 LF		.		.
2210	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. STH 11/36/83 & STH 83	LUMP	LUMP			.
2220	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 02. STH 11 & STH 36/83	LUMP	LUMP			.
2230	690.0100 SAWING EXISTING PAVEMENT	678.000 LF		.		.
2240	690.0200 SAWING CONCRETE PAVEMENT FULL DEPTH	55.000 LF		.		.
2250	SPV.0035 SPECIAL 01. QMP SUBGRADE	437,474.000 CY		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2260	SPV.0060 SPECIAL 01. CONCRETE BASE TYPE 9 MONOTUBE	4.000 EACH		.		.
2270	SPV.0060 SPECIAL 02. APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 12-INCH	4.000 EACH		.		.
2280	SPV.0060 SPECIAL 03. COVER SIGNS TYPE 1	7.000 EACH		.		.
2290	SPV.0060 SPECIAL 04. EROSION CONTROL FILTER BAGS	250.000 EACH		.		.
2300	SPV.0060 SPECIAL 05. SAND BAGS	2,040.000 EACH		.		.
2310	SPV.0105 SPECIAL 01. TRAFFIC SIGNALS & STREET LIGHTING STH 11/36/83 & STH 83	LUMP	LUMP			.
2320	SPV.0105 SPECIAL 02. TRAFFIC SIGNALS & STREET LIGHTING STH 11 & STH 36/83	LUMP	LUMP			.
2330	SPV.0105 SPECIAL 03. TEMPORARY DIVERSION CHANNEL	LUMP	LUMP			.
2340	SPV.0165 SPECIAL 01. ARCHITECTURAL SURFACE TREATMENT	1,530.000 SF		.		.
2350	SPV.0165 SPECIAL 02. CONCRETE STAINING	763.000 SF		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2360	SPV.0165 SPECIAL 03. COVERING SIGNS TYPE II	446.000 SF		.		.
2370	SPV.0170 SPECIAL 01. TEST ROLLING	679.000 STA		.		.
2380	SPV.0180 SPECIAL 01. GEOTEXTILE FABRIC TYPE FF	1,840.000 SY		.		.
2390	SPV.0195 SPECIAL 01. WASHED STONE	18.000 TON		.		.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

PLEASE ATTACH SCHEDULE OF ITEMS HERE

Wisconsin Department of Transportation

Division of Transportation System Development
Bureau of Project Development
4802 Sheboygan Avenue, Rm 601
P O Box 7916
Madison, WI 53707-7916

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

June 27, 2007

NOTICE TO ALL CONTRACTORS:

Proposal #18: 3180-10-70
Burlington Bypass
STH 83 (South) to STH 36/83 (North) – Paving
STH 11
Racine County

Letting of July 10, 2007

This is Addendum No. 1, which provides for the following:

Special Provisions
The following special provisions are added:
Article 53, Railroad Insurance and Coordination
Article 54, Plans

Schedule of Items
The following bid item quantities are revised:
Item 211.0500, Prepare Foundation for Base Aggregate; increased from 609 to 629 STA
Item 301.0100.S, QMP Base Aggregate; increased from 271,320 to 275,105 TON
Item 305.0110, Base Aggregate Dense ¾-Inch; increased from 72,190 to 72,972 TON
Item 305.0120, Base Aggregate Dense 1 ¼-Inch; increased from 201,222 to 202,148 TON
Item 455.0115, Asphaltic Material PG64-22; increased from 3,691 to 3,793 TON
Item 455.0120, Asphaltic Material PG64-28; increased from 2,006 to 2,050 TON
Item 455.0605, Tack Coat; increased from 13,021 to 13,352 GAL
Item 460.1103, HMA Pavement Type E-3; increased from 89,984 to 92,246 TON
Item 460.2500.S, QMP HMA Pavement Nuclear Density; increased from 89.984 to 92,246 TON
Item 460.3000, QMP HMA Mixture; increased from 89.984 to 92,246 TON
Item 465.0315, Asphaltic Flumes; increased from 179 to 180 SY
Item 465.0400, Asphaltic Shoulder Rumble Strip; decreased from 104,893 to 102,297 LF
Item 601.0558, Concrete Curb & Gutter 6-Inch Mountable 36-Inch Type D; increased from 28,603 to 30,762 LF
Item 611.0201, Manholes Type 1; decreased from 9 to 7 EACH
Item 611.0210, Manholes Type 3; decreased from 13 to 10 EACH
Item 611.0301, Inlets Type 1; decreased from 7 to 6 EACH
Item 611.0303, Inlets Type 3; decreased from 126 to 61 EACH
Item 611.0627, Inlet Covers Type HM; increased from 113 to 115 EACH
Item 611.0636, Inlet Covers Type HM-S; increased from 8 to 19 EACH
Item 611.8110, Adjusting Manhole Covers; increased from 15 to 17 EACH
Item 611.8115, Adjusting Inlet Covers; increased from 68 to 83 EACH
Item 620.0300, Concrete Median Sloped Nose; increased from 2,033 to 2,082 SF
Item 625.0100, Topsoil; increased from 13,804 to 14,128 SY
Item 627.0200, Mulching; increased from 246,500 to 249,731 SY
Item 628.7005, Inlet Protection Type A; decreased from 67 to 54 EACH
Item 628.7010, Inlet Protection Type B; decreased from 16 to 15 EACH

Item 628.7015, Inlet Protection Type C; increased from 67 to 149 EACH
Item 629.0210, Fertilizer Type B; increased from 170 to 172 CWT
Item 630.0120, Seeding Mixture No. 20; decreased from 3,050 to 3,015 LB
Item 630.0130, Seeding Mixture No. 30; increased from 2,400 to 2,453 LB
Item 633.0100, Delineator Posts Steel; increased from 276 to 291 EACH
Item 633.0500, Delineators; increased from 276 to 291 EACH
Item 634.0614, Posts Wood 4x6-Inch x 14-FT; decreased from 150 to 142 EACH
Item 634.0616, Posts Wood 4x6-Inch x 16-FT; increased from 161 to 193 EACH
Item 634.0618, Posts Wood 4x6-Inch x 18-FT; decreased from 66 to 59 EACH
Item 634.0620, Posts Wood 4x6-Inch x 20-FT; increased from 18 to 19 EACH
Item 634.0622, Posts Wood 4x6-Inch x 22-FT; decreased from 5 to 4 EACH
Item 637.0202, Signs Reflective Type II; increased from 4,866 to 5,071 SF
Item 643.0420, Traffic Control Barricades Type III; increased from 41,366 to 45,209 DAYS
Item 643.0705, Traffic Control Warning Lights Type A; increased from 16,840 to 19,402 DAYS
Item 643.0900, Traffic Control Signs; increased from 41,364 to 42,218 DAYS
Item 645.0120, Geotextile Fabric Type HR; increased from 986 to 1,019 SY
Item 646.0106, Pavement Marking Epoxy 4-Inch; increased from 179,200 to 181,800 LF
Item 646.0126, Pavement Marking Epoxy 8-Inch; increased from 9,590 to 11,270 LF
Item 646.0406, Pavement Marking Same Day Epoxy 4-Inch; increased from 32,600 to 33,400 LF
Item 647.0166, Pavement Marking Arrows Epoxy Type 2; increased from 35 to 43 EACH
Item 647.0356, Pavement Marking Word Epoxy; increased from 28 to 34 EACH
Item 647.0566, Pavement Marking Stop Line Epoxy 18-Inch; increased from 528 to 563 LF
Item 647.0726, Pavement Marking Diagonal Epoxy 12-Inch; increased from 445 to 467 LF
Item 650.5000, Construction Staking Base; increased from 37,784 to 38,799 LF
Item 650.5500, Construction Staking Curb Gutter and Curb & Gutter; increased from 30,371 to 32,530 LF
Item SPV.0165.03, Covering Signs Type II; increased from 446 to 595 SF
Item SPV.0170.01, Test Rolling; increased from 679 to 699 STA

The following bid item is added:

Item 606.0200 Riprap Medium

The following bid item is deleted:

Item 606.0100 Riprap Light

Attached, dated 6/28/2007, are revised Schedule of Items Pages 3 thru 5, 8 thru 19 and 23.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Richard R Filsinger

Richard R. Filsinger, P.E
Proposal Development Supervisor

ADDENDUM

PROJECT 3180-10-70

Addendum No.	Article No.	Description	Date
1	53	Railroad Insurance & Coordination	6/29/2007
1	54	Plans	6/29/2007

Addendum No. 1

Special Provisions

53. Railroad Insurance & Coordination.

A Description
Comply with 107.17 of the standard specifications for all work affecting Canadian National property and any existing tracks.

A.1 Railroad Insurance Requirements
In addition to 107.26 of the standard specifications, provide railroad protective liability insurance coverage as specified in 107.17.3 of the standard specifications. Insurance is filed in the name of Canadian National.

Notify evidence of the required coverage, and duration to Jacqueline Moder, Canadian National, at 1625 Depot Street, Stevens Point, WI 54481.

A.2 Work by Railroad
The railroad will perform the work described in this section, except for work described in other special provisions and will be accomplished without cost to the contractor: None.

A.3 Names and Addresses of Railroad Representatives for Consultation and Coordination
Amend section 108.4 of the standard specifications to include the railroad in the distribution of the initial bar chart, and monthly schedule updates. The bar chart shall specifically show work involving coordination with the railroad.

Canadian National: Contact Terry Lee, Manager Public Works, 1625 Depot Street, Stevens Point, WI, 54481, telephone 715-345-2503, Fax 715-345-2507, email terry.lee21@cn.ca. For flagging arrangements contact, Tom Tucker, Administration Specialist, Administration Service Center, 2800 Livernois, Suite 330, Troy, MI 48083, telephone 248-740-6227, Fax 248-740-6550, email tomtucker@cn.ca.

Contact Terry Lee for consultation on railroad requirements during construction and to coordinate construction activities.

A.4 Temporary Grade Crossing
If a temporary grade crossing is desired, submit a written request to the railroad representative, named in A.3, several weeks prior to the time needed. Approval is subject to the railroad's discretion. The department has made no arrangements for a temporary grade crossing.

A.5 Train Operation
Approximately 35 through freight trains operate daily through the construction site. Through freight trains operate at up to 10-50 mph.

54. Plans.

The following 8 ½ x 11-Inch plan sheets are attached and made part of the plans for this proposal:

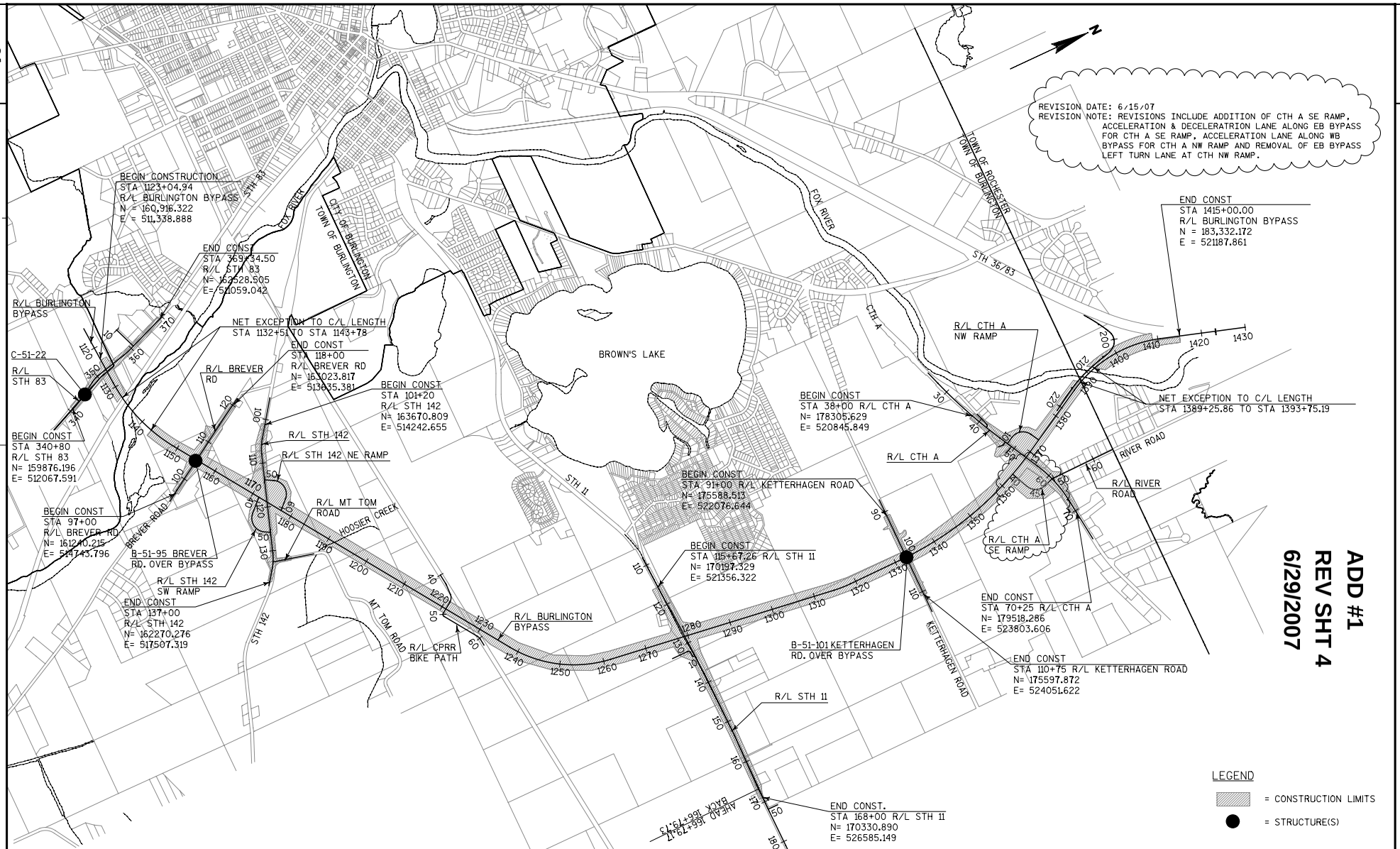
Revised plan sheets 4, 8, 9, 12, 68, 69, 70, 73, 74, 75, 76, 92, 107, 127, 129, 130, 131, 132, 133, 163, 164, 166, 167, 172, 185, 382 and 383, revised to include the new SE ramp at the CTH A interchange as well as the associated acceleration lanes along the outside of the bypass in each direction and the elimination of a left turning lane in the median of the bypass.

New plan sheets 67B, 67C, 76B, 107B and 185B, added to include the new SE ramp at the CTH A interchange as well as the associated acceleration lanes along the outside of the bypass in each direction and the elimination of a left turning lane in the median of the bypass.

New plan sheet 139A which includes the previously omitted detail for the type 9 monotube concrete bases that will be used at the STH 83 intersection.

Revised Miscellaneous Quantity sheets 207 thru 217 and 220 thru 247, revised to include the new SE ramp at the CTH A interchange as well as the associated acceleration lanes along the outside of the bypass in each direction and the elimination of a left turning lane in the median of the bypass.

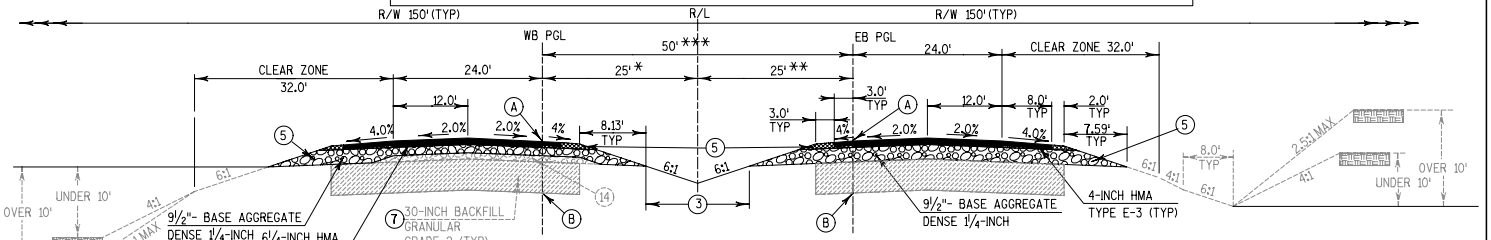
New Miscellaneous Quantity sheets 213B, 214B, 216B, 243B and 244B, added to include the new SE ramp at the CTH A interchange as well as the associated acceleration lanes along the outside of the bypass in each direction and the elimination of a left turning lane in the median of the bypass.



PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PROJECT OVERVIEW	SHEET 4	E

FILE NAME : S:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\020201_po.dgn PLOT DATE : 6/13/2007 PLOT BY : mikhall_m PLOT NAME : PLOT SCALE : -

TYPICAL SECTIONS SHOWN ON THIS SHEET REPRESENT STATION RANGES WHERE GRADING, GRANULAR MATERIAL & FINISHING OUTSIDE OF THE SUBGRADE SHOULDER POINTS WAS COMPLETED UNDER A PREVIOUS PROJECT.



TYPICAL FINISHED SECTION - BURLINGTON PYPASS

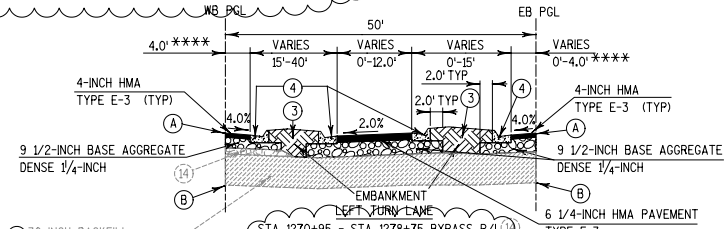
STA 1184+00 - STA 1326+00 BYPASS R/L (14)
STA 1334+00 - STA 1358+55.36 WB PGL (14)
STA 1334+00 - STA 1357+44.16 EB PGL
STA 1379+09.15 - STA 1381+21.00 WB PGL (14)
STA 1378+00 - STA 1389+61.53 EB PGL
STA 1400+61.61 - STA 1404+67.69 WB PGL (14)
STA 1394+12.88 - STA 1404+95.00 EB PGL
STA 1405+66.53 - STA 1409+00 WB PGL (14)
STA 1409+95.00 - STA 1415+00 EB PGL

* VARIES 25'-29' STA 1393+40 - STA 1408+50

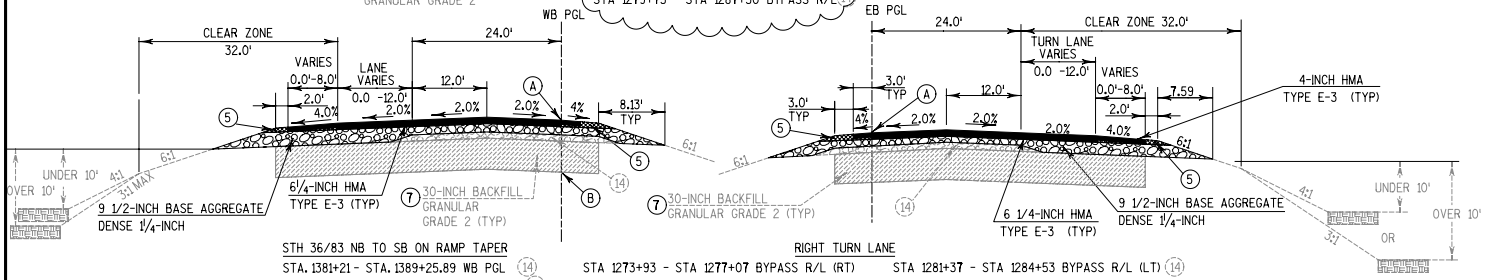
** VARIES 25'-43' STA 1385+00 - STA 1389+80
VARIES 32'-55' STA 1393+40 - STA 1408+50

*** VARIES 50'-68' STA 1385+00 - STA 1389+80
VARIES 57'-84' STA 1393+40 - STA 1408+50

**** VARIES 0'-6' STA 1365+05 - STA 1372+00

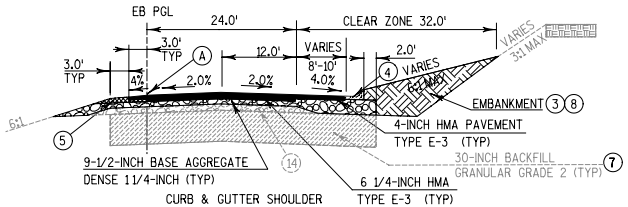


STA 1270+95 - STA 1278+75 BYPASS R/L (14)
STA 1279+75 - STA 1287+50 BYPASS R/L (14)



STH 36/83 NB TO SB ON RAMP TAPER
STA. 1381+21 - STA. 1389+25.89 WB PGL (14)
STA. 1393+25.11 - STA. 1398+62.01 WB PGL (14)

RIGHT TURN LANE
STA 1273+93 - STA 1277+07 BYPASS R/L (RT)
STA 1281+37 - STA 1284+53 BYPASS R/L (LT) (14)



CURB & GUTTER SHOULDER
STA 1398+62.01 - STA 1400+61.61 WB PGL (14)
STA 1404+67.69 - STA 1405+66.53 WB PGL (14)
STA 1404+95 - STA 1409+95 EB PGL

NOTES:

(3) = 4-INCH TOPSOIL FERTILIZER MULCH & SEED
SEE EROSION CONTROL PLAN FOR SPECIAL CONSIDERATIONS.

(4) = CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D

(5) = BASE AGGREGATE DENSE 3/4-INCH ONLY NEEDS TO BE PLACED ON TOP 3-INCHES OF FINISHED SHOULDER. ENTIRE SHOULDER IS ESTIMATED AS BASE AGGREGATE DENSE 3/4-INCH IN QUANTITIES. BASE AGGREGATE DENSE 3/4-INCH IS TO BE PLACED FLUSH WITH PAVED SURFACE.

(6) = SEE CROSS-SECTIONS FOR SPECIFIC R/W DIMENSIONS.

(7) = PLACED UNDER PREVIOUS PROJECT

(8) = EMBANKMENT REQ'D BEHIND CURB & GUTTER

(14) = A 30'X 6" STRIP OF BASE AGGREAGATE DENSE 1-1/4-INCH WAS PLACED FROM STRCT. B-51-94 TO STA 1154+00; FROM STA 1156+00 TO STA 1326+00; FROM STA 1334+00 TO STA 1372+00; FROM STA 1378+00 TO STRCT. B-51-102; AND FROM STRCT. B-51-102 TO STA 1409+00 ON THE WB ROADWAY IN A PREVIOUS PROJECT.

(A) = POINT REFERRED TO ON PROFILE @ R/L OR PGL

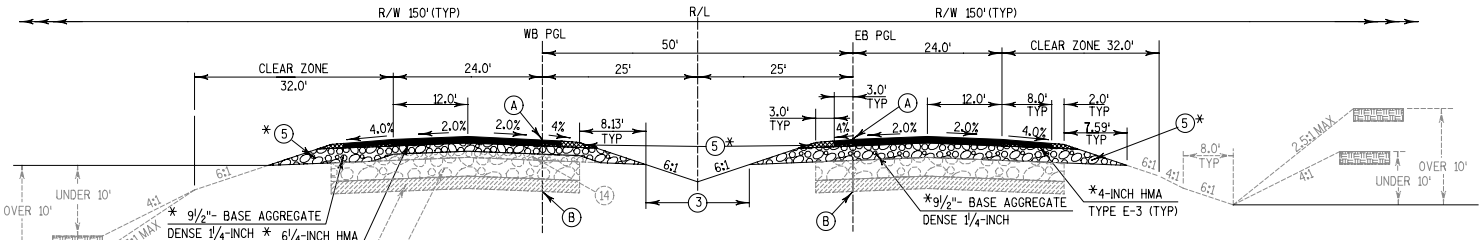
(B) = POINT REFERRED TO ON CROSS-SECTION @ R/L OR PGL

NOTE: ALL WORK COMPLETED UNDER PREVIOUS PROJECTS IS SHOWN AS DASHED LINES UNLESS OTHERWISE NOTED. ALL DISTURBED AREAS SHALL BE MULCHED, SEEDED AND FERTILIZED. THIS WORK WILL BE SHOWN AS UNDISTRIBUTED IN THE MISCELLANEOUS QUANTITIES.

REVISION DATE: 6/15/07

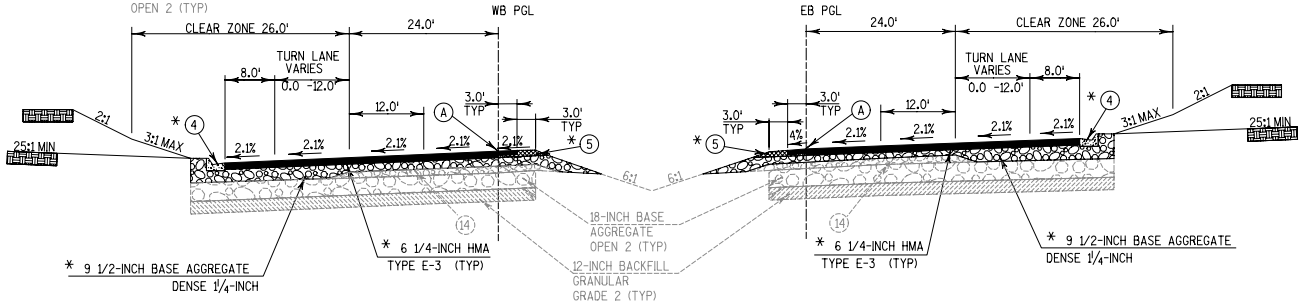
ADD #1
REV SHT 8
6/29/2007

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	TYPICAL SECTIONS	NOT - SCALE	SHEET 8	E



TYPICAL FINISHED SECTION - BURLINGTON PYPASS

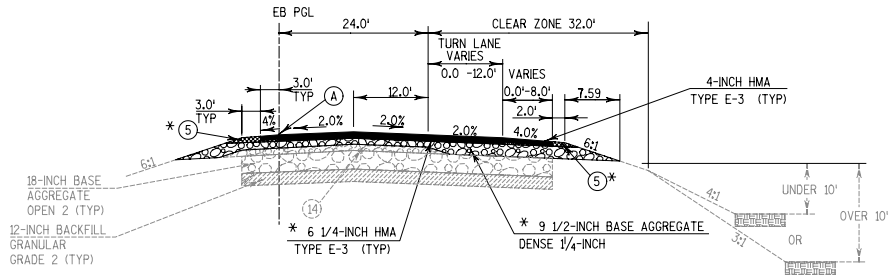
STA 1357+44.16 - STA 1379+09.15 BYPASS R/L



ACCELERATION/DECELERATION LANE (WITH CURB & GUTTER)

STA 1364+85.24 - STA 1369+60.08 R/L BYPASS (RT)

STA 1367+50.00 - STA 1369+50.00 R/L BYPASS (LT)



ACCELERATION/DECELERATION LANE

STA 1357+44.16 - STA 1362+44.15 BYPASS R/L (RT)

STA 1369+60.08 - STA 1378+00.00 BYPASS R/L (RT)

STA 1358+55.36 - STA 1367+50.00 BYPASS R/L (LT)

STA 1374+44.15 - STA 1379+09.15 BYPASS R/L (LT) (TURN LANE CURRENTLY GRADED)

NOTES:

(3) = 4-INCH TOPSOIL FERTILIZER MULCH & SEED SEE EROSION CONTROL PLAN FOR SPECIAL CONSIDERATIONS.

(4) = CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D

(5) = BASE AGGREGATE DENSE 3/4-INCH ONLY NEEDS TO BE PLACED ON TOP 3-INCHES OF FINISHED SHOULDER. ENTIRE SHOULDER IS ESTIMATED AS BASE AGGREGATE DENSE 3/4-INCH IN QUANTITIES. BASE AGGREGATE DENSE 3/4-INCH IS TO BE PLACED FLUSH WITH PAVED SURFACE.

(6) = SEE CROSS-SECTIONS FOR SPECIFIC R/W DIMENSIONS.

(14) = A 30'X 6" STRIP OF BASE AGGREAGATE DENSE 1-1/4-INCH IS CURRENTLY IN PLACE FROM STA 1334+00 TO STA 1372+00; AND FROM STA 1378+00 TO STRCT. B-51-102 ON THE WB ROADWAY.

(A) = POINT REFERRED TO ON PROFILE @ R/L OR PGL

(B) = POINT REFERRED TO ON CROSS-SECTION @ R/L OR PGL

NOTE: ALL WORK CURRENTLY IN PLACE IS SHOWN AS DASHED LINES UNLESS OTHERWISE NOTED. ALL DISTURBED AREAS SHALL BE MULCHED, SEEDED AND FERTILIZED. THIS WORK WILL BE SHOWN AS UNDISTRIBUTED IN THE MISCELLANEOUS QUANTITIES.

* = TO BE PLACED IN PROJECT 3180-10-70.

REVISION DATE: 6/15/07
REVISION NOTE: SHEET 020303_ts3.dgn HAS BEEN REPLACED BY SHEET 020303b_ts3.dgn

ADD #1
REV SHT 9
6/29/2007

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	TYPICAL SECTIONS	NOT - SCALE	SHEET 9	E

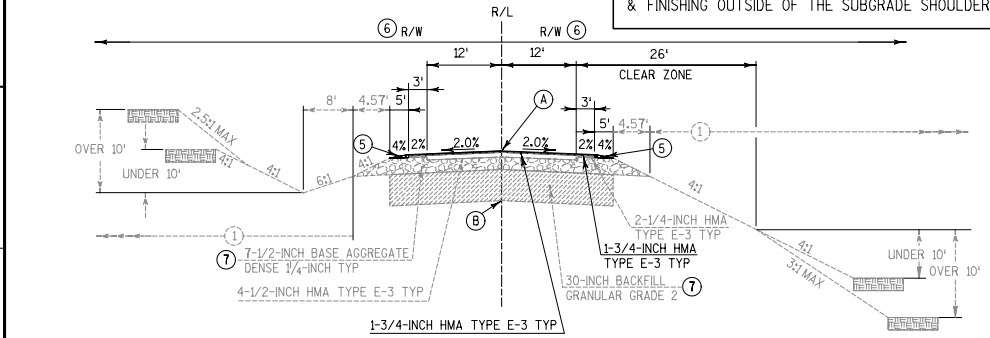
FILE NAME : S:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\020303b_ts3.dgn PLOT DATE : 6/13/2007 PLOT BY : mikhall_m PLOT NAME : PLOT SCALE : -

2

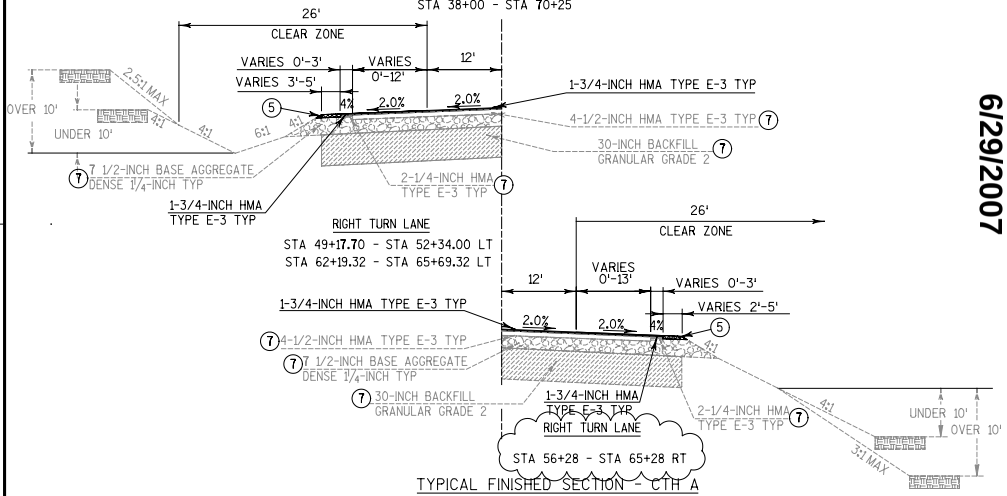
TYPICAL SECTIONS SHOWN ON THIS SHEET REPRESENT STATION RANGES WHERE GRADING, GRANULAR MATERIAL & FINISHING OUTSIDE OF THE SUBGRADE SHOULDER POINTS WAS COMPLETED UNDER A PREVIOUS PROJECT.

REVISION DATE: 6/15/07

2

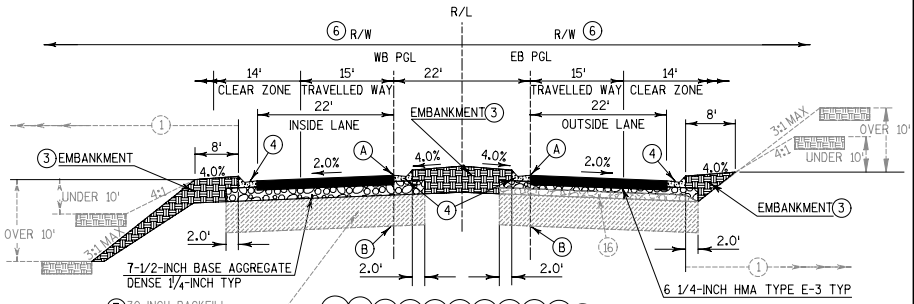


1-3/4-INCH HMA TYPE E-3 TYP
STA 38+00 - STA 70+25

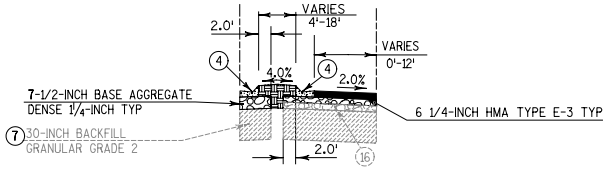


TYPICAL FINISHED SECTION - CTH A

ADD #1
REV SHT 12
6/29/2007

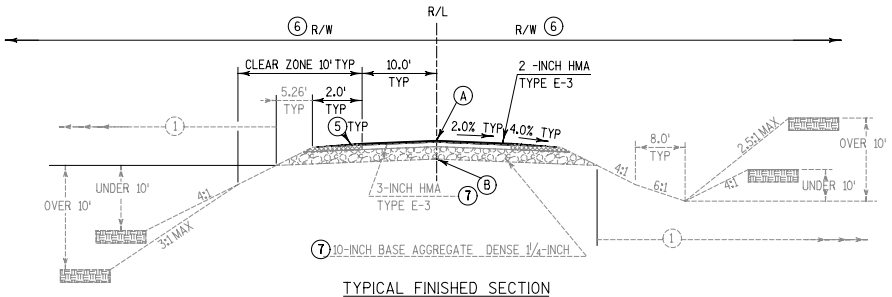


CTH A NW RAMP STA 53+71.21 - STA 58+13.73
CTH A SE RAMP STA 39+62.09 - STA 46+70.78



CTH A NW RAMP STA 50+24 - STA 53+57.21
CTH A SE RAMP STA 46+70.68 - STA 49+77.78

TYPICAL FINISHED SECTION - CTH A RAMPS



TYPICAL FINISHED SECTION
RIVER ROAD STA 49+62.51 - STA 52+00.00
OLD CTH A STA 48+00.00 - STA 50+00.00

NOTES:

(1) = 4-INCH SALVAGED TOPSOIL FERTILIZER MULCH & SEED
SEE EROSION CONTROL PLAN FOR SPECIAL CONSIDERATIONS.

(3) = 4-INCH TOPSOIL FERTILIZER MULCH & SEED
SEE EROSION CONTROL PLAN FOR SPECIAL CONSIDERATIONS.

(4) = CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D

(5) = BASE AGGREGATE DENSE 3/4-INCH ONLY NEEDS TO BE PLACED ON TOP 3-INCHES OF FINISHED SHOULDER. ENTIRE SHOULDER IS ESTIMATED AS BASE AGGREGATE DENSE 3/4-INCH IN QUANTITIES. BASE AGGREGATE DENSE 3/4-INCH IS TO BE PLACED FLUSH WITH PAVED SURFACE.

(6) = SEE CROSS-SECTIONS FOR SPECIFIC R/W DIMENSIONS.

(7) = PLACED UNDER PREVIOUS PROJECT

(A) = POINT REFERRED TO ON PROFILE @ R/L OR PGL

(B) = POINT REFERRED TO ON CROSS-SECTION @ R/L OR PGL

(16) = A 30'X 6" STRIP OF BASE AGGREAGATE DENSE 1-1/4-INCH WAS PLACED FROM STA 51+00 TO STA 58+25.74 ON THE OUTSIDE ROADWAY OF THE CTH A NW RAMP IN A PREVIOUS PROJECT

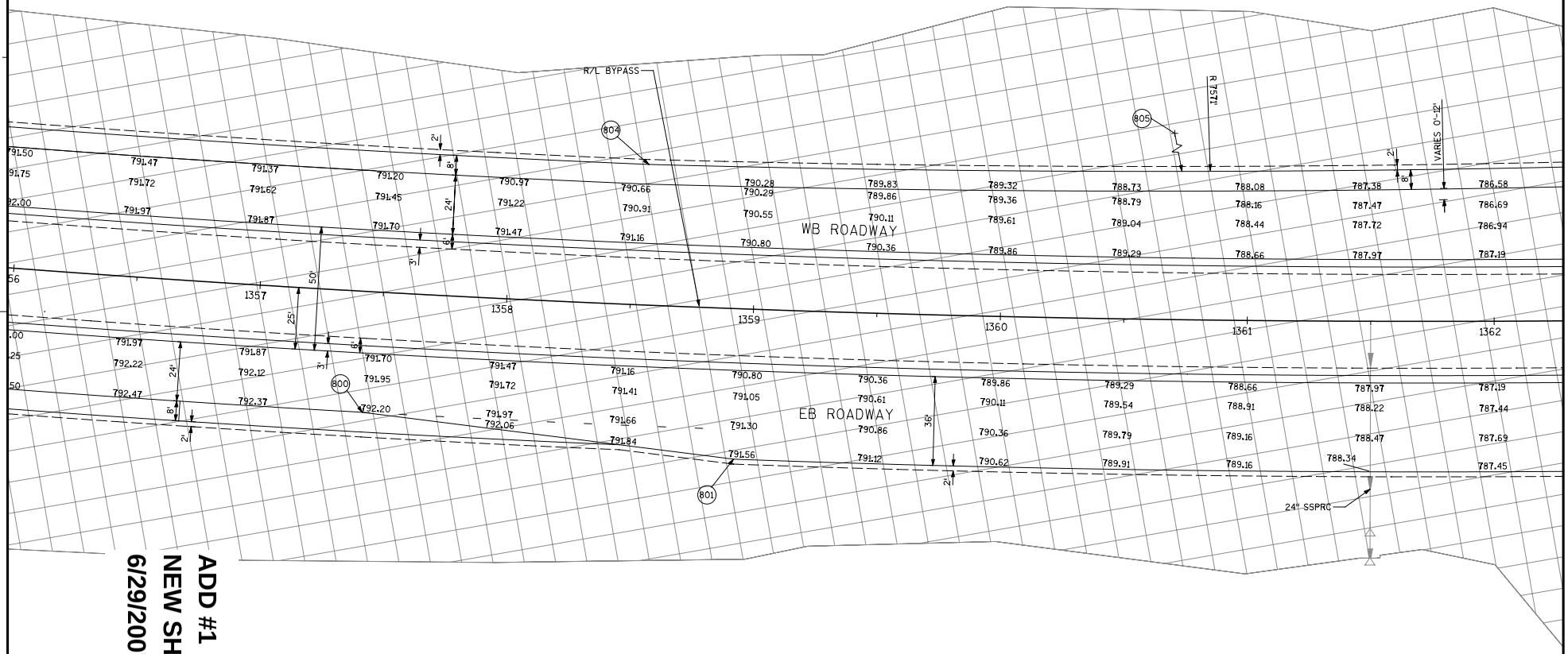
NOTE: ALL WORK COMPLETED UNDER PREVIOUS PROJECTS IS SHOWN AS DASHED LINES UNLESS OTHERWISE NOTED. ALL DISTURBED AREAS SHALL BE MULCHED, SEEDED AND FERTILIZED. THIS WORK WILL BE SHOWN AS UNDISTRIBUTED IN THE MISCELLANEOUS QUANTITIES.

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	TYPICAL SECTIONS	NOT TO SCALE	SHEET 12	E

BYPASS EB R/L SUPER ELEVATION TABLE				
STATION	ROADWAY	INSIDE LANE RATE %	OUTSIDE LANE RATE %	REMARK
1330+60	EB BYPASS	-2.0%	-2.0%	END NC
1331+15	EB BYPASS	-2.0%	FLAT	ZERO SE
1331+67	EB BYPASS	-2.0%	+2.0%	RC
1331+70	EB BYPASS	-2.1%	+2.1%	BEGIN FS
1369+85	EB BYPASS	-2.1%	+2.1%	END FS
1369+88	EB BYPASS	-2.0%	+2.0%	RC
1370+40	EB BYPASS	-2.0%	FLAT	ZERO SUPER
1370+95	EB BYPASS	-2.0%	-2.0%	END NC

BYPASS WB R/L SUPER ELEVATION TABLE				
STATION	ROADWAY	INSIDE LANE RATE %	OUTSIDE LANE RATE %	REMARK
1330+60	EB BYPASS	-2.0%	-2.0%	END NC
1331+15	EB BYPASS	FLAT	-2.0%	ZERO SE
1331+67	EB BYPASS	+2.0%	-2.0%	RC
1331+70	EB BYPASS	+2.1%	-2.1%	BEGIN FS
1369+85	EB BYPASS	+2.1%	-2.1%	END FS
1369+88	EB BYPASS	+2.0%	-2.0%	RC
1370+40	EB BYPASS	FLAT	-2.0%	ZERO SUPER
1370+95	EB BYPASS	-2.0%	-2.0%	END NC

POINTS TABLE				
POINT #	STATION	OFFSET	RADIUS	ROADWAY R/L
800	1357+44.16	49.00'		R/L BYPASS
801	1358+94.15	61.00'		R/L BYPASS
804	1358+55.36	-57.00'		R/L BYPASS
805	1330+52.63	-7590.37'	7591'	R/L BYPASS

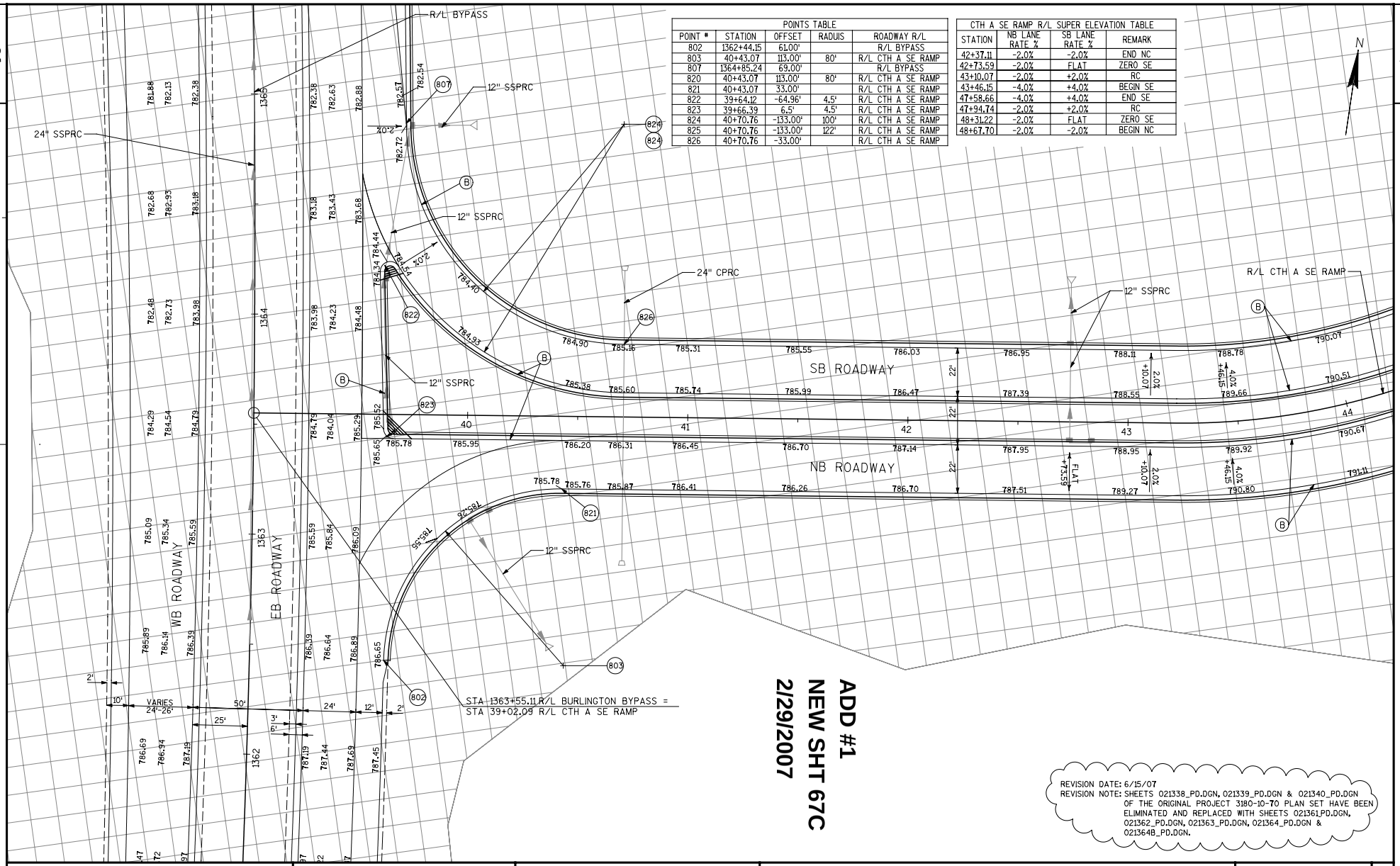


ADD #1
NEW SHT 67B
6/29/2007

REVISION DATE: 6/15/07
REVISION NOTE: SHEETS 021338_PD.DGN, 021339_PD.DGN & 021340_PD.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAVE BEEN ELIMINATED AND REPLACED WITH SHEETS 021361PD.DGN, 021362_PD.DGN, 021363_PD.DGN, 021364_PD.DGN & 021364B_PD.DGN.

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	INTERSECTION/PAVING DETAILS: MAINLINE	SHEET 67B	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\021361_pd.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : _____ PLOT SCALE : -



POINTS TABLE				
POINT #	STATION	OFFSET	RADIUS	ROADWAY R/L
802	1362+44.15	61.00'		R/L BYPASS
803	40+43.07	113.00'	80'	R/L CTH A SE RAMP
807	1364+85.24	69.00'		R/L BYPASS
820	40+43.07	113.00'	80'	R/L CTH A SE RAMP
821	40+43.07	33.00'		R/L CTH A SE RAMP
822	39+64.12	-64.96'	4.5'	R/L CTH A SE RAMP
823	39+66.39	6.5'	4.5'	R/L CTH A SE RAMP
824	40+70.76	-133.00'	100'	R/L CTH A SE RAMP
825	40+70.76	-133.00'	122'	R/L CTH A SE RAMP
826	40+70.76	-33.00'		R/L CTH A SE RAMP

CTH A SE RAMP R/L SUPER ELEVATION TABLE			
STATION	NB LANE RATE %	SB LANE RATE %	REMARK
42+37.11	-2.0%	-2.0%	END NC
42+73.59	-2.0%	FLAT	ZERO SE
43+10.07	-2.0%	+2.0%	RC
43+46.15	-4.0%	+4.0%	BEGIN SE
47+58.66	-4.0%	+4.0%	END SE
47+94.74	-2.0%	+2.0%	RC
48+31.22	-2.0%	FLAT	ZERO SE
48+67.70	-2.0%	-2.0%	BEGIN NC

ADD #1
NEW SHT 67C
2/29/2007

REVISION DATE: 6/15/07
REVISION NOTE: SHEETS 021338_PD.DGN, 021339_PD.DGN & 021340_PD.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAVE BEEN ELIMINATED AND REPLACED WITH SHEETS 021361_PD.DGN, 021362_PD.DGN, 021363_PD.DGN, 021364_PD.DGN & 021364B_PD.DGN.

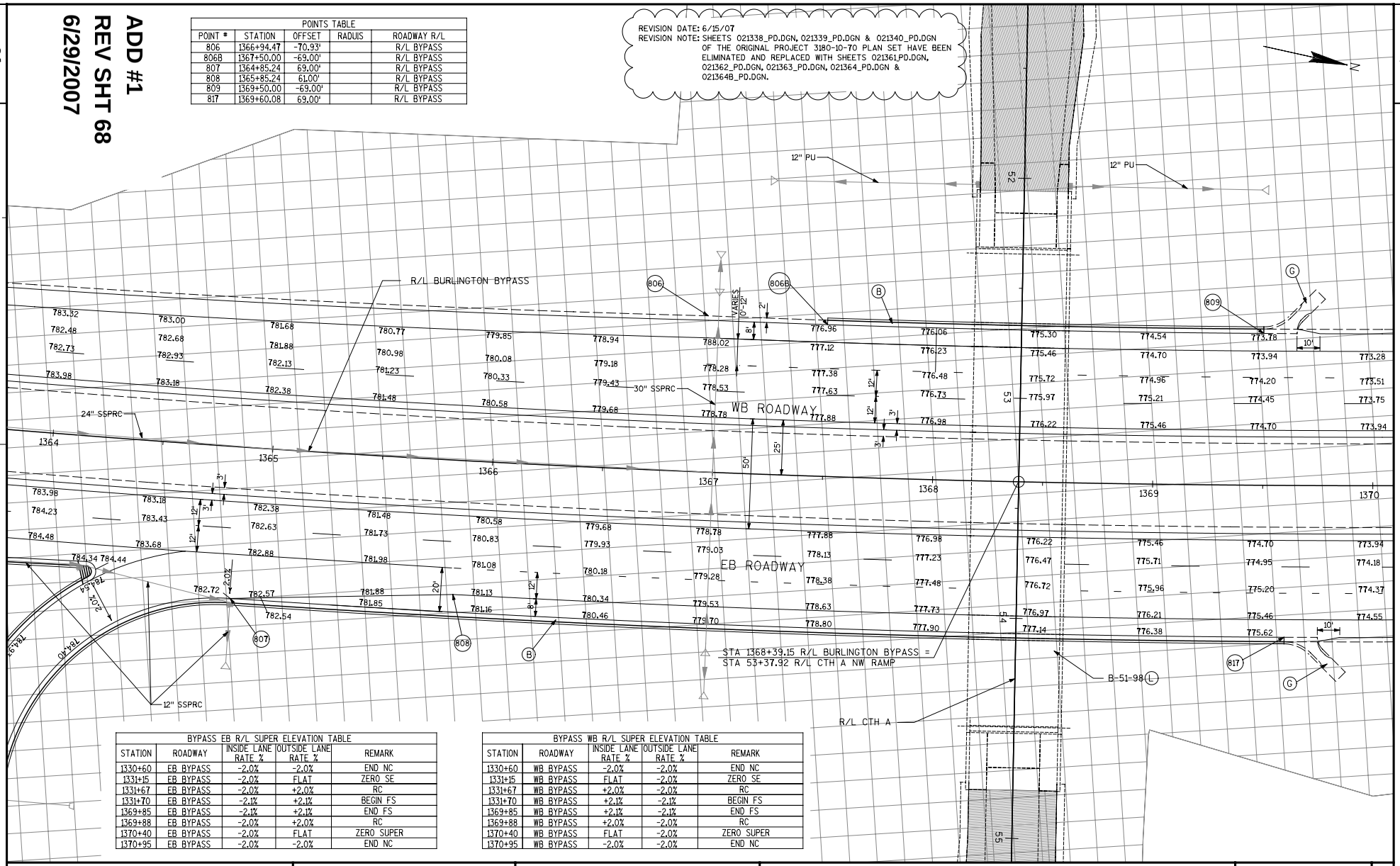
PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	INTERSECTION/PAVING DETAILS: MAINLINE/CTH A SE RAMP	SHEET 67C	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\021362_pd.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : _____ PLOT SCALE : -

ADD #1
REV SHT 68
6/29/2007

POINTS TABLE				
POINT #	STATION	OFFSET	RADIUS	ROADWAY R/L
806	1366+94.47	-70.93'		R/L BYPASS
806B	1367+50.00	-69.00'		R/L BYPASS
807	1364+85.24	69.00'		R/L BYPASS
808	1365+85.24	61.00'		R/L BYPASS
809	1369+50.00	-69.00'		R/L BYPASS
817	1369+60.08	69.00'		R/L BYPASS

REVISION DATE: 6/15/07
REVISION NOTE: SHEETS 021338_PD.DGN, 021339_PD.DGN & 021340_PD.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAVE BEEN ELIMINATED AND REPLACED WITH SHEETS 021361_PD.DGN, 021362_PD.DGN, 021363_PD.DGN, 021364_PD.DGN & 021364B_PD.DGN.



BYPASS EB R/L SUPER ELEVATION TABLE				
STATION	ROADWAY	INSIDE LANE RATE %	OUTSIDE LANE RATE %	REMARK
1330+60	EB BYPASS	-2.0%	-2.0%	END NC
1331+15	EB BYPASS	-2.0%	FLAT	ZERO SE
1331+67	EB BYPASS	-2.0%	+2.0%	RC
1331+70	EB BYPASS	-2.1%	+2.1%	BEGIN FS
1369+85	EB BYPASS	-2.1%	+2.1%	END FS
1369+88	EB BYPASS	-2.0%	+2.0%	RC
1370+40	EB BYPASS	-2.0%	FLAT	ZERO SUPER
1370+95	EB BYPASS	-2.0%	-2.0%	END NC

BYPASS WB R/L SUPER ELEVATION TABLE				
STATION	ROADWAY	INSIDE LANE RATE %	OUTSIDE LANE RATE %	REMARK
1330+60	WB BYPASS	-2.0%	-2.0%	END NC
1331+15	WB BYPASS	FLAT	-2.0%	ZERO SE
1331+67	WB BYPASS	+2.0%	-2.0%	RC
1331+70	WB BYPASS	+2.1%	-2.1%	BEGIN FS
1369+85	WB BYPASS	+2.1%	-2.1%	END FS
1369+88	WB BYPASS	+2.0%	-2.0%	RC
1370+40	WB BYPASS	FLAT	-2.0%	ZERO SUPER
1370+95	WB BYPASS	-2.0%	-2.0%	END NC

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	INTERSECTION/PAVING DETAILS: MAINLINE	SHEET 68	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\021363_pd.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : _____ PLOT SCALE : -

ADD #1
REV SHT 69
6/29/2007

REVISION DATE: 6/15/07
REVISION NOTE: SHEETS 021338 PD.DGN, 021339 PD.DGN & 021340 PD.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAVE BEEN ELIMINATED AND REPLACED WITH SHEETS 021361 PD.DGN, 021362 PD.DGN, 021363 PD.DGN, 021364 PD.DGN & 021364B PD.DGN.

CONSTRUCT REJECT CURB AND GUTTER ON THE LEFT SIDE OF THE SB LANE FROM STATION 51+50 TO STATION 57+00, AND ON THE LEFT SIDE OF THE NB LANE FROM STATION 51+00 TO STATION 57+50. TRANSITION TO STANDARD CURB AND GUTTER IN 25 FEET AT THE BEGINNING AND END STATIONS

POINTS TABLE				
POINT #	STATION	OFFSET	RADIUS	ROADWAY R/L
809	1369+50.00	-69.00'		R/L BYPASS
810	1370+98.15	-61.00'		R/L BYPASS
811	1371+98.15	-69.00'		R/L BYPASS
812	57+05.74	133.00'	100'	R/L NW RAMP CTH A
812B	57+05.74	133.00'	122'	R/L NW RAMP CTH A
813	57+05.74	33.00'		R/L NW RAMP CTH A
814	1372+65.55	-62.50'	3.5'	R/L BYPASS
815	1373+37.65	-61.50'	4.5'	R/L BYPASS
816	1372+20.15	-49.00'		R/L BYPASS
818	1370+04.38	69.00'		R/L BYPASS

R/L NW RAMP CTH A
R/L BYPASS
NB ROADWAY
SB ROADWAY
WB ROADWAY
EB ROADWAY
12" SSPRC
30" SSPRC
18" SSPRC
STA 1373+31.15 R/L BURLINGTON BYPASS =
STA 58+74.74 R/L CTH A NW RAMP

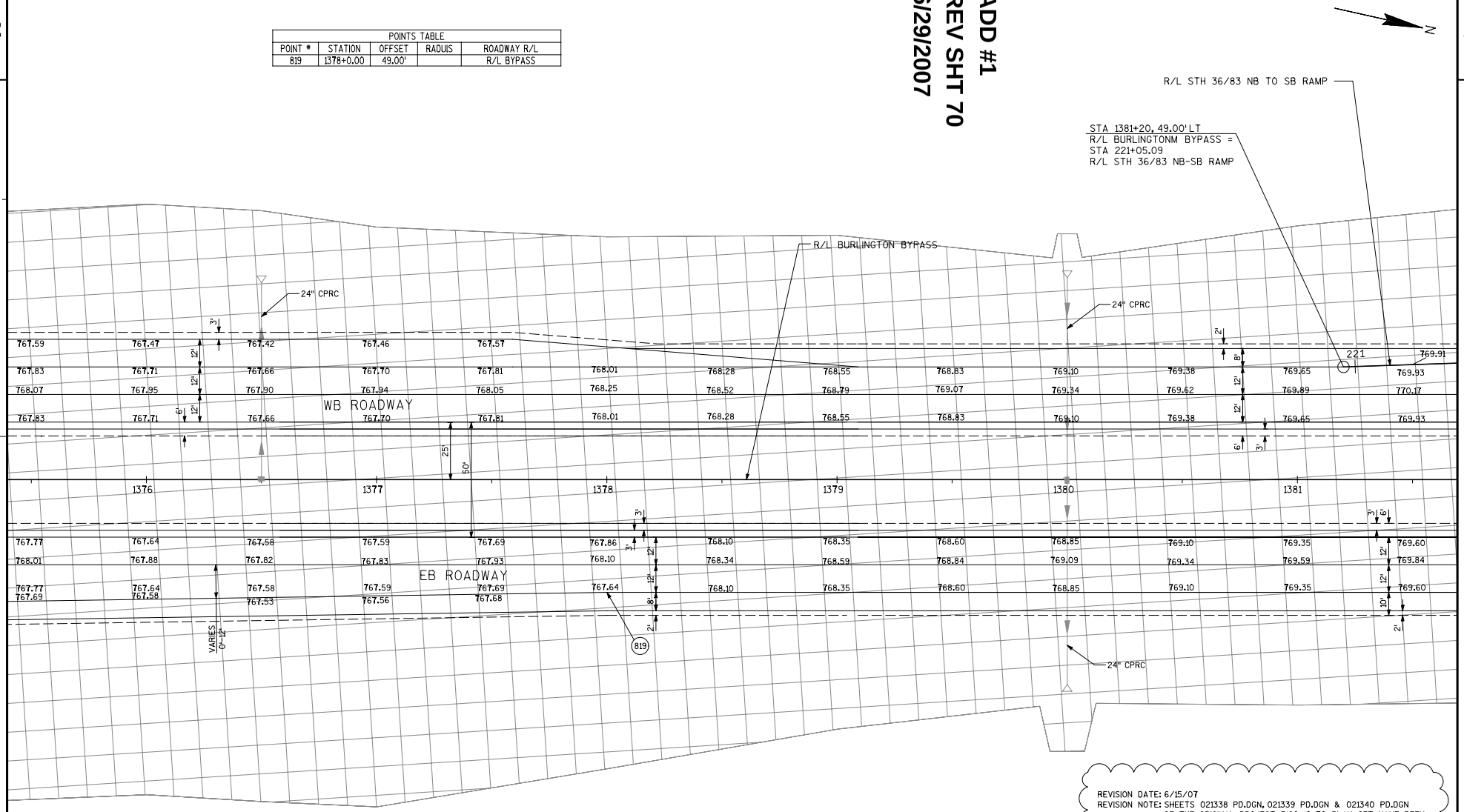
BYPASS EB R/L SUPER ELEVATION TABLE				
STATION	ROADWAY	INSIDE LANE RATE %	OUTSIDE LANE RATE %	REMARK
1330+60	EB BYPASS	-2.0%	-2.0%	END NC
1331+15	EB BYPASS	-2.0%	FLAT	ZERO SE
1331+67	EB BYPASS	-2.0%	+2.0%	RC
1331+70	EB BYPASS	-2.1%	+2.1%	BEGIN FS
1369+85	EB BYPASS	-2.1%	+2.1%	END FS
1369+88	EB BYPASS	-2.0%	+2.0%	RC
1370+40	EB BYPASS	-2.0%	FLAT	ZERO SUPER
1370+95	EB BYPASS	-2.0%	-2.0%	END NC

BYPASS WB R/L SUPER ELEVATION TABLE				
STATION	ROADWAY	INSIDE LANE RATE %	OUTSIDE LANE RATE %	REMARK
1330+60	WB BYPASS	-2.0%	-2.0%	END NC
1331+15	WB BYPASS	FLAT	-2.0%	ZERO SE
1331+67	WB BYPASS	+2.0%	-2.0%	RC
1331+70	WB BYPASS	+2.1%	-2.1%	BEGIN FS
1369+85	WB BYPASS	+2.1%	-2.1%	END FS
1369+88	WB BYPASS	+2.0%	-2.0%	RC
1370+40	WB BYPASS	FLAT	-2.0%	ZERO SUPER
1370+95	WB BYPASS	-2.0%	-2.0%	END NC

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	INTERSECTION/PAVING DETAILS: MAINLINE/CTH A NW RAMP	SHEET 69	E

ADD #1
REV SHT 70
6/29/2007

POINTS TABLE				
POINT #	STATION	OFFSET	RADIUS	ROADWAY R/L
819	1378+0.00	49.00'		R/L BYPASS



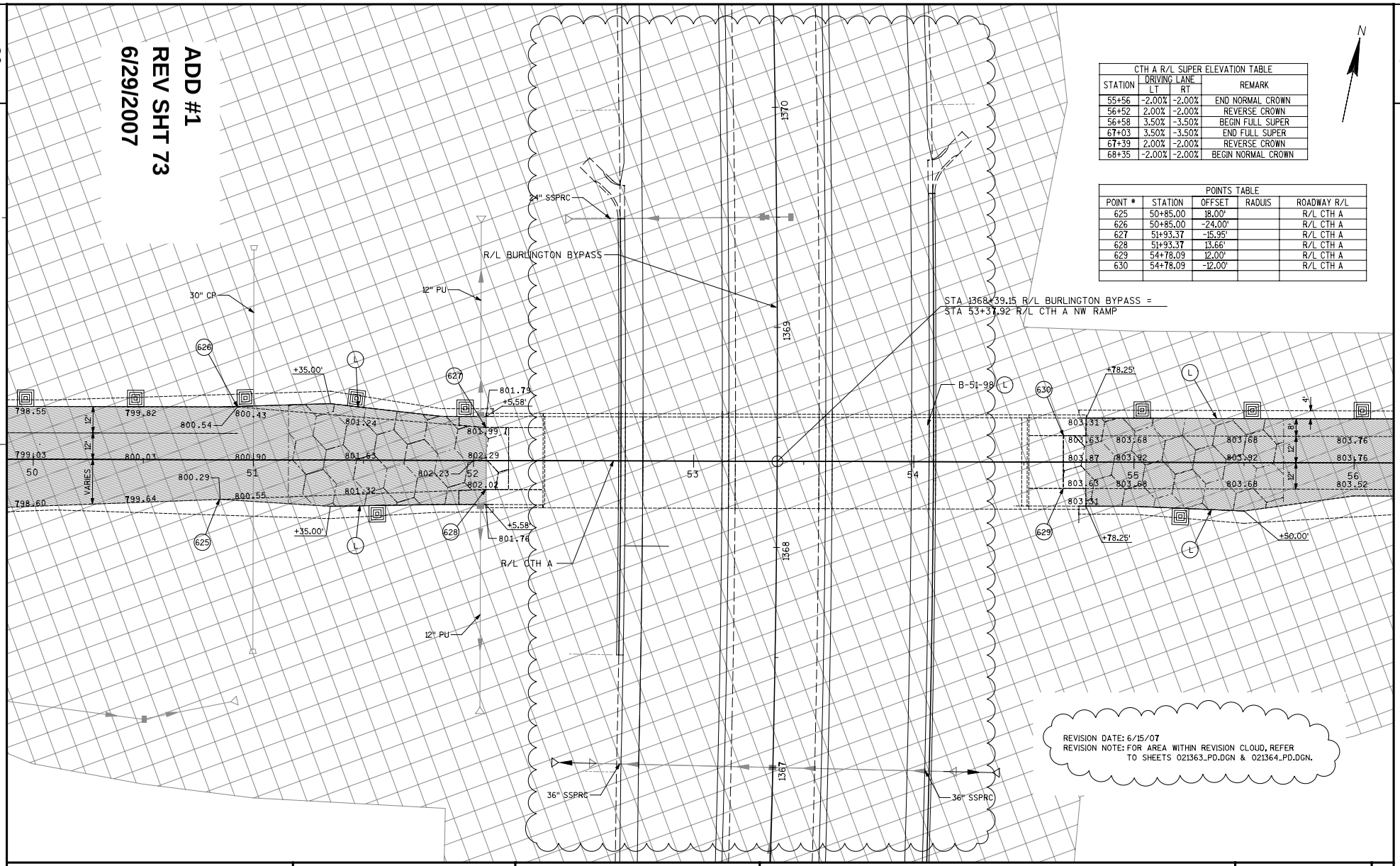
REVISION DATE: 6/15/07
REVISION NOTE: SHEETS 021338 PD.DGN, 021339 PD.DGN & 021340 PD.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAVE BEEN ELIMINATED AND REPLACED WITH SHEETS 021361 PD.DGN, 021362 PD.DGN, 021363 PD.DGN, 021364 PD.DGN & 021364B PD.DGN.

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	INTERSECTION/PAVING DETAILS: MAINLINE	SHEET 70	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\021364b_pd.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

2

ADD #1
REV SHT 73
6/29/2007



CTH A R/L SUPER ELEVATION TABLE

STATION	DRIVING LANE LT	DRIVING LANE RT	REMARK
55+56	-2.00%	-2.00%	END NORMAL CROWN
56+52	2.00%	-2.00%	REVERSE CROWN
56+58	3.50%	-3.50%	BEGIN FULL SUPER
67+03	3.50%	-3.50%	END FULL SUPER
67+39	2.00%	-2.00%	REVERSE CROWN
68+35	-2.00%	-2.00%	BEGIN NORMAL CROWN

POINTS TABLE

POINT #	STATION	OFFSET	RADIUS	ROADWAY R/L
625	50+85.00	18.00'		R/L CTH A
626	50+85.00	-24.00'		R/L CTH A
627	51+93.37	-15.95'		R/L CTH A
628	51+93.37	13.66'		R/L CTH A
629	54+78.09	12.00'		R/L CTH A
630	54+78.09	-12.00'		R/L CTH A

REVISION DATE: 6/15/07
REVISION NOTE: FOR AREA WITHIN REVISION CLOUD, REFER TO SHEETS 021363_PD.DGN & 021364_PD.DGN.

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	INTERSECTION/PAVING DETAILS: CTH A	SHEET 73	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\021343_pd10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

REVISION DATE: 6/15/07
REVISION NOTE: SHEET 021344_PD.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAS BEEN ELIMINATED AND REPLACED WITH THIS SHEET (021367_PD.DGN)

ADD #1
REV SHT 74
6/29/2007

POINTS TABLE

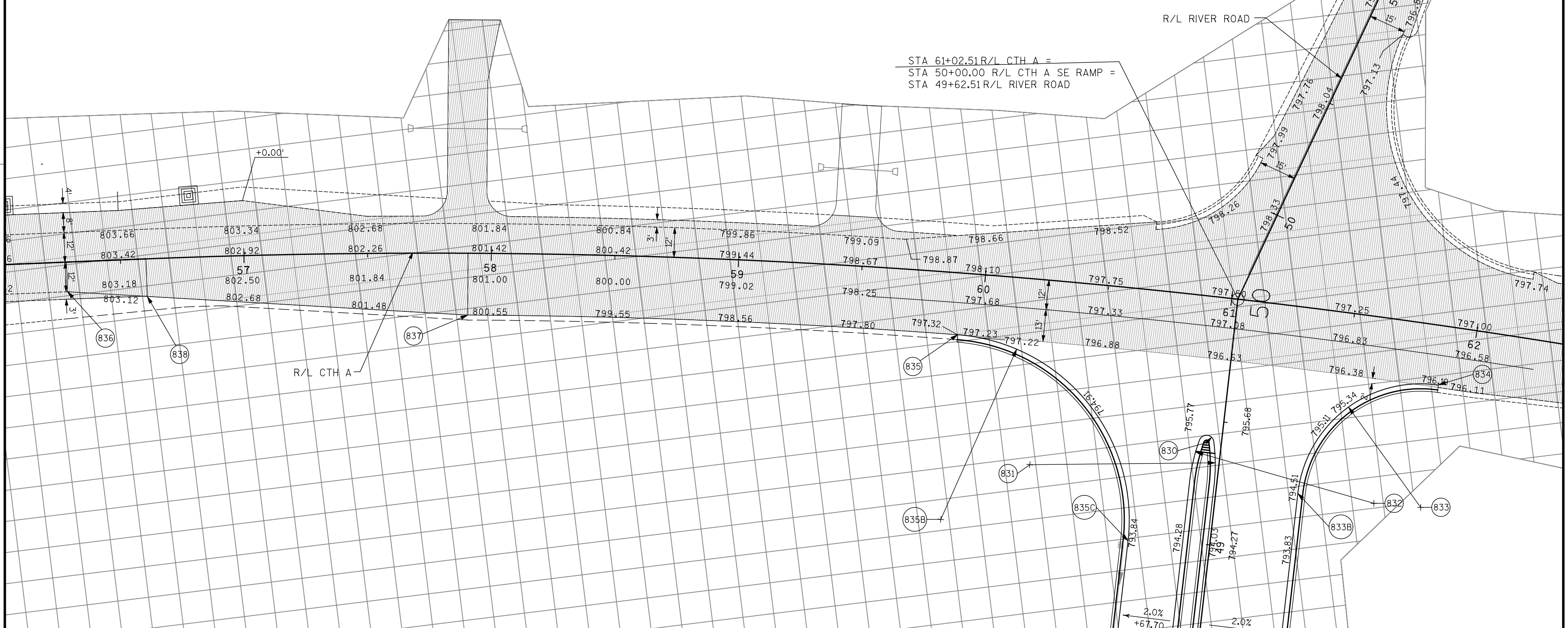
POINT #	STATION	OFFSET	RADUIS	ROADWAY R/L
827	46+70.58	11.00'		R/L CTH A SE RAMP
828	47+83.00	2.28'		R/L CTH A SE RAMP
828B	48+24.00	-4.0'		R/L CTH A SE RAMP
829	43+35.33	-286.11'	311'	R/L CTH A SE RAMP
830	49+40.97	-6.04'	3'	R/L CTH A SE RAMP
831	49+23.97	-76.00'	75'	R/L CTH A SE RAMP
832	49+24.27	64.00'	75'	R/L CTH A SE RAMP
833	49+24.77	83.00'	50'	R/L CTH A SE RAMP
833B	49+24.77	33.00'		R/L CTH A SE RAMP
834	49+74.74	84.49'		R/L CTH A SE RAMP
835	49+72.83	-110.93'		R/L CTH A SE RAMP
835B	48+97.89	-108.00'	75'	R/L CTH A SE RAMP
835C	48+97.89	-33.00'		R/L CTH A SE RAMP
836	56+28.21	12.00'		R/L CTH A
837	57+90.57	25.00'		R/L CTH A
838	56+60.20	15.23'		R/L CTH A

CTH A SE RAMP R/L SUPER ELEVATION TABLE

STATION	NB LANE RATE %	SB LANE RATE %	REMARK
42+37.11	-2.0%	-2.0%	END NC
42+73.59	-2.0%	FLAT	ZERO SE
43+10.07	-2.0%	+2.0%	RC
43+46.15	-4.0%	+4.0%	BEGIN SE
47+58.66	-4.0%	+4.0%	END SE
47+94.74	-2.0%	+2.0%	RC
48+31.22	-2.0%	FLAT	ZERO SE
48+67.70	-2.0%	-2.0%	BEGIN NC

END CONSTRUCTION
STA 52+25 R/L RIVER ROAD
(SEE HMA WEDGE REMOVAL @ SIDE ROAD MATCH POINT AND BRIDGES DETAIL)

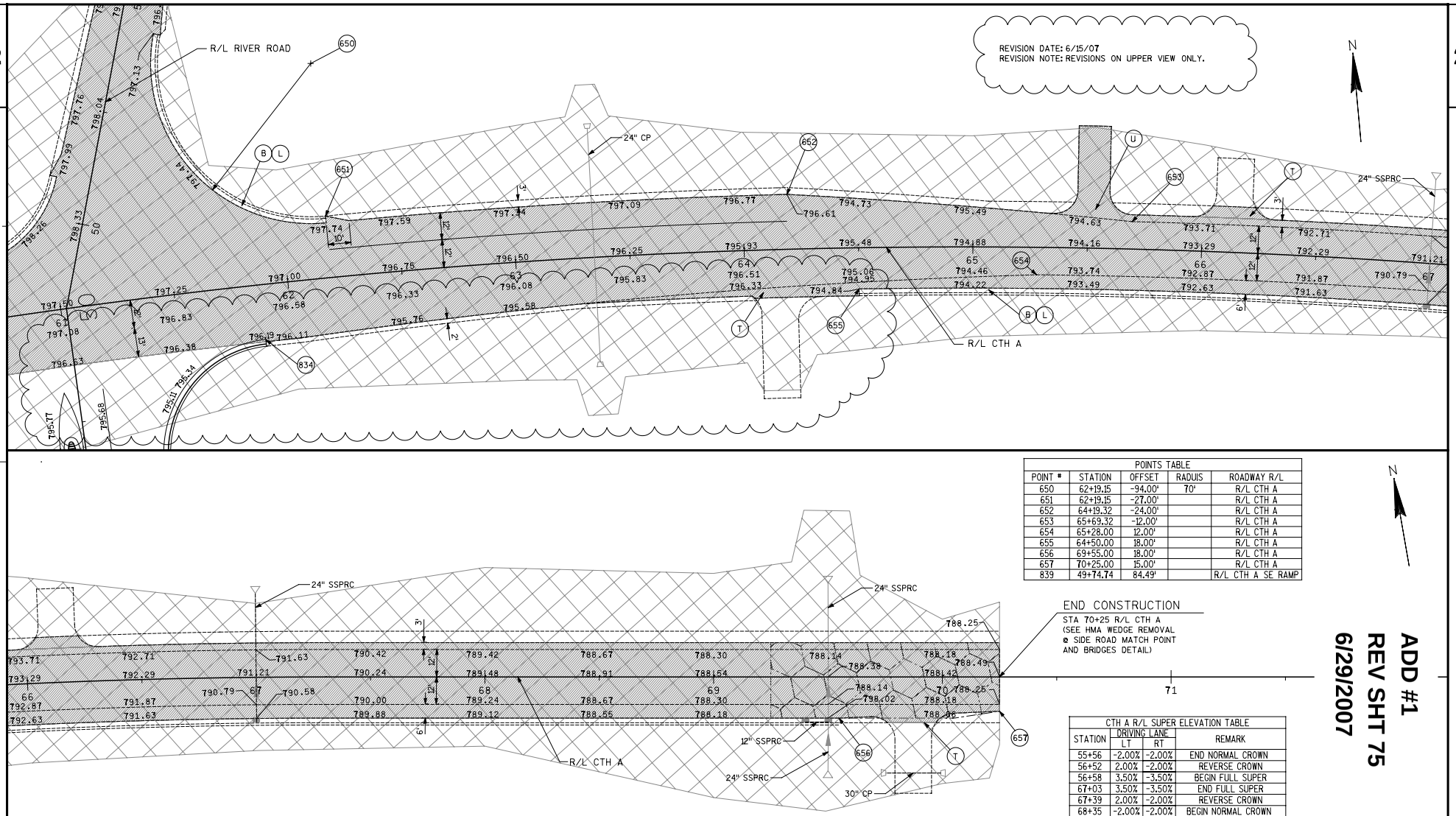
STA 61+02.51 R/L CTH A =
STA 50+00.00 R/L CTH A SE RAMP =
STA 49+62.51 R/L RIVER ROAD



PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	INTERSECTION/PAVING DETAILS: CTH A	SHEET 74	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\021367_pd.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

WISDOT/CADDS SHEET 42



POINTS TABLE				
POINT #	STATION	OFFSET	RADIUS	ROADWAY R/L
650	62+19.15	-94.00'	70'	R/L CTH A
651	62+19.15	-27.00'		R/L CTH A
652	64+19.32	-24.00'		R/L CTH A
653	65+69.32	-12.00'		R/L CTH A
654	65+28.00	12.00'		R/L CTH A
655	64+50.00	18.00'		R/L CTH A
656	69+55.00	18.00'		R/L CTH A
657	70+25.00	15.00'		R/L CTH A
839	49+74.74	84.49'		R/L CTH A SE RAMP

CTH A R/L SUPER ELEVATION TABLE			
STATION	DRIVING LANE LT	DRIVING LANE RT	REMARK
55+56	-2.00%	-2.00%	END NORMAL CROWN
56+52	2.00%	-2.00%	REVERSE CROWN
56+58	3.50%	-3.50%	BEGIN FULL SUPER
67+03	3.50%	-3.50%	END FULL SUPER
67+39	2.00%	-2.00%	REVERSE CROWN
68+35	-2.00%	-2.00%	BEGIN NORMAL CROWN

ADD #1
REV SHT 75
6/29/2007

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	INTERCHANGE / PAVING DETAIL: CTH A	SHEET 75	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\021345_pd10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

REVISION DATE: 6/15/07
REVISION NOTE: NW RAMP LT TURN LANE ELIMINATED.

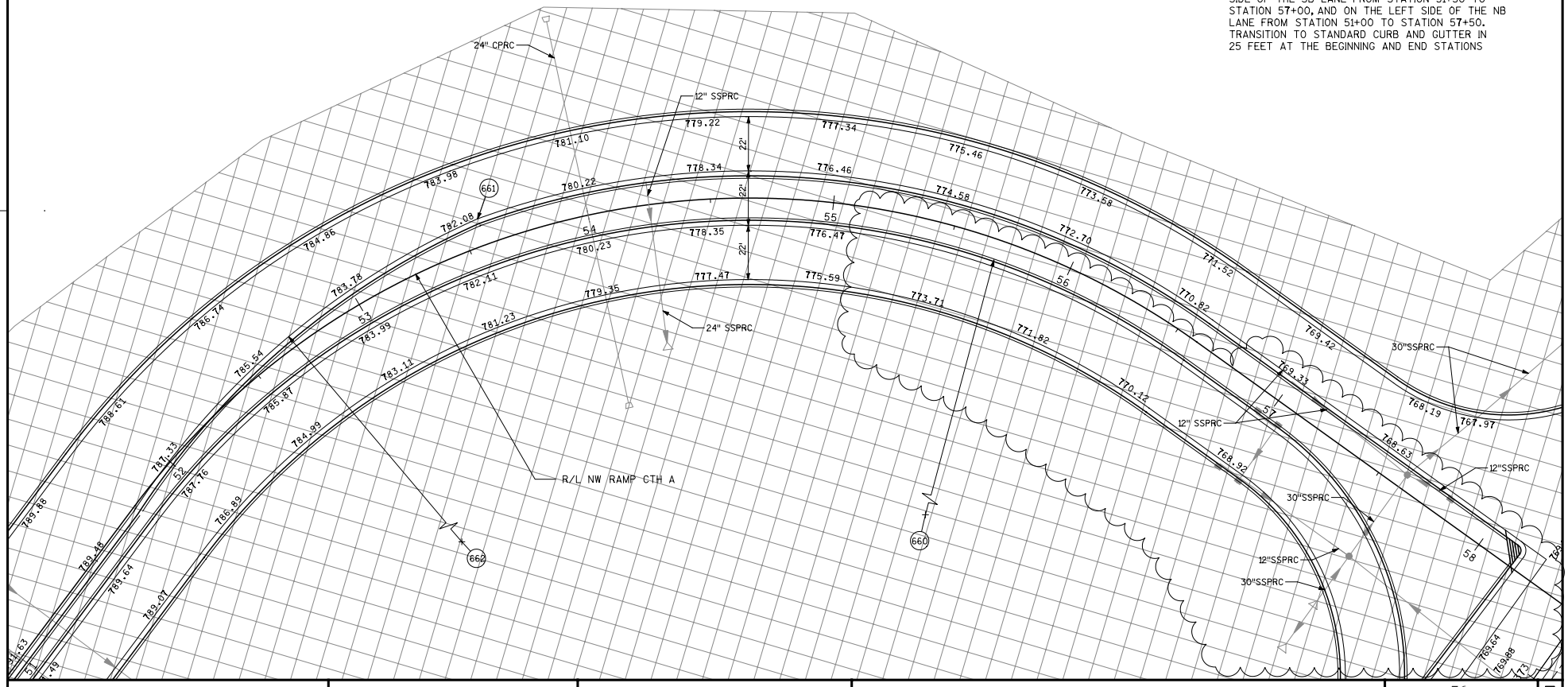
ADD #1
REV SHT 76
6/29/2007

CTH A NW RAMP EB SUPER ELEVATION TABLE		
STATION	DRIVING LANE	REMARK
50+92.00	-2.00%	END NORMAL CROWN
52+00.16	-4.00%	BEGIN FULL SUPER
56+18.81	-4.00%	END FULL SUPER
57+44(2)	-2.00%	BEGIN NORMAL CROWN

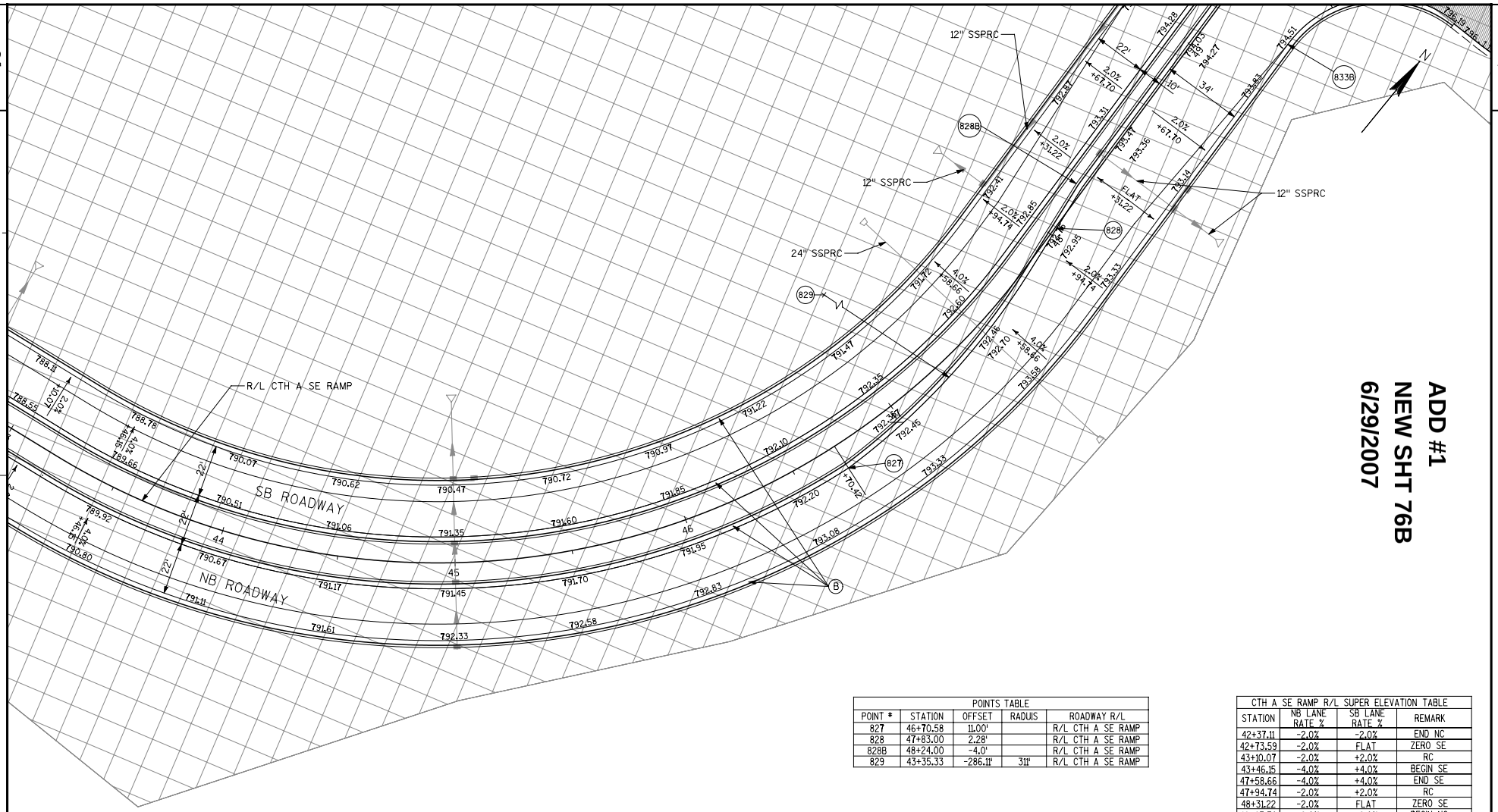
CTH A NW RAMP WB SUPER ELEVATION TABLE		
STATION	DRIVING LANE	REMARK
50+92.00	-2.00%	END NORMAL CROWN
52+01.84	4.00%	BEGIN FULL SUPER
56+51.19	4.00%	END FULL SUPER
57+44(2)	-2.00%	BEGIN NORMAL CROWN

POINTS TABLE				
POINT #	STATION	OFFSET	RADIUS	ROADWAY R/L
660	51+95.85	322.32'	322'	R/L CTH A NW RAMP
661	53+57.21	-11.00'		R/L CTH A NW RAMP
662	56+78.23	301.52'	300'	R/L CTH A NW RAMP

CONSTRUCT REJECT CURB AND GUTTER ON THE LEFT SIDE OF THE SB LANE FROM STATION 51+50 TO STATION 57+00, AND ON THE LEFT SIDE OF THE NB LANE FROM STATION 51+00 TO STATION 57+50. TRANSITION TO STANDARD CURB AND GUTTER IN 25 FEET AT THE BEGINNING AND END STATIONS



PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	INTERSECTION/PAVING DETAILS: CTH A NW RAMP	SHEET 76	E



ADD #1
NEW SHT 76B
6/29/2007

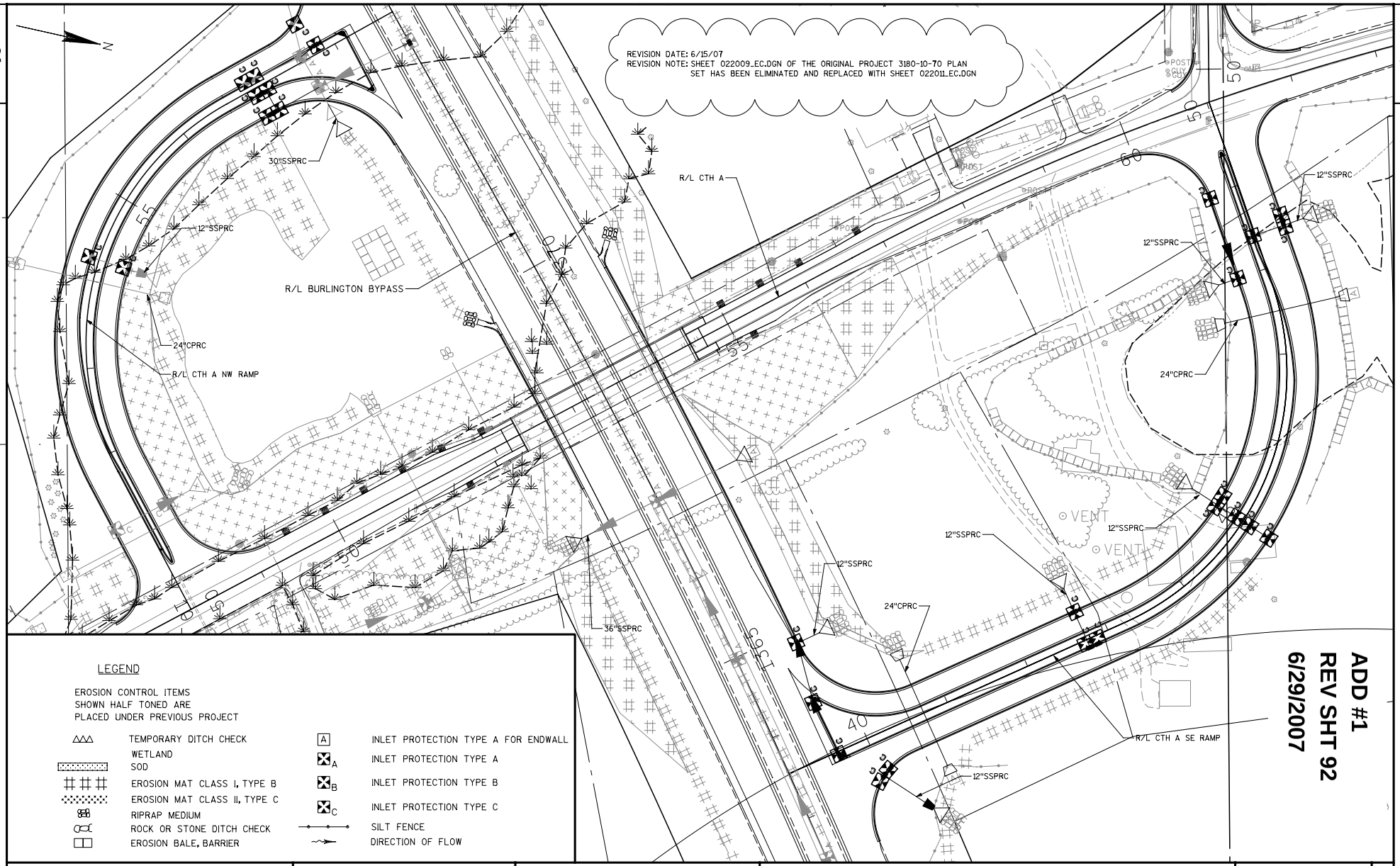
POINTS TABLE				
POINT #	STATION	OFFSET	RADIUS	ROADWAY R/L
827	46+70.58	11.00'		R/L CTH A SE RAMP
828	47+83.00	2.28'		R/L CTH A SE RAMP
828B	48+24.00	-4.0'		R/L CTH A SE RAMP
829	43+35.33	-286.11'	311'	R/L CTH A SE RAMP

CTH A SE RAMP R/L SUPER ELEVATION TABLE			
STATION	NB LANE RATE %	SB LANE RATE %	REMARK
42+37.11	-2.0%	-2.0%	END NC
42+73.59	-2.0%	FLAT	ZERO SE
43+10.07	-2.0%	+2.0%	RC
43+46.15	-4.0%	+4.0%	BEGIN SE
47+58.66	-4.0%	+4.0%	END SE
47+94.74	-2.0%	+2.0%	RC
48+31.22	-2.0%	FLAT	ZERO SE
48+67.70	-2.0%	-2.0%	BEGIN NC

REVISION DATE: 6/15/07
REVISION NOTE: THIS IS A NEW SHEET REQUIRED FOR CONSTRUCTION OF CTH A SE RAMP

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	INTERSECTION/PAVING DETAILS: CTH A SE RAMP	SHEET 76B	E

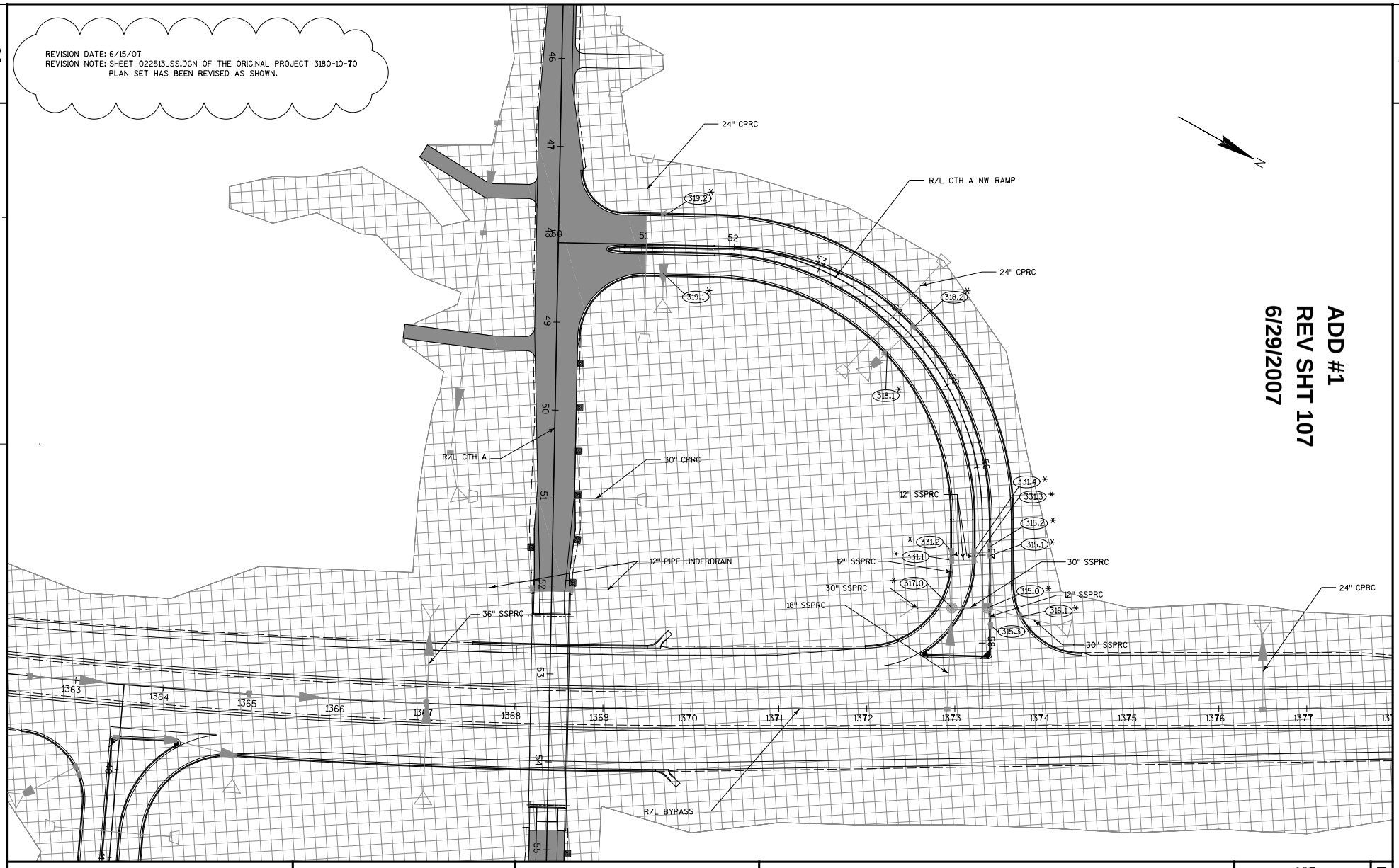
FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\021365_pd.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : _____ PLOT SCALE : -



ADD #1
REV SHT 92
6/29/2007

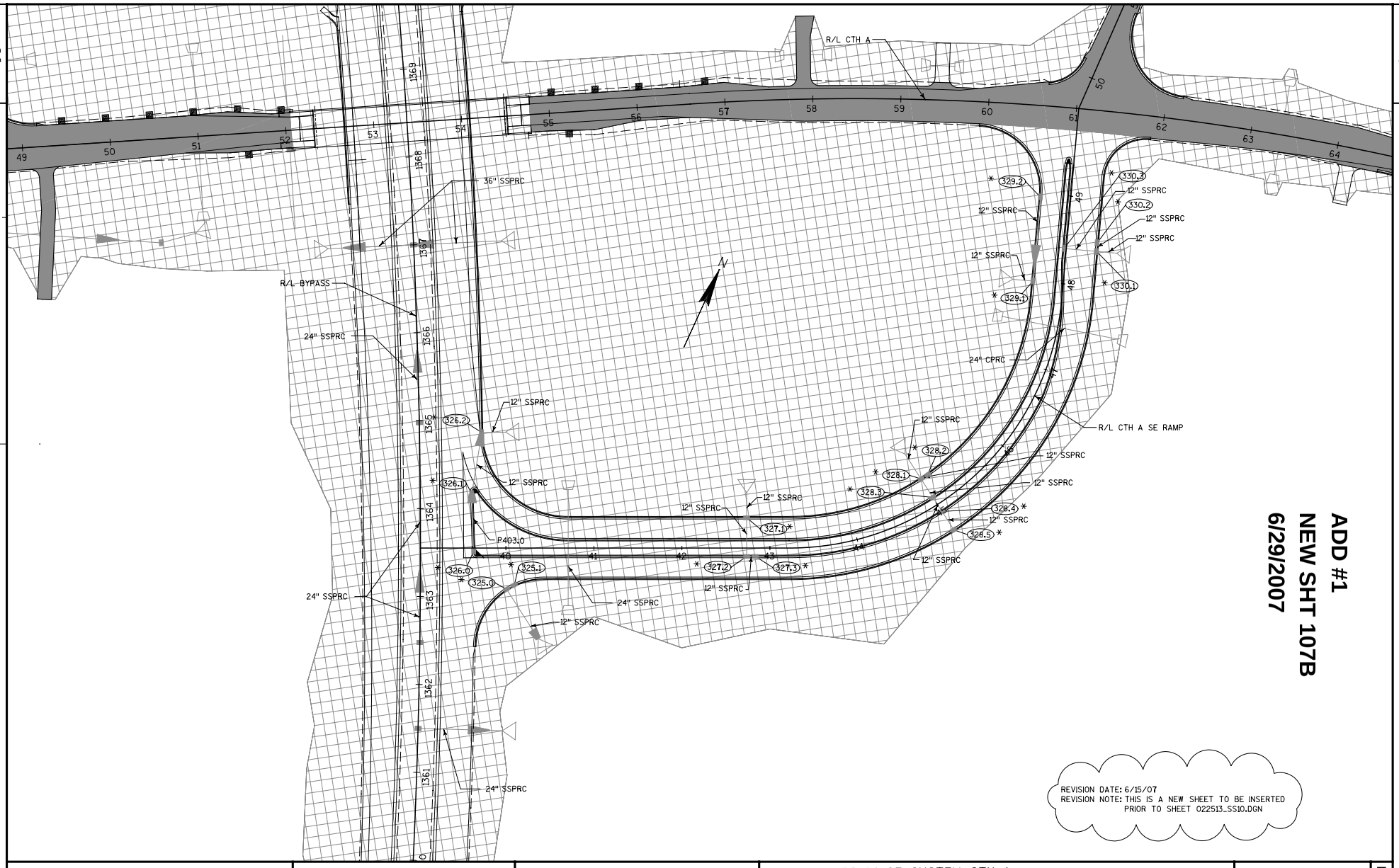
PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	EROSION CONTROL: CTH A / BYPASS	SHEET 92	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\022011_ec.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -



PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PROPOSED DRAINAGE SYSTEM: CTH A	SHEET 107	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\022513_ss10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : _____ PLOT SCALE : -

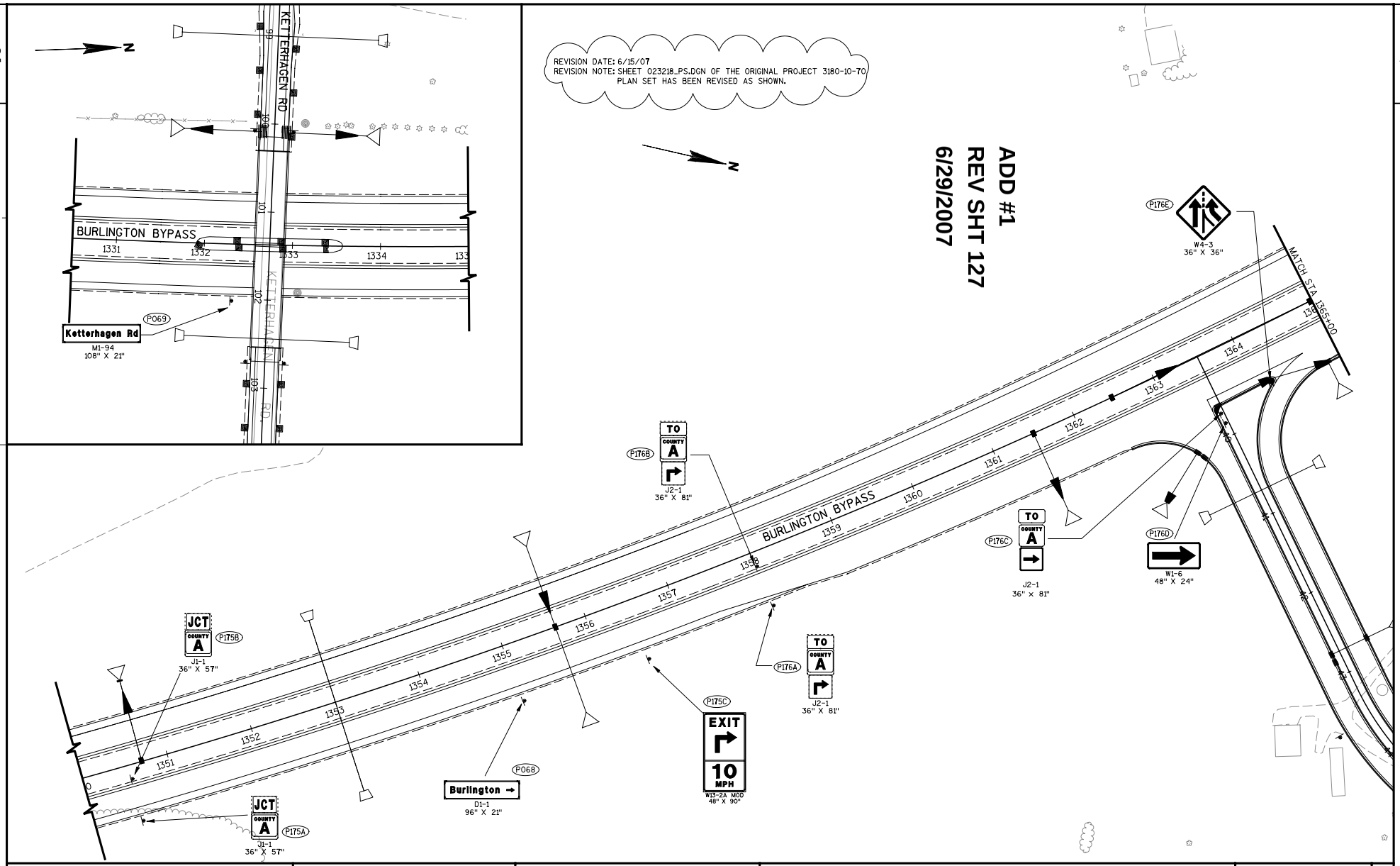


ADD #1
NEW SHT 107B
6/29/2007

REVISION DATE: 6/15/07
REVISION NOTE: THIS IS A NEW SHEET TO BE INSERTED PRIOR TO SHEET 022513_SS10.DGN

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PROPOSED DRAINAGE SYSTEM: CTH A	SHEET 107B	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\022515_ss.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : _____ PLOT SCALE : -

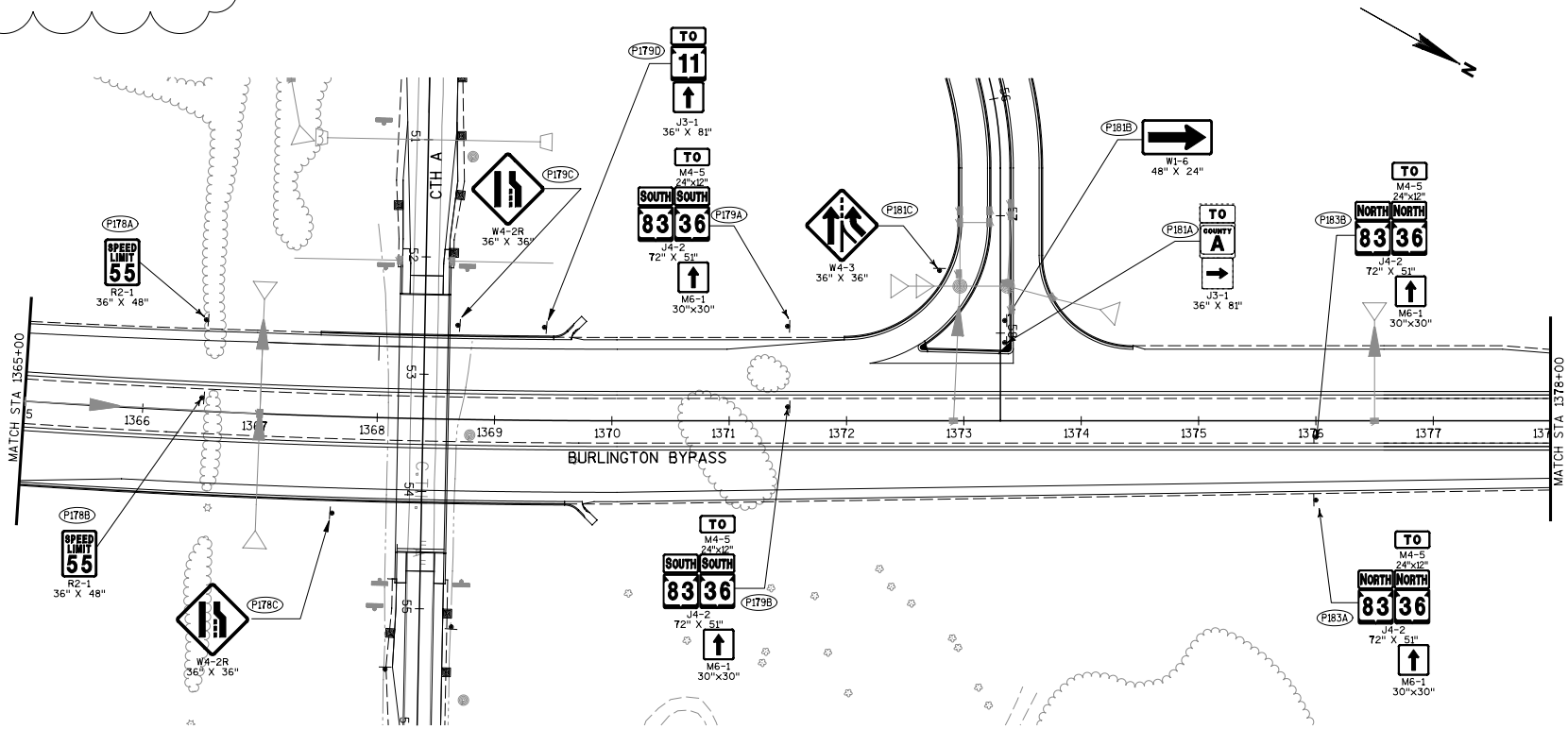


PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PERMANENT SIGNING	SHEET 127	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\023218_ps10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

2

REVISION DATE: 6/15/07
REVISION NOTE: SHEET 023220_PS.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAS BEEN REVISED AS SHOWN.

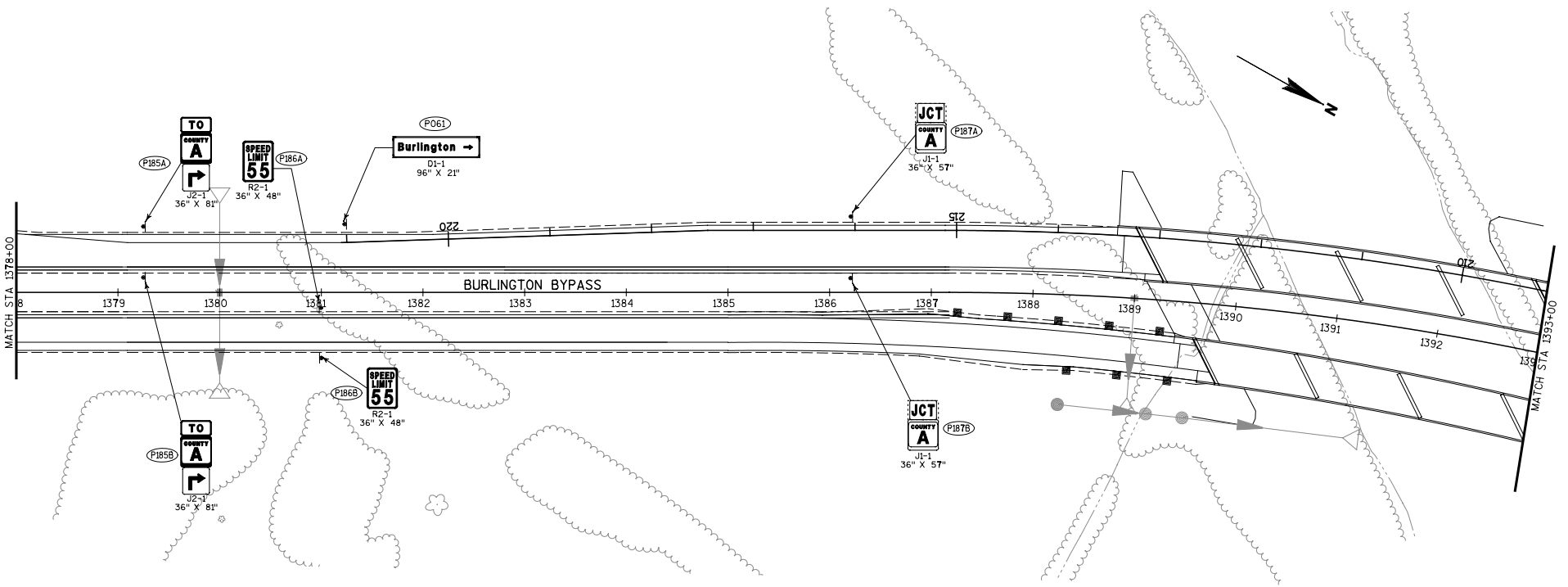


ADD #1
REV SHT 129
6/29/2007

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PERMANENT SIGNING	SHEET 129	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\023220_ps10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

REVISION DATE: 6/15/07
REVISION NOTE: SHEETS 023221_PS.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAS BEEN REVISED AS SHOWN.



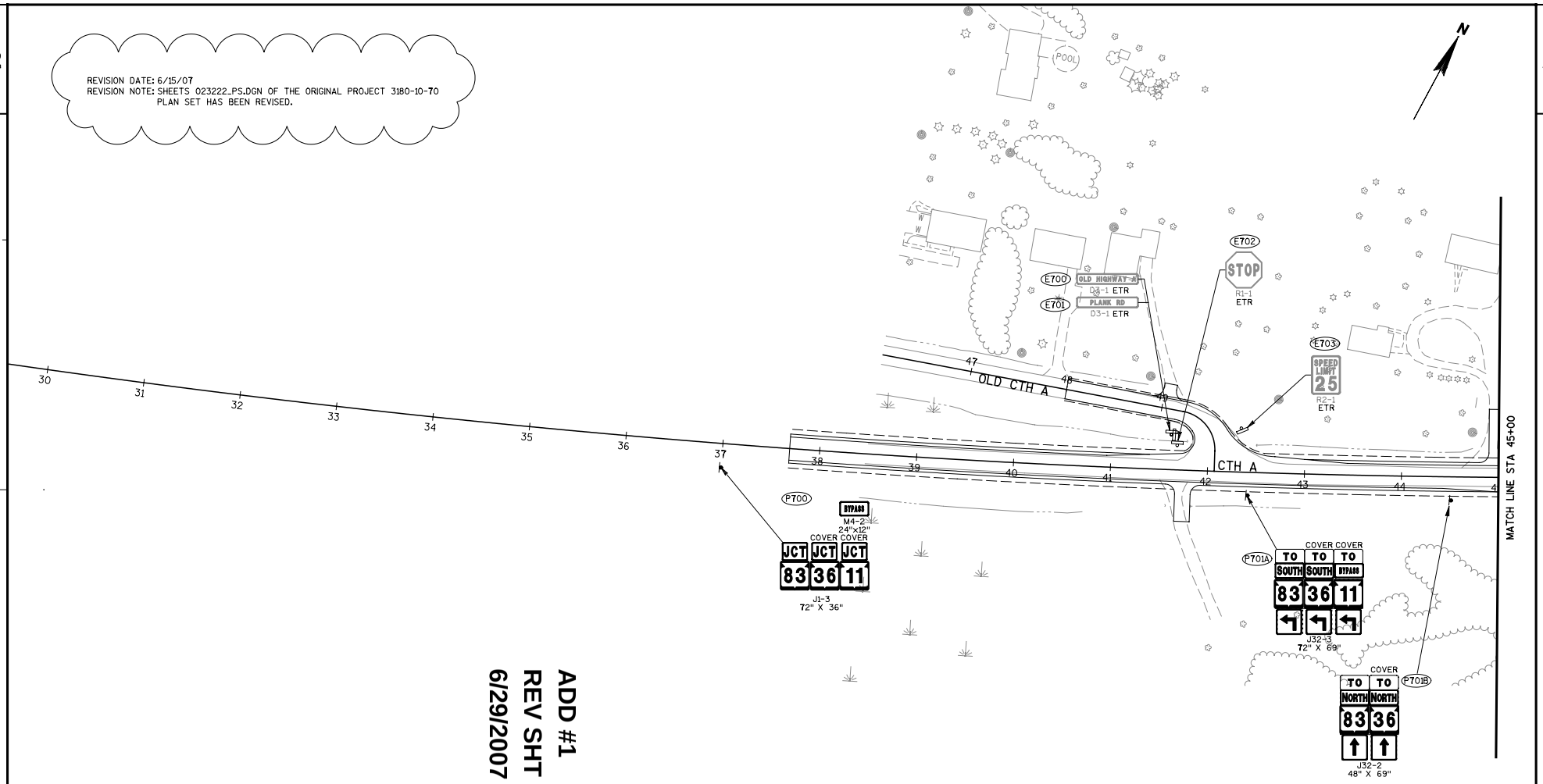
ADD #1
REV SHT 130
6/29/2007

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PERMANENT SIGNING	SHEET 130	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\023221_ps10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

2

REVISION DATE: 6/15/07
REVISION NOTE: SHEETS 023222_PS.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAS BEEN REVISED.



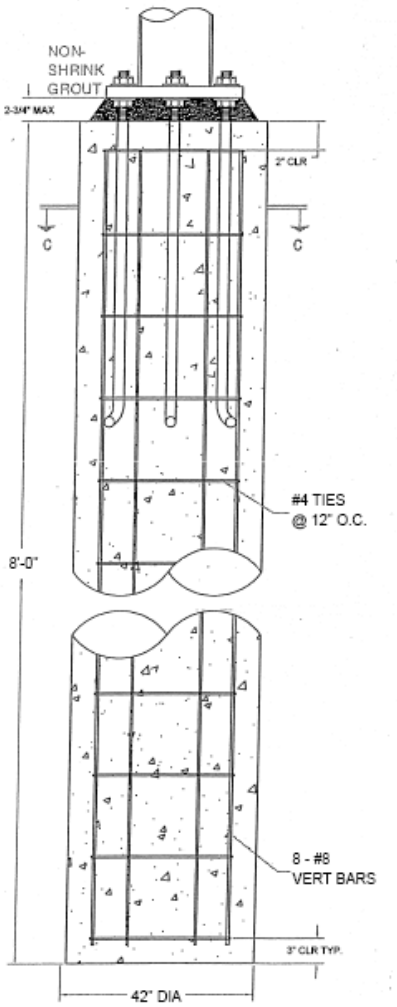
ADD #1
REV SHT 131
6/29/2007

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PERMANENT SIGNING	SHEET 131	E

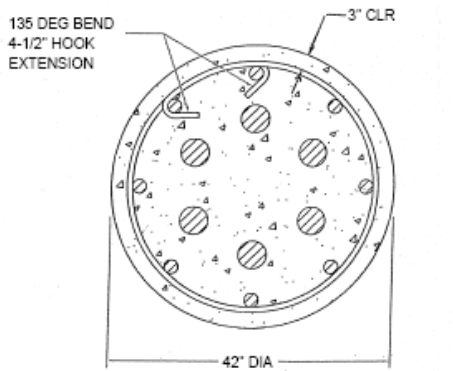
FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\023222_ps10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

WISDOT/CADDS SHEET 42

2



FOUNDATION



SECTION C - C

NOTES:

FOUNDATION

1. ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS. CONCRETE SHALL BE AIR ENTRAINED (6 +- 1.5%). CONCRETE SHALL HAVE MAXIMUM WATER/CEMENT RATIO OF 0.4. SLUMP OF CONCRETE SHALL BE LIMITED IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONRETE", ACI 318, LATEST EDITION. FOUNDATION INSTALLATION SHALL BE IN ACCORDANCE WITH ACI 336, "STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF DRILLED PIERS", LATEST EDITION.

2. ALL CONCRETE REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315, LATEST EDITION, UNLESS DETAILED OTHERWISE ON THE DRAWING.

3. MINIMUM CONCRETE COVER FOR REINFORCING SHALL BE:
   A. CONCRETE CAST AGAINST AND EXPOSED TO EARTH: 3 " MIN.
   B. EXPOSED TO EARTH BUT PLACED IN FORMS: 2" MIN.
   C. SURFACES EXPOSED TO WEATHER: 1.5" MIN.

4. SEE POLE DRAWING FOR ANCHOR BOLT QUANTITY, SIZE, LENGTH, BOLT CIRCLE & ORIENTATION.

5. CITCOTIVE SOIL DENSITY = 120 PCF, SOIL IS NON-COHESIVE (SAND) WITH PHI = 32 DEGREES. WATER TABLE IS ASSUMED TO BE BELOW BOTTOM OF FOUNDATION.

6. FOUNDATION WAS DESIGNED USING ASSUMED GROUND SLOPE NOT EXCEEDING 7H:1V. CONTRACTOR SHALL CONTACT ENGINEER FOR ANY DEVIATION THEREFROM PRIOR TO CONSTRUCTION.

7. FOUNDATION WAS DESIGNED USING THE FOLLOWING SERVICE LOADS:

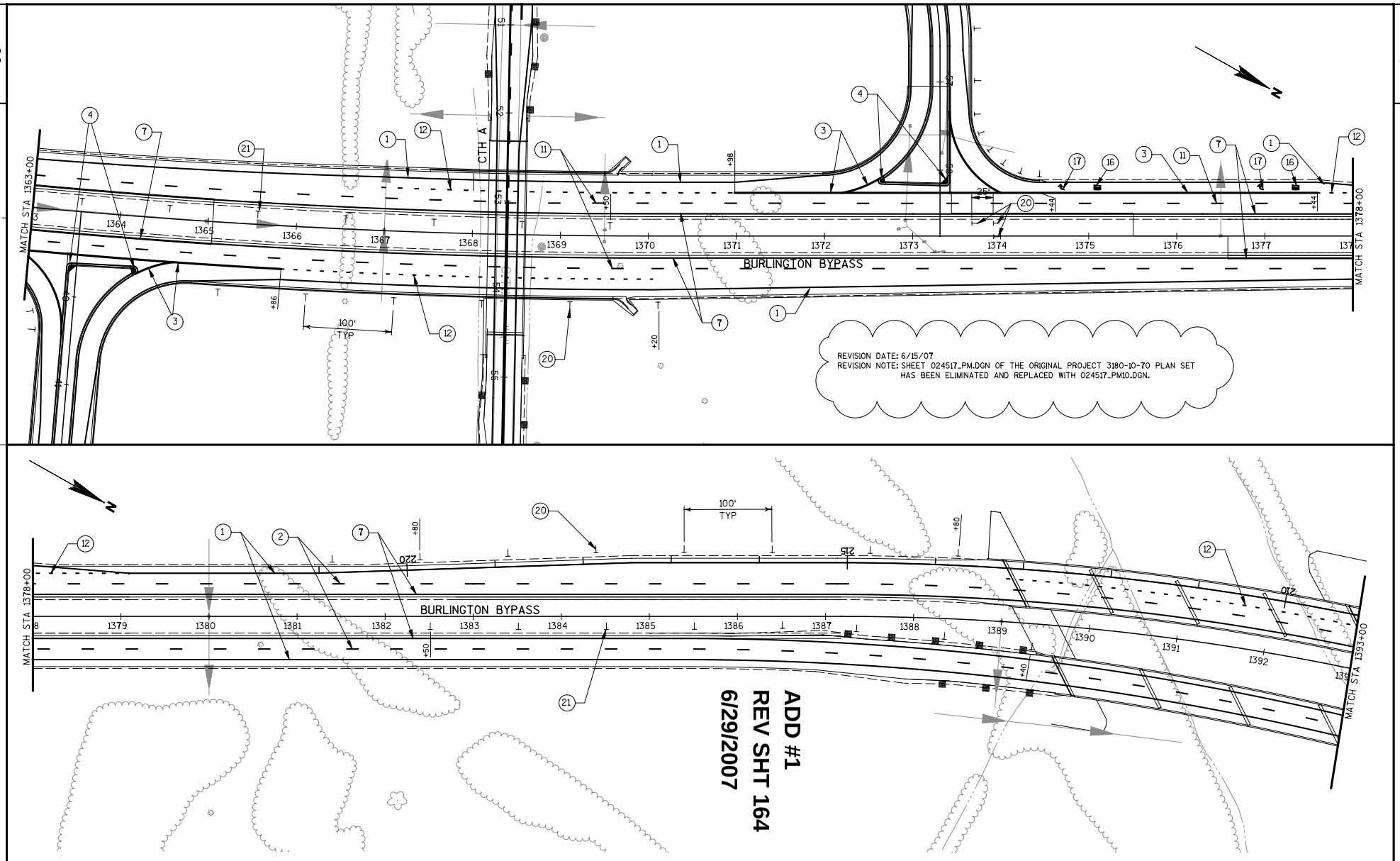
MOMENT (MX):	44838	FT-LBS
MOMENT (MY):	24834	FT-LBS
TORSION:	22363	FT-LBS
SHEAR	1410	LBS
AXIAL:	3361	LBS

ADD #1
NEW SHT 139A
6/29/2007

CONCRETE BASE TYPE 9 MONOTUBE

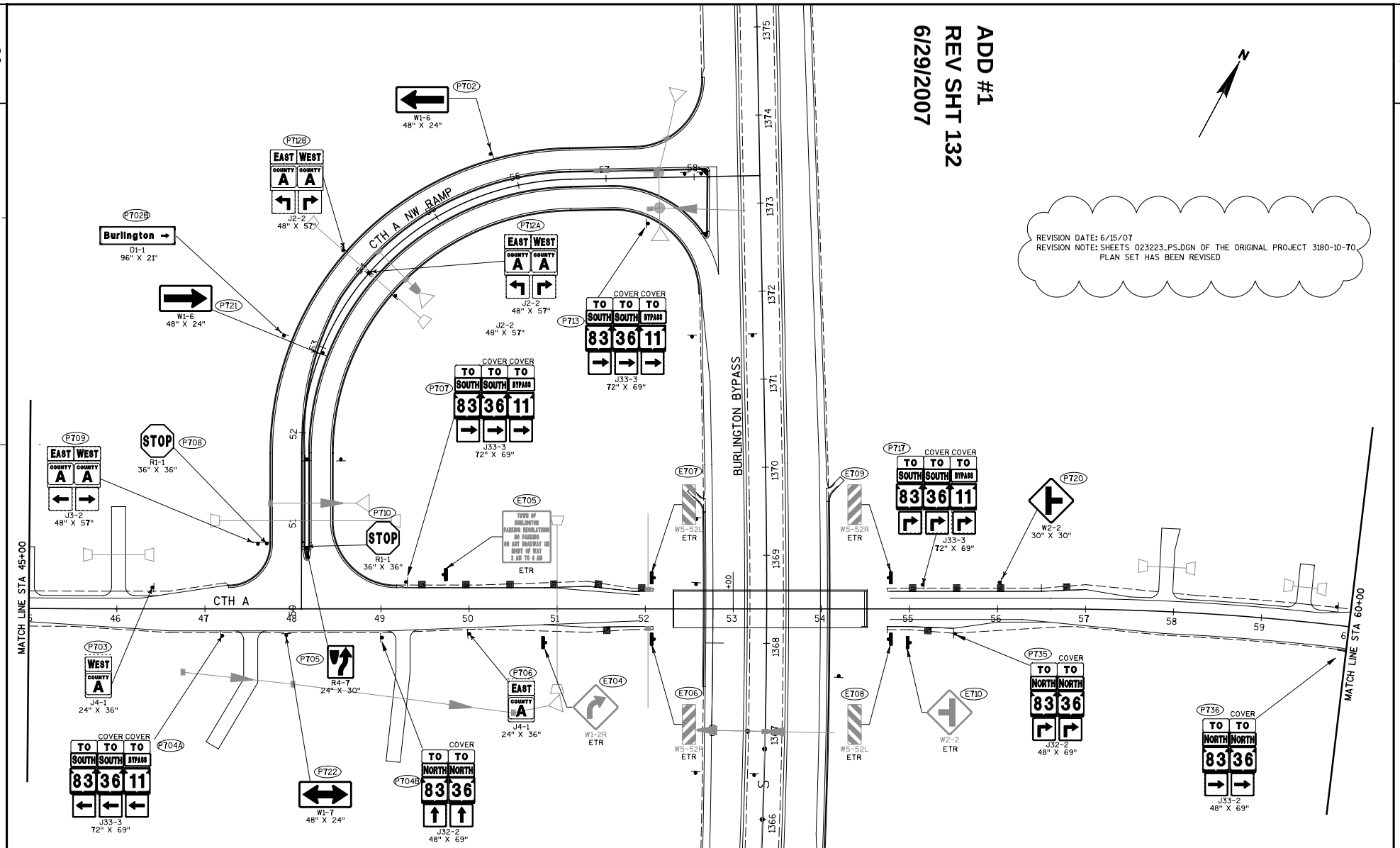
PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	TRAFFIC SIGNAL BASE DETAIL	SHEET: 139A	E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1



PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PAVEMENT MARKING	SHEET 164	E

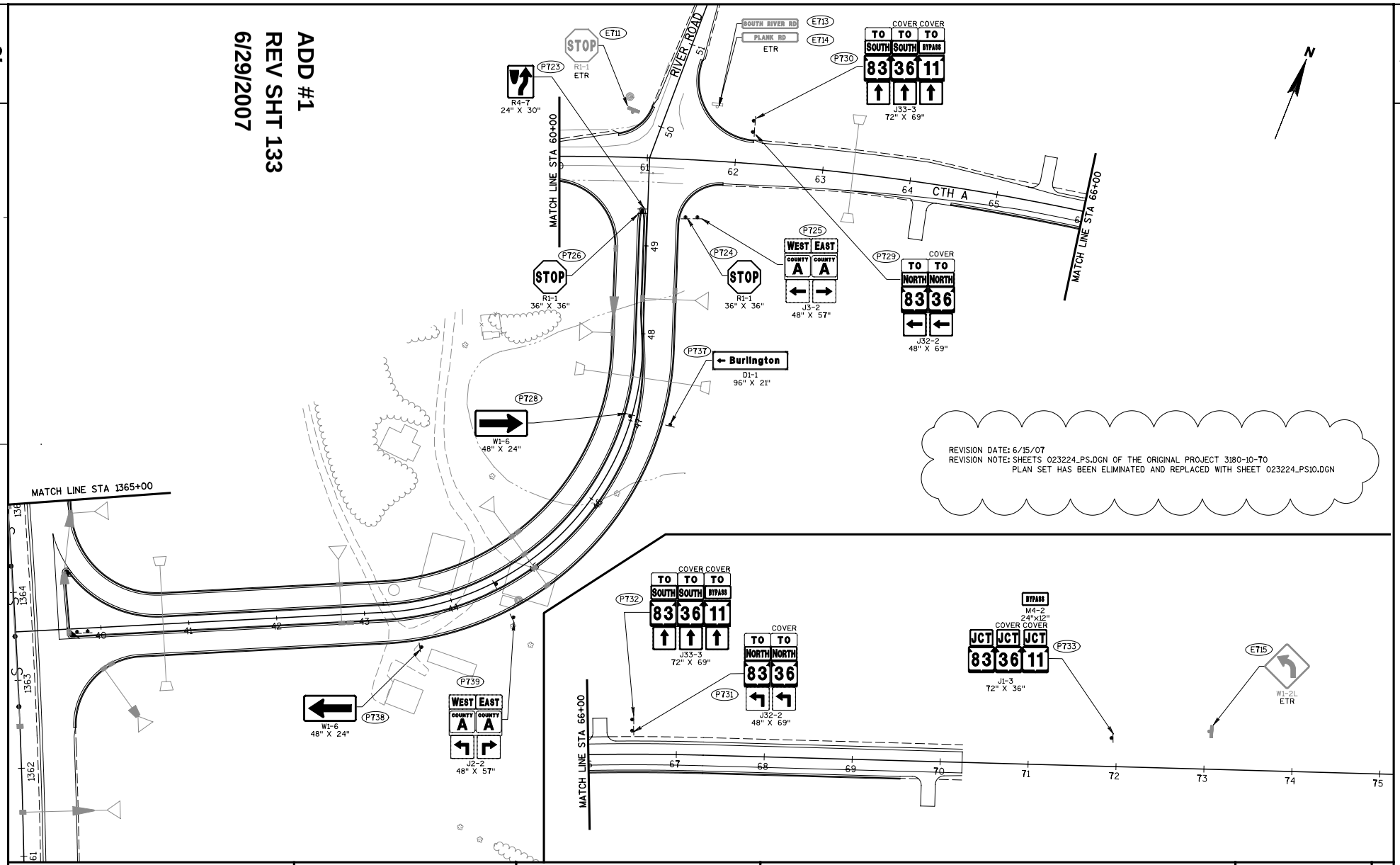
FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\024517_pm10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -



PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PERMANENT SIGNING	SHEET 132	E

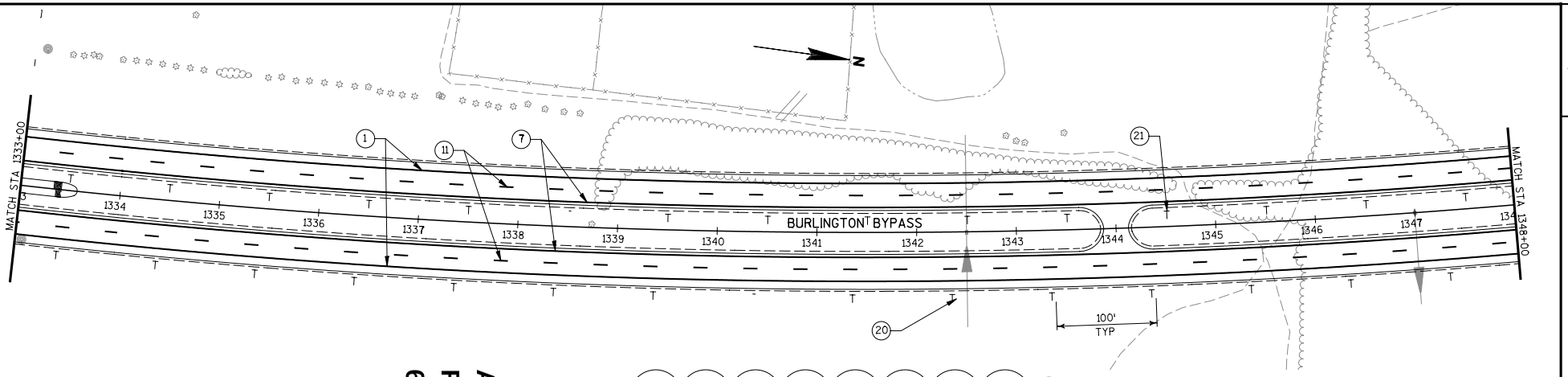
FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\023223_ps10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

ADD #1
REV SHT 133
6/29/2007



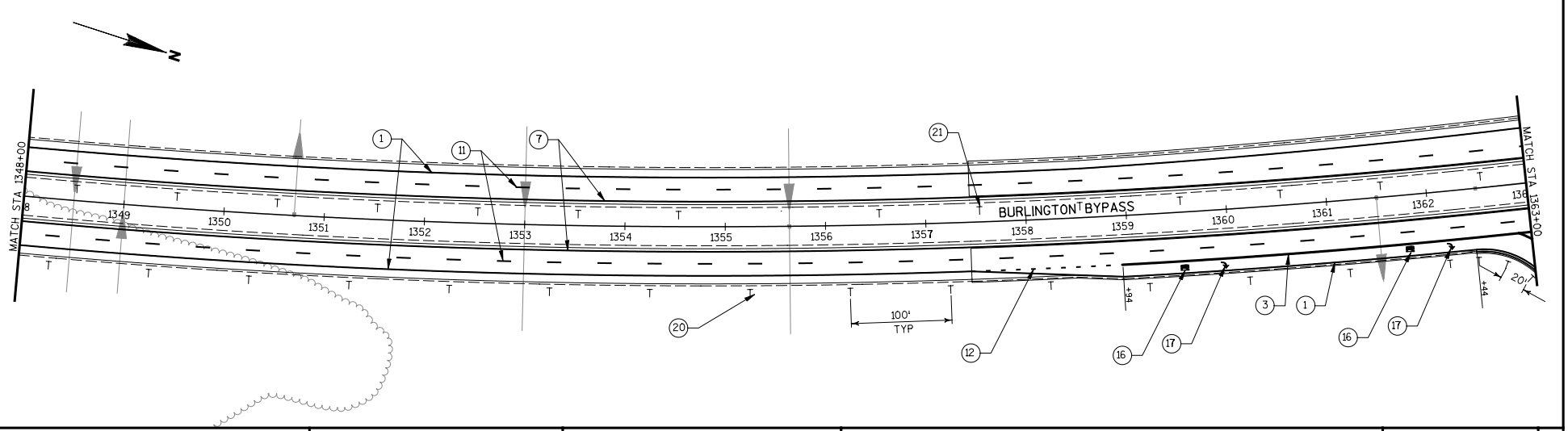
PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PERMANENT SIGNING	SHEET 133	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\023228_ps.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -



ADD #1
REV SHT 163
6/29/2007

REVISION DATE: 6/15/07
REVISION NOTE: SHEET 024516_PM.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAS BEEN ELIMINATED AND REPLACED WITH 024516_PM10.DGN.

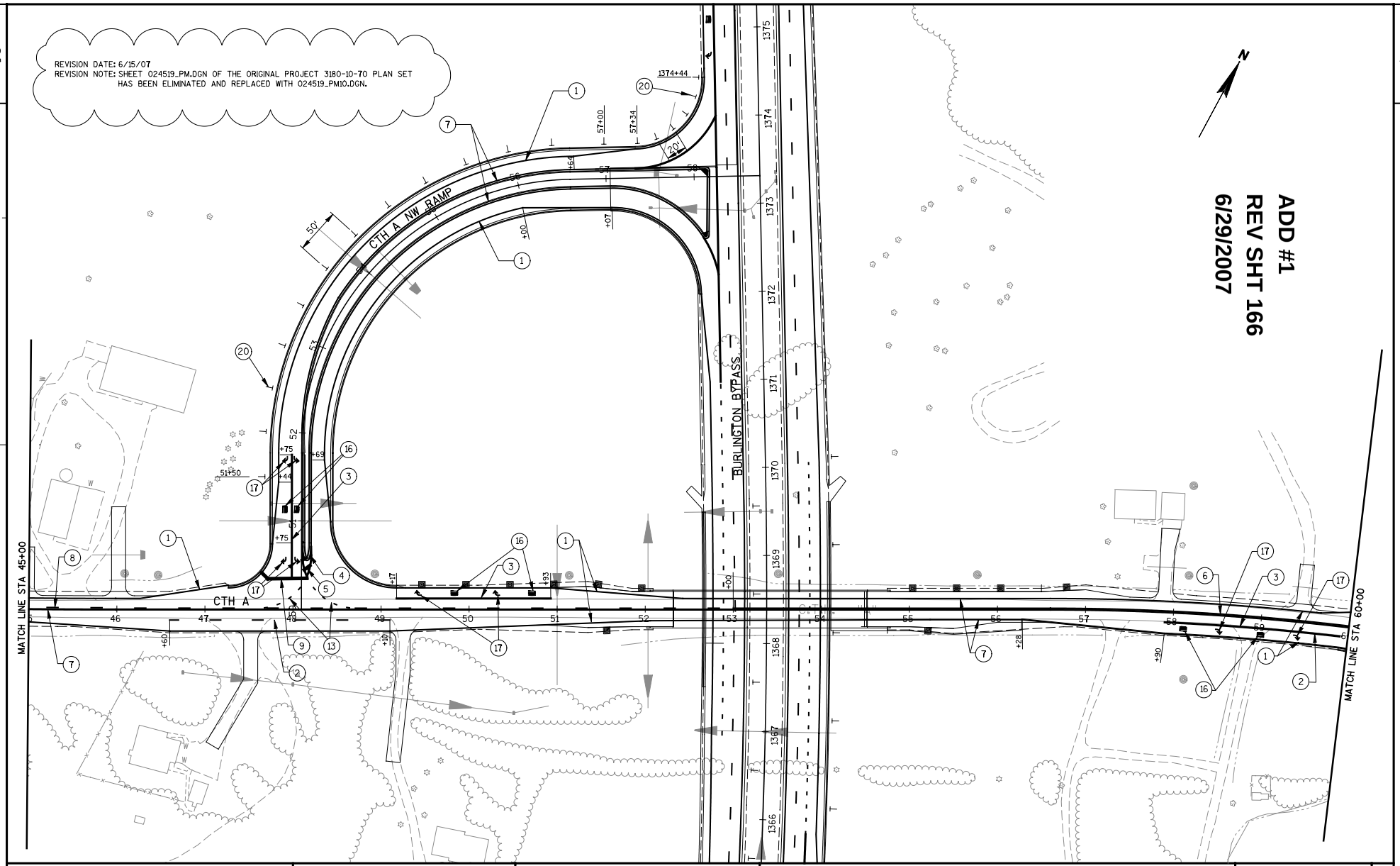


PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PAVEMENT MARKING	SHEET 163	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\024516_pm10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

REVISION DATE: 6/15/07
REVISION NOTE: SHEET 024519_PM.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAS BEEN ELIMINATED AND REPLACED WITH 024519_PM10.DGN.

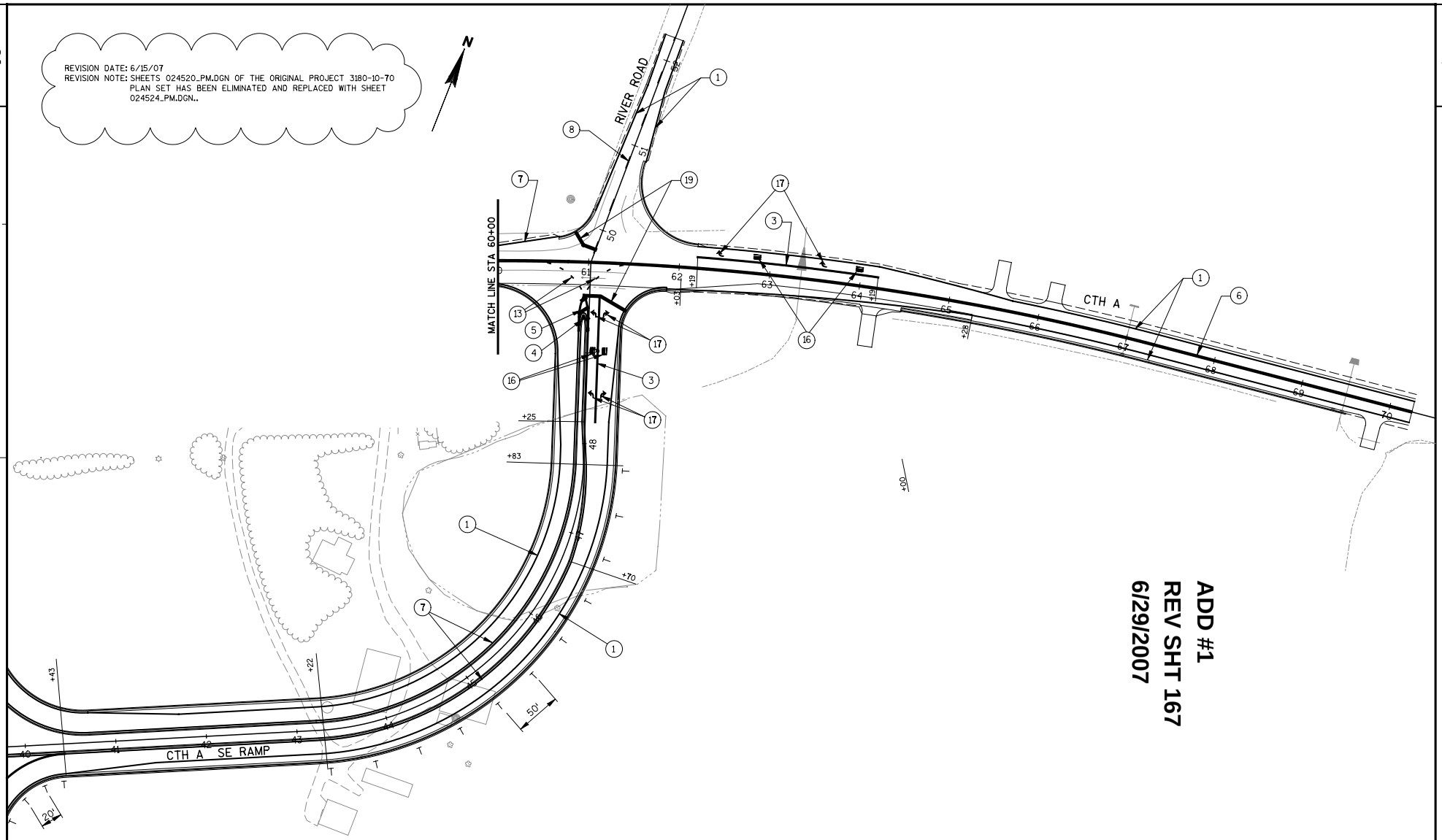
ADD #1
REV SHT 166
6/29/2007



PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PAVEMENT MARKING	SHEET 166	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\024519_pm10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

REVISION DATE: 6/15/07
REVISION NOTE: SHEETS 024520_PM.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAS BEEN ELIMINATED AND REPLACED WITH SHEET 024524_PM.DGN..



ADD #1
REV SHT 167
6/29/2007

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PAVEMENT MARKING	SHEET 167	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\024524_pm.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

WISDOT/CADDS SHEET 42

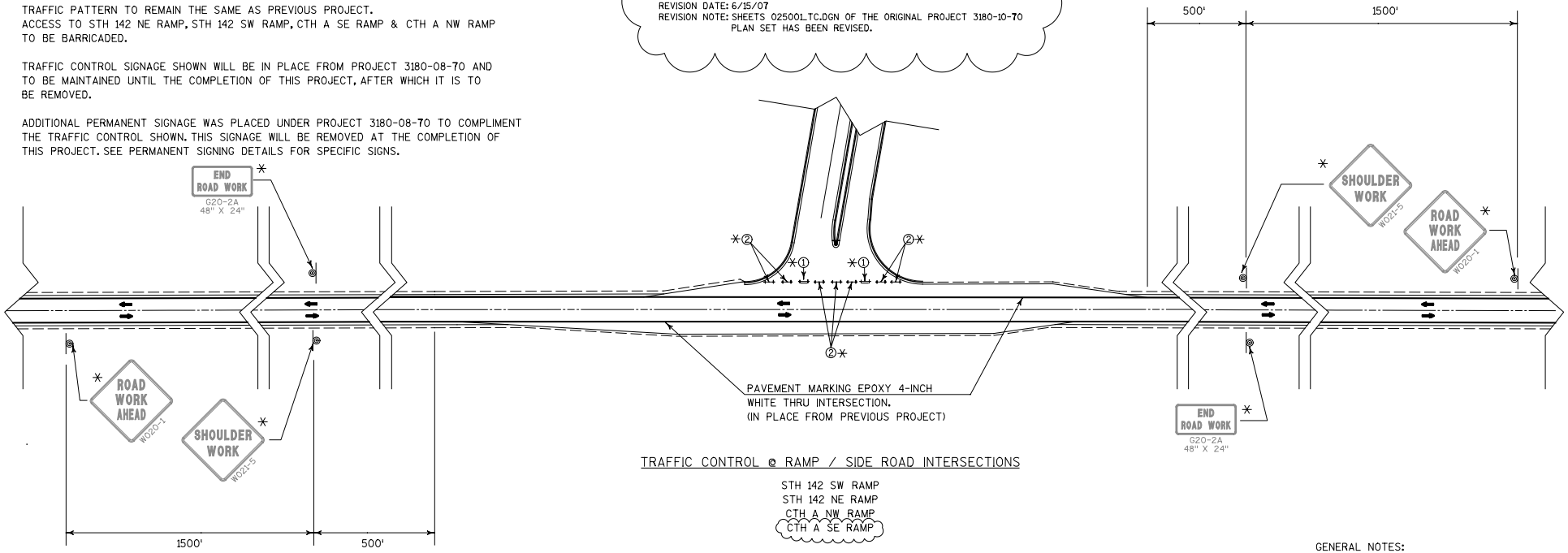
WORK ZONE:
NO CONSTRUCTION ON STH 142 & CTH A.

TRAFFIC CONTROL:
TRAFFIC PATTERN TO REMAIN THE SAME AS PREVIOUS PROJECT.
ACCESS TO STH 142 NE RAMP, STH 142 SW RAMP, CTH A SE RAMP & CTH A NW RAMP TO BE BARRICADED.

TRAFFIC CONTROL SIGNAGE SHOWN WILL BE IN PLACE FROM PROJECT 3180-08-70 AND TO BE MAINTAINED UNTIL THE COMPLETION OF THIS PROJECT, AFTER WHICH IT IS TO BE REMOVED.

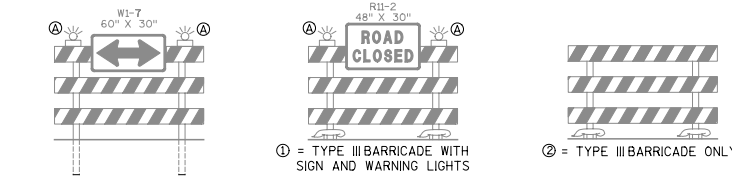
ADDITIONAL PERMANENT SIGNAGE WAS PLACED UNDER PROJECT 3180-08-70 TO COMPLIMENT THE TRAFFIC CONTROL SHOWN. THIS SIGNAGE WILL BE REMOVED AT THE COMPLETION OF THIS PROJECT. SEE PERMANENT SIGNING DETAILS FOR SPECIFIC SIGNS.

REVISION DATE: 6/15/07
REVISION NOTE: SHEETS 025001_TC.DGN OF THE ORIGINAL PROJECT 3180-10-70 PLAN SET HAS BEEN REVISED.



TRAFFIC CONTROL @ RAMP / SIDE ROAD INTERSECTIONS

STH 142 SW RAMP
STH 142 NE RAMP
CTH A NW RAMP
CTH A SE RAMP



③= TYPE III PERMANENT BARRICADE WITH SIGN AND WARNING LIGHTS

① = TYPE III BARRICADE WITH SIGN AND WARNING LIGHTS

② = TYPE III BARRICADE ONLY

④= TYPE III PERMANENT BARRICADE ONLY

LEGEND:

= TYPE III BARRICADE (8-FOOT EQUIVALENT) WITH / WITHOUT SIGN
= WARNING LIGHT, TYPE A (LOW INTENSITY FLASHING)
= POST MOUNTED SIGN
= SIGN ON PORTABLE SUPPORT
= FLEXIBLE TUBULAR MARKERS @ 25-FOOT SPACING
= DIRECTION OF TRAFFIC FLOW
= DRUM WITH WARNING LIGHT TYPE C
= DRUM
= CONCRETE BARRIER TEMPORARY PRECAST
= ARROW BOARD
MB = MESSAGE BOARD
CC = CRASH CUSHION
= PLACED UNDER PREVIOUS PROJECT

GENERAL NOTES:

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

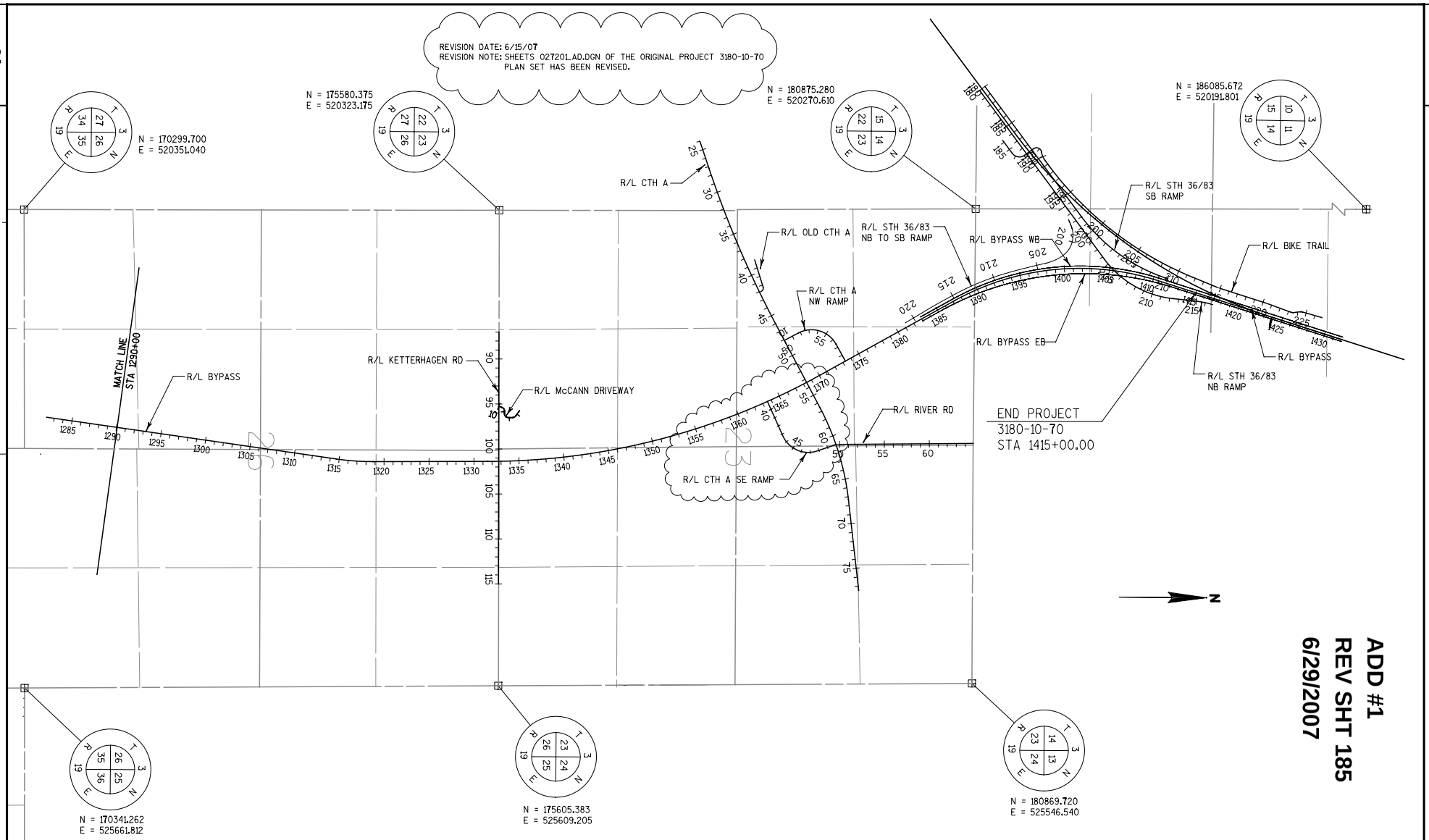
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVELLED LANE WHEN WORK IS NOT IN PROGRESS.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ADD #1
REV SHT 172
6/29/2007

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	TRAFFIC CONTROL: STAGE 1 & 2 @ STH 142, CTH A	SHEET 172	E



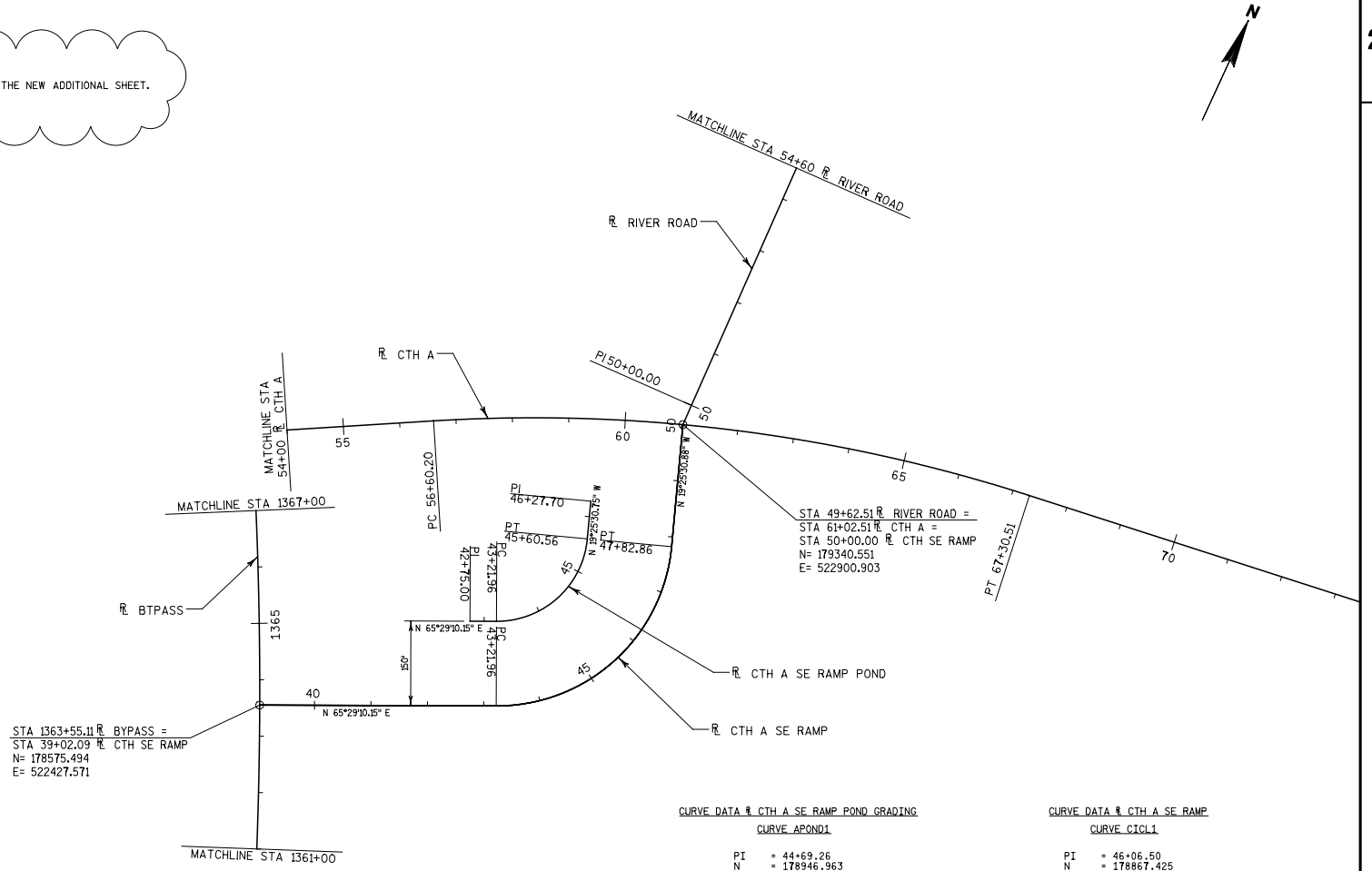
ADD #1
REV SHT 185
6/29/2007

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	ALIGNMENT OVERVIEW: STH 11 - STH 36/83 RAMPS	SHEET 185	E

FILE NAME : s:\DOT\DOT_SE\04081\DESIGN\DGN\PLAN\Amendment Updates\upd-10\10-RSA-UPDATES-PLAN-SET\027201_ad10.dgn PLOT DATE : 6/13/2007 PLOT BY : wally_w PLOT NAME : PLOT SCALE : -

REVISION DATE: 6/15/07
REVISION NOTE: SHEETS 027214_AD.DGN IS THE NEW ADDITIONAL SHEET.

ADD #1
NEW SHT 185B
6/29/2007



CURVE DATA ℄ CTH A SE RAMP POND GRADING

CURVE APOND1

PI = 44+69.26
N = 178946.963
E = 522880.647
DELTA = -84°54'40.89"
D = 35°35'14.79"
TAN = 147.30'
L = 238.60'
R = 161.0'
PC = 43+21.96
PT = 45+60.56
DB = N 65°29'10.15" E
DA = N 19°25'30.75" W
SE MAX = NA
SE TRANS (T) = NA
LENGTH OF RUNOFF (L) = NA

CURVE DATA ℄ CTH A SE RAMP

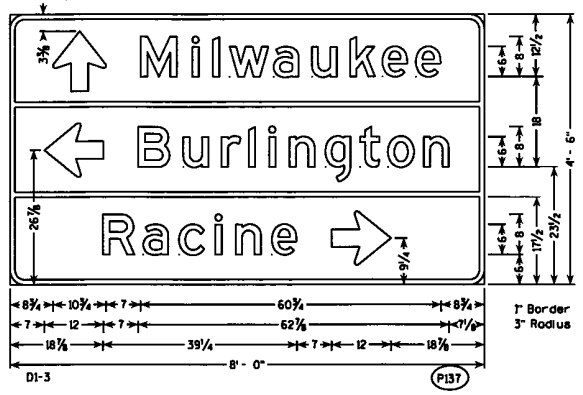
CURVE CICL1

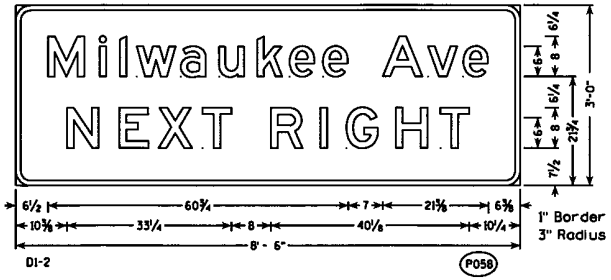
PI = 46+06.50
N = 178867.425
E = 523067.750
DELTA = -84°54'41.03"
D = 18°25'23.09"
TAN = 284.54'
L = 460.90'
R = 311.0'
PC = 43+21.96
PT = 47+82.86
DB = N 65°29'10.15" E
DA = N 19°25'30.88" W
SE MAX = 3.50%
SE TRANS (T) = 132'
LENGTH OF RUNOFF (L) = 84'

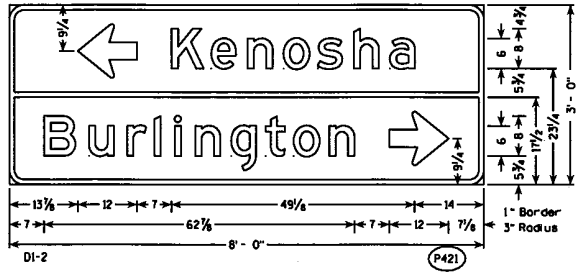
PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	ALIGNMENT DIAGRAM	SHEET 185B	E

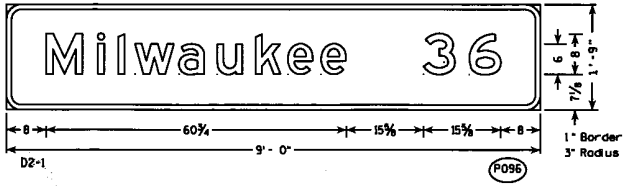
ADD #1, REV SHT 382, 6/29/2007

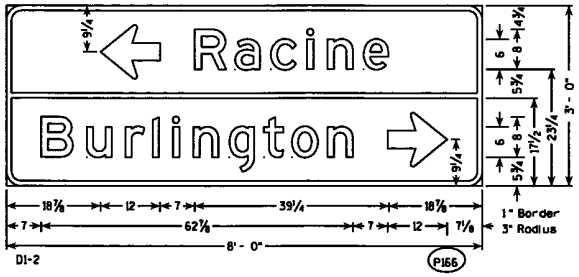
7

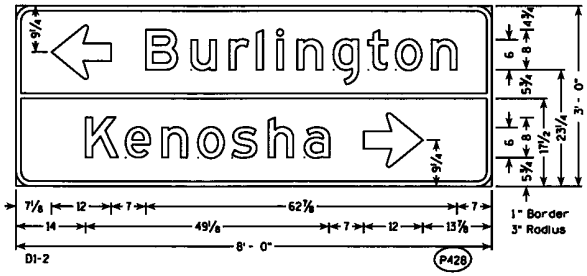


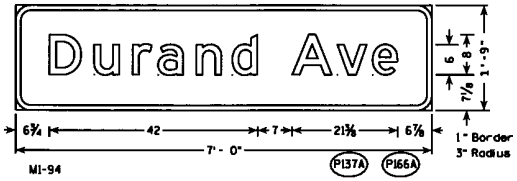


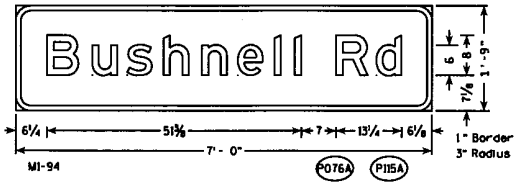


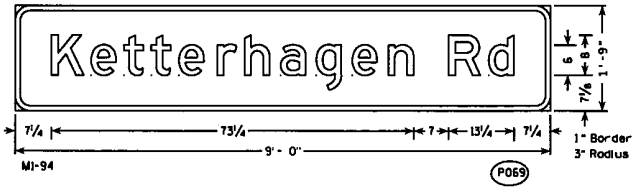








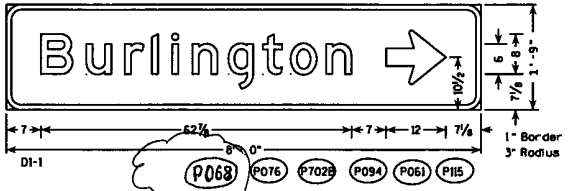


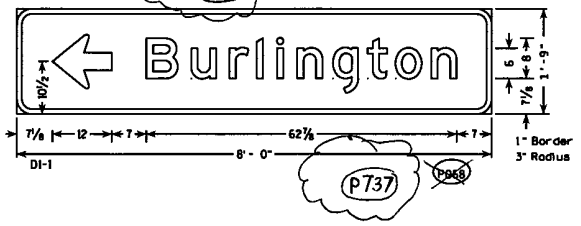


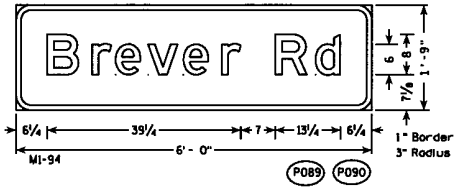
NOTES

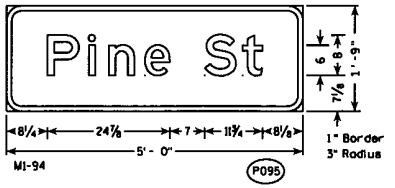
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E

Revision Date: 06/15/07





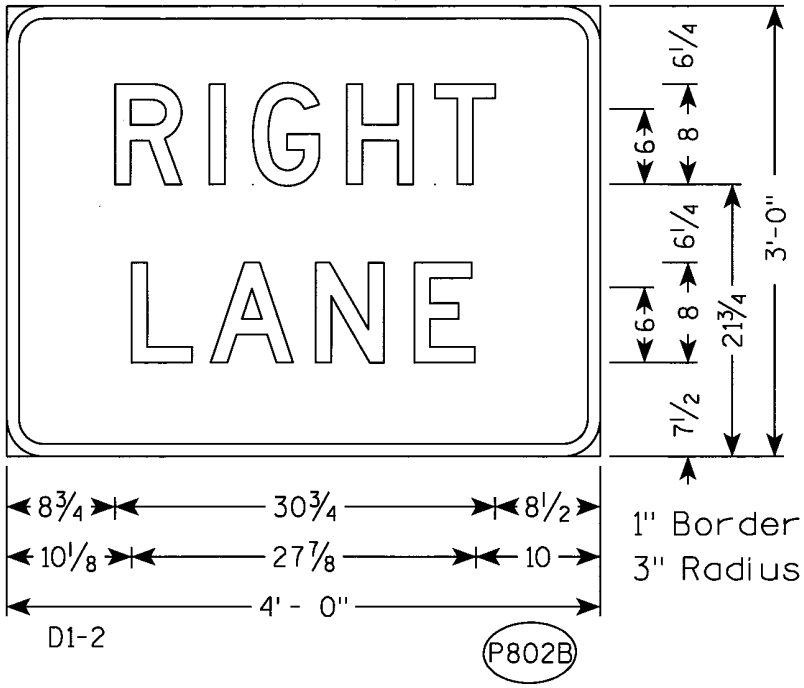


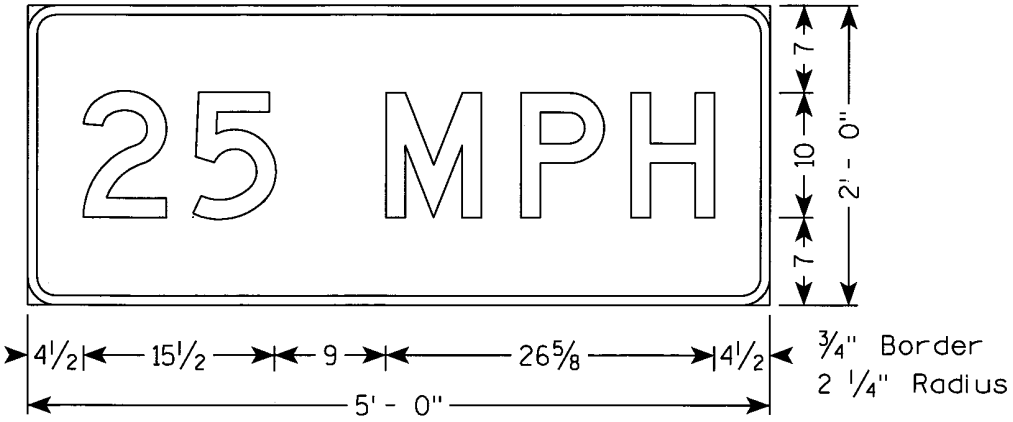


7

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PERMANENT SIGNING	SHEET NO: 382	E

FILE NAME : C:\Users\Projects\tr_d2\2511d407.dgn PLOT DATE : 20-APR-2007 11:03 PLOT BY : DITJPH PLOT NAME : PLOT SCALE : 24.984375:1.000000 WISDOT/CADDS SHEET 42



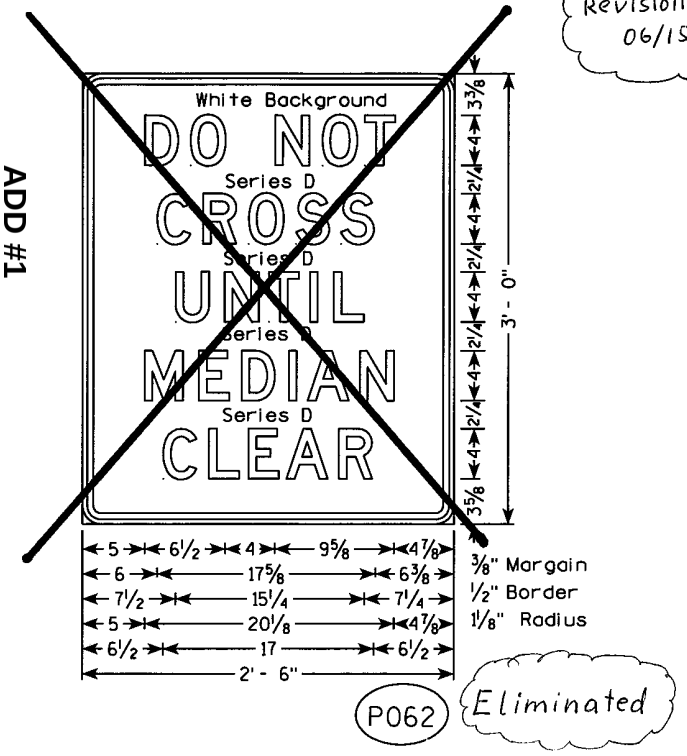


ADD #1
REV SHT 383
6/29/2007

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow except as noted
   Message - Black
3. Message Series - D

Revision Date : 06/15/07



Eliminated

7

7

PROJECT NO: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	PERMANENT SIGNING	SHEET NO: 383	E

* = DENOTES ADDITIONAL QUANTITIES CAN BE FOUND ELSEWHERE.

AGGREGATE ITEMS

ROADWAY	LOCATION	301.0100.S* QMP BASE AGGREGATE TON	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120* BASE AGGREGATE DENSE 1-1/4-INCH TON	311.0110 BREAKER RUN TON	623.0200 DUST CONTROL SURFACE TREATMENT SY	624.0100 WATER MGAL
BYPASS MAINLINE	STA 1123+04.94 TO B-51-93 EB	3975	486	3490			
	STA 1123+04.94 TO B-51-94 WB	5533	448	5086			
	STRUCT. B-51-93 TO 1184+00 EB	20481	6263	14219			
	STRUCT. B-51-94 TO 1184+00 WB	20806	6217	14590			
	STA 1184+00 TO STA 1277+67 EB	36424	11587	24837			
	STA 1277+67 TO EOTL STH 11 EB	3	3				
	STA 1184+00 TO STA 1277+86 WB	35538	11582	23956			
	STA 1277+86 TO EOTL STH 11 WB						
	STH 11 INTERSECTION						
	EOTL STH 11 TO STA 1280+59 EB						
	STA 1280+59 TO STA 1226+00 EB	17229	5445	11784			
	EOTL STH 11 TO STA 1280+10 WB	3	3				
	STA 1280+10 TO STA 1226+00 WB	17846	5350	12497			
	STA 1226+00 TO STA 1383+00 EB	22346	6892	15454			
	STA 1226+00 TO STA 1383+00 WB	22448	7065	15383			
	STA 1383+00 TO STRUCT. B-51-102	2797	858	1940			
	STA 1383+00 TO STRUCT. B-51-103	2570	766	1805			
	STRUCT. B-51-102 TO STA 1415+00	7430	1494	5937			
	STRUCT. B-51-103 TO STA 1408+00	7181	2115	5067			
	UNDISTIBUTED				1000	229239	2226
	SUBTOTAL	222610	66574	156045	1000	229239	2226
STH 83	STA 340+80 TO EOTL BYPASS	7828	679	7149			
	EOTL BYPASS TO STA 369+34.51	10605		10605			
	STH 83 DRIVES	287	23	264			
	UNDISTIBUTED					18587	187
	SUBTOTAL	18720	702	18018		18587	187
BREVER ROAD	STA 97+00 TO STRUCT. B-51-95	2141	560	1582			
	STRUCT. B-51-95 TO STA 118+00	3562	1206	2357			
	BREVER RD DRIVES	33	17	17			
	UNDISTIBUTED					6199	57
	SUBTOTAL	5736	1783	3956		6199	57
STH 142	STA 101+08 TO STRUCT. B-51-92	106	106				
	STRUCT. B-51-92 TO STA 143+39	157	157				
	STH 142 DRIVES	28	28				
STH 142 NE RAMP	EOTL STH 142 TO EOTL BYPASS	5796		5796			
STH 142 SW RAMP	EOTL BYPASS TO EOTL STH 142	6035		6035			
MT TOM ROAD	EOTL STH 142 TO STA 104+25	28	28				
	UNDISTIBUTED					29532	122
	SUBTOTAL	12150	319	11831		29532	122
STH 11	STA 115+57.26 TO STA 126+94.78	211	211				
	STA 129+70.24 TO STA 168+39.91	532	532				
	STH 11 DRIVES	325	325				
	UNDISTIBUTED					20769	11
	SUBTOTAL	1068	1068			20769	11

CONTINUED ON NEXT SHEET

NOTE: REVISED ITEMS SHOWN AS HIGHLIGHTED TEXT

REVISION DATE: 5/25/07

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

ADD #1
REV SHT 207
6/29/2007

* = DENOTES ADDITIONAL QUANTITIES CAN BE FOUND ELSEWHERE.

CONTINUED
AGGREGATE ITEMS

ROADWAY	LOCATION	301.0100.S* QMP BASE AGGREGATE TON	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120* BASE AGGREGATE DENSE 1-1/4-INCH TON	311.0110 BREAKER RUN TON	623.0200 DUST CONTROL SURFACE TREATMENT SY	624.0100 WATER MGAL
KETTERHAGEN ROAD	STA 91+00 TO B-51-101	2584	594	1991			
	B-51-101 TO STA 110+75	2413	666	1747			
	MCCANN DRIVE	557	176	382			
	KETTERHAGEN DRIVES	43	18	26			
	UNDISTIBUTED					6311	56
	SUBTOTAL	5597	1454	4146		6311	56
CTH A	STA 37+69 TO STRUCT. B-51-98	132	132				
	STRUCT. B-51-98 TO STA 70+25	110	110				
	CTH A DRIVES	234	234				
CTH A NW RAMP	EOTL CTH A TO STA 51+00						
CTH A NW RAMP	STA 51+00 TO EOTL BYPASS	2751		2751			
CTH A SE RAMP	EOTL CTH A TO EOTL BYPASS	3926		3926			
OLD CTH A	STA 48+00 TO EOTL CTH A	1	1				
	OLD CTH A DRIVES	103	103				
RIVER ROAD	EOTL CTH A TO STA 52+25	11	11				
	UNDISTIBUTED					25741	73
	SUBTOTAL	7268	591	6677		25741	73
STH 36/83 NB TO SB RAMP	STA 196+00 TO STA 203+68	1956	481	1475			
	UNDISTIBUTED					2055	20
	SUBTOTAL	1956	481	1475		2055	20
	TOTALS	**275105**	**72972**	**202148**	**1000**	**338434**	**2751**

CONCRETE DRIVEWAY 7-INCH

STATION		LOCATION	416.0170 CONCRETE DRIVEWAY 7-INCH SY
350+09	LT	STH 83	26
355+75	RT	STH 83	23
356+37	RT	STH 83	19
357+49	RT	STH 83	16
362+06	LT	STH 83	35
364+41	LT	STH 83	23
368+25	LT	STH 83	9
91+39	LT	KETTERHAGEN	18
93+00	LT	KETTERHAGEN	16
93+50	RT	KETTERHAGEN	18
TOTAL			203

CONCRETE PAVEMENT APPROACH SLAB, PAVEMENT, AND SURFACE DRAINS

STATION	OFFSET	LOCATION	301.0100* QMP BASE AGGREGATE TON	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	415.0070 CONCRETE PAVEMENT 7-INCH SY	415.2000.S INCENTIVE STRENGHT CONCRETE PAVEMENT DOL	415.3000.S QMP CONCRETE PAVEMENT DAYS	416.0050 CONCRETE PAVEMENT APPROACH SLAB SY	416.1010 CONCRETE SURFACE DRAINS CY
103+79.63 - 104+05.93	LT	BREVER ROAD	9	9					17
103+79.63 - 104+05.93	RT	BREVER ROAD	9	9					17
103+90.17 - 104+05.93	C/L	BREVER ROAD	20	20				38	
106+18.33 - 106+34.00	LT	BREVER ROAD	5	5	10	100.00	0.5		
106+18.33 - 106+34.00	RT	BREVER ROAD	5	5	10	100.00	0.5		
106+18.33 - 106+34.00	C/L	BREVER ROAD	20	20				38	
100+04.16 - 100+30.37	LT	KETTERHAGEN ROAD	7	7					15
100+04.16 - 100+30.37	RT	KETTERHAGEN ROAD	7	7					15
100+14.70 - 100+30.37	C/L	KETTERHAGEN ROAD	20	20				38	
102+54.21 - 102+69.88	LT	KETTERHAGEN ROAD	4	4	9	100.00	0.5		
102+54.21 - 102+69.88	RT	KETTERHAGEN ROAD	4	4	9	100.00	0.5		
102+54.21 - 102+69.88	CL	KETTERHAGEN ROAD	20	20				38	
TOTAL			130	130	38	400.00	2.0	152	64

ADD #1
REV SHT 208
6/29/2007

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

PAVEMENT ITEMS

ADD #1
REV SHT 209
6/29/2007

ROADWAY	LOCATION	455.0115 ASPHALTIC MATERIAL PG64-22 TON	455.0120 ASPHALTIC MATERIAL PG64-28 TON	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	460.1103 HMA PAVEMENT TYPE E-3 TON	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	460.2500.S QMP HMA PAVEMENT NUCLEAR DENSITY TON	460.3000 QMP HMA MIXURE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
BYPASS MAINLINE	STA 1123+04.94 TO B-51-93 EB	54	24	165		1231	$788	1231	1231	
	STA 1123+04.94 TO B-51-94 WB	88	36	269		1952	$1,249	1952	1952	
	STRUCT. B-51-93 TO 1184+00 EB	245	110	751		5626	$3,601	5626	5626	
	STRUCT. B-51-94 TO 1184+00 WB	247	111	756		5668	$3,628	5668	5668	
	STA 1184+00 TO STA 1277+67 EB	523	239	1604		12090	$7,738	12090	12090	
	STA 1277+67 TO EOTL STH 11 EB		6	23		90	$58	90	90	
	STA 1184+00 TO STA 1277+86 WB	503	232	1541		11645	$7,453	11645	11645	
	STA 1277+86 TO EOTL STH 11 WB		6	21		82	$52	82	82	
	STH 11 INTERSECTION		4	14		54	$35	54	54	
	EOTL STH 11 TO STA 1280+59 EB		6	21		81	$52	81	81	
	STA 1280+59 TO STA 1226+00 EB	246	114	753		5692	$3,643	5692	5692	
	EOTL STH 11 TO STA 1280+10 WB		6	21		84	$54	84	84	
	STA 1280+10 TO STA 1226+00 WB	262	119	802		6026	$3,857	6026	6026	
	STA 1226+00 TO STA 1383+00 EB	334	151	1023		7672	$4,911	7672	7672	
	STA 1226+00 TO STA 1383+00 WB	334	151	1022		7672	$4,910	7672	7672	
	STA 1383+00 TO STRUCT. B-51-102	37	18	111		844	$540	844	844	
	STA 1383+00 TO STRUCT. B-51-103	42	19	129		952	$609	952	952	
	STRUCT. B-51-102 TO STA 1415+00	113	54	347		2640	$1,690	2640	2640	
	STRUCT. B-51-103 TO STA 1408+00	98	46	299		2267	$1,451	2267	2267	
	SUBTOTAL	3126	1452	9672		72368	$46,319	72368	72368	
STH 83	STA 340+80 TO EOTL BYPASS	117	47	356		2577	$1,650	2577	2577	
	EOTL BYPASS TO STA 369+34.51	173	69	530		3823	$2,447	3823	3823	
	STH 83 DRIVES			14						127
	SUBTOTAL	290	116	900		6400	$4,097	6400	6400	127
BREVER ROAD	STA 97+00 TO STRUCT. B-51-95			52	597					
	STRUCT. B-51-95 TO STA 118+00			83	950					
	BREVER RD DRIVES			1						9
	SUBTOTAL			136	1547					9
STH 142	STA 101+08 TO STRUCT. B-51-92		43	166		668	$428	668	668	
	STRUCT. B-51-92 TO STA 143+39		58	229		918	$588	918	918	
	STH 142 DRIVES			11						41
STH 142 NE RAMP	EOTL STH 142 TO EOTL BYPASS	92	36	282		2020	$1,293	2020	2020	
STH 142 SW RAMP	EOTL BYPASS TO EOTL STH 142	96	38	293		2102	$1,346	2102	2102	
MT TOM ROAD	EOTL STH 142 TO STA 104+25		9	35		138	$89	138	138	
	SUBTOTAL	188	184	1016		5846	$3,744	5846	5846	41
STH 11	STA 115+57.26 TO STA 126+94.78		28	111		445	$285	445	445	
	STA 129+70.24 TO STA 168+39.91		96	378		1520	$973	1520	1520	
	STH 11 DRIVES			32						127
	SUBTOTAL		124	521		1965	$1,258	1965	1965	127

CONTINUED ON NEXT PAGE

NOTE: REVISED ITEMS SHOWN AS HIGHLIGHTED TEXT

REVISION DATE: 5/25/07

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

FILE NAME: S:\DOT\DOT_SE\04081\WORK FOR 09\ESTIMATES\04081_MISCQUANT_09.ppt
ORIGINATOR: JUSTIN M. ARNDT
ORIG. DATE: MARCH 3, 2006
PLOTTED DATE: 6/13/2007 11:44 AM

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

NOTE: REVISED ITEMS SHOWN AS HIGHLIGHTED TEXT

REVISION DATE: 5/25/07

3

3

CONTINUED

PAVEMENT ITEMS

ROADWAY	LOCATION	455.0115 ASPHALTIC MATERIAL PG64-22 TON	455.0120 ASPHALTIC MATERIAL PG64-28 TON	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	460.1103 HMA PAVEMENT TYPE E-3 TON	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	460.2500.S QMP HMA PAVEMENT NUCLEAR DENSITY TON	460.3000 QMP HMA MIXURE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
KETTERHAGEN ROAD	STA 91+00 TO B-51-101			66	756					
	B-51-101 TO STA 110+75			59	668					
	MCCANN DRIVE			15						172
	KETTERHAGEN DRIVES			2						13
	SUBTOTAL			142	1424					185
CTH A	STA 37+69 TO STRUCT. B-51-98		38	147		591	$379	591	591	
	STRUCT. B-51-98 TO STA 70+25		44	171		686	$439	686	686	
	CTH A DRIVES			15						58
CTH A NW RAMP	EOTL CTH A TO STA 51+00		5	18		71	$46	71	71	
CTH A NW RAMP	STA 51+00 TO EOTL BYPASS	66	26	202		1448	$927	1448	1448	
CTH A SE RAMP	EOTL CTH A TO EOTL BYPASS	95	37	290		2082	$1,333	2082	2082	
OLD CTH A	STA 48+00 TO EOTL CTH A		4	13		51	$33	51	51	
	OLD CTH A DRIVES			1						1
RIVER ROAD	EOTL CTH A TO STA 52+25		6	24		96	$61	96	96	
	SUBTOTAL	161	160	881		5025	$3,218	5025	5025	59
STH 36/83 NB TO SB RAMP	STA 196+00 TO STA 203+68	28	14	84		642	$411	642	642	
	SUBTOTAL	28	14	84		642	$411	642	642	
	TOTALS	**3793**	**2050**	**13352**	**2971**	**92246**	**59047**	**92246**	**92246**	**548**

ADD #1
REV SHT 210
6/29/2007

PAVEMENT TIES

STATION	OFFSET	LOCATION	416.0610 PAVEMENT TIES EACH
B-51-95			
103+90.17 - 104+05.93	LT	BREVER ROAD	5
103+90.17 - 104+05.93	RT	BREVER ROAD	5
106+18.33 - 106+34.00	LT	BREVER ROAD	5
106+18.33 - 106+34.00	RT	BREVER ROAD	5
SUBTOTAL			20
B-51-101			
100+14.70 - 100+30.37	LT	KETTERHAGEN ROAD	5
100+14.70 - 100+30.37	RT	KETTERHAGEN ROAD	5
102+54.21 - 102+69.88	LT	KETTERHAGEN ROAD	5
102+54.21 - 102+69.88	RT	KETTERHAGEN ROAD	5
SUBTOTAL			20
TOTAL			40

ASPHALTIC FLUMES

STATION	OFFSET	LOCATION	465.0315 ASPHALTIC FLUMES SY
343+85	RT	STH 83	20
345+00	LT	STH 83	19
351+69	LT	STH 83	41
93+37	LT	KETTERHAGEN RD	20
93+78	RT	KETTERHAGEN RD	20
1369+57	LT	BYPASS	20
1369+68	RT	BYPASS	20
201+43	LT	STH 36/83 NB-SB RAMP	20
TOTAL			180

ASPHALTIC SURFACE TEMPORARY

STATION - STATION	LOCATION	LENGTH FT	WIDTH FT	DEPTH PAV'T IN	DEPTH AGG IN	305.0120* BASE AGGREGATE DENSE 1-1/4-INCH TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON
360+48 - 369+35	STH 83	932	20	3	6	794	375
111+20 - 118+00	BREVER ROAD	680	20	3	6	579	274
91+00 - 96+00	KETTERHAGEN RD	500	20	3	6	426	201
107+50 - 110+75	KETTERHAGEN RD	325	20	3	6	277	131
TOTAL						2076	981

* ADDITIONAL QUANTITY LISTED ELSEWHERE.

PROJECT NUMBER: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET NO: 210	E

FILE NAME: S:\DOT\DOT_SE\04081\WORK FOR 09\ESTIMATES\04081_MISCQUANT_09.ppt

ORIGINATOR: JUSTIN M. ARNDT

ORIG. DATE: MARCH 3, 2006

PLOTTED DATE: 6/13/2007 11:44 AM

ASPHALTIC SURFACE RUMBLE STRIP

STATION	SHOULDER	LOCATION	465.0400 ASPHALTIC SURFACE RUMBLE STRIP LF
1125+88 - 1129+44	MEDIAN	WB BYPASS	356
1126+79 - 1132+26	MEDIAN	EB BYPASS	549
1127+94 - 1132+56	OUTSIDE	EB BYPASS	466
1131+76 - 1132+18	MEDIAN	WB BYPASS	41
1142+96 - 1277+92	MEDIAN	WB BYPASS	13,472
1143+00 - 1175+01	OUTSIDE	WB BYPASS	3,193
1143+02 - 1165+80	OUTSIDE	EB BYPASS	2,286
1143+09 - 1270+95	MEDIAN	EB BYPASS	12,811
1174+03 - 1273+93	OUTSIDE	EB BYPASS	10,033
1183+23 - 1276+86	OUTSIDE	WB BYPASS	9,319
1273+71 - 1278+91	MEDIAN	EB BYPASS	520
1279+52 - 1284+74	MEDIAN	WB BYPASS	522
1280+54 - 1389+41	MEDIAN	EB BYPASS	10,887
1281+59 - 1357+44	OUTSIDE	EB BYPASS	7,585
1363+44 - 1364+63	OUTSIDE	EB BYPASS	119
1378+00 - 1389+67	OUTSIDE	EB BYPASS	1,167
1284+81 - 1358+55	OUTSIDE	WB BYPASS	7,374
1287+50 - 1389+09	MEDIAN	WB BYPASS	10,159
~~1368+02 - 1373+42~~	~~MEDIAN~~	~~EB BYPASS~~	~~DELETED 541~~
1372+23 - 1373+42	OUTSIDE	WB BYPASS	119
~~1373+61 - 1389+09~~	~~MEDIAN~~	~~WB BYPASS~~	~~DELETED 1550~~
~~1374+96 - 1389+41~~	~~MEDIAN~~	~~EB BYPASS~~	~~DELETED 1444~~
1379+09 - 1388+80	OUTSIDE	WB BYPASS	974
1393+85 - 1411+50	MEDIAN	WB BYPASS	1,762
1393+99 - 1423+00	MEDIAN	EB BYPASS	2,872
1394+70 - 1415+33	OUTSIDE	EB BYPASS	2,020
1398+35 - 1408+98	OUTSIDE	WB BYPASS	1,083
190+11 - 209+10	OUTSIDE	NB TO SB RAMP	1,794
195+85 - 203+70	MEDIAN	NB TO SB RAMP	814
TOTAL			102,297

MARKER POSTS CULVERT END FLEXIBLE

LOCATION	614.0620.S MARKER POSTS CULVERT END FLEXIBLE EACH
SEE DRAINAGE TABLE FOR LOCATIONS	43
TOTAL	43

ADD #1
REV SHT 211
6/29/2007

DRAINAGE TABLE QUANTITY SUMMARY

BID ITEM #	ITEM NAME	UNIT	QUANTITY
611.0201	Manholes Type 1	EACH	7
611.0210	Manholes Type 3	EACH	10
611.0301	Inlets Type 1	EACH	6
611.0303	Inlets Type 3	EACH	61
611.0305	Inlets Type 8	EACH	4
	COVERS		
611.0530	Manhole Covers Type J	EACH	7
611.0606	Inlet Covers Type B	EACH	10
611.0609	Inlet Covers Type B-A	EACH	1
611.0624	Inlet Covers Type H	EACH	9
611.0627	Inlet Covers Type HM	EACH	115
611.0636	Inlet Covers Type HM-S	EACH	19
611.0639	Inlet Covers Type H-S	EACH	4
611.0642	Inlet Covers Type MS	EACH	6
611.0654	Inlet Covers Type V	EACH	3
	PIPES		
608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	2040
608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	405
608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	720
520.0118	Culvert Pipe Class III 18-Inch	LF	58
520.0124	Culvert Pipe Class III 24-Inch	LF	410
608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	42
608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	168
520.0318	Culvert Pipe Class IV 18-Inch	LF	137
522.0524	Culvert Pipe Reinforced Concrete Class V 24-Inch	LF	176
520.0624	Culvert Pipe Class V 24-Inch	LF	423
612.0212	Pipe Underdrain Unperforated 12-Inch	LF	309
	ENDWALLS		
522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	9
522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2
522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	6
SPV.0060.02	Apron Endwalls for Underdrain Reinforced Concrete 12-Inch	EACH	4
520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	6
520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	14
	ADJUSTING		
611.8110	Adjusting Manhole Covers	EACH	8
611.8115	Adjusting Inlet Covers	EACH	83

NOTE: REVISED ITEMS SHOWN AS HIGHLIGHTED TEXT

REVISION DATE: 5/25/07

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

STRUCTURES

STRCT #	ROADWAY	LOCATION		STRCT TYPE - COVER TYPE	PROP GRND ELEV OR RIM ELEVATION	BOTT INV ELEV	TOP OF STRUCTURE ELEVATION	STRUCTURE DEPTH	INLET PROTECTION TYPE	NOTES
99.0	STH 83	370+96.50	3.8' RT	MH3-J	768.25	760.57	767.00	6.43	NA	B,D,J
100.0	STH 83	369+00.00	7.0' RT	MH3-J	768.79	761.63	767.54	5.91	A	B,D,
100.1	STH 83	369+00.00	25.0' LT	INL3-H-S	768.36	763.90	767.36	3.46	C	A,B,F,
100.2	STH 83	368+90.00	25.4' LT	INL3-H-S	768.36	764.10	767.36	3.26	C	A,B,F,
100.3	STH 83	369+00.00	24.6' RT	INL3-H-S	768.47	764.10	767.47	3.37	C	A,B,F,
100.4	STH 83	368+90.00	25.0' RT	INL3-H-S	768.47	764.30	767.47	3.17	C	A,B,F,
101.0	STH 83	368+00.00	.0' RT	MH3-J	769.24	762.20	767.99	5.79	A	B,D,
101.1	STH 83	367+75.00	47.7' LT	INL8-MS	765.18	762.60	765.18	2.58	A	B,C,
101.2	STH 83	368+00.00	40.0' RT	INL8-MS	766.55	763.50	766.55	3.05	A	B,C,
102.0	STH 83	368+15.49	44.0' LT	EW	768.95	766.43	NA	NA	SEE EC	G,O
102.1	STH 83	368+35.51	43.8' LT	EW	768.95	766.53	NA	NA	SEE EC	G,O
103.0	STH 83	366+50.00	49.7' LT	EW	764.34	764.34	NA	NA	SEE EC	G,O
103.1	STH 83	366+50.00	25.5' LT	INL3-H	769.21	764.47	768.21	3.74	C	A,B,F,
103.2	STH 83	366+40.00	25.5' LT	INL3-H	769.24	764.77	768.24	3.47	C	A,B,F,
103.3	STH 83	366+50.00	25.5' RT	INL3-H	769.21	764.81	768.21	3.40	C	A,B,F,
103.4	STH 83	366+40.00	25.5' RT	INL3-H	769.24	765.06	768.24	3.18	C	A,B,F,
104.0	STH 83	364+67.93	45.4' LT	EW	765.41	765.41	NA	NA	SEE EC	G,O
104.1	STH 83	364+00.00	39.8' LT	MH1-MS	769.00	765.61	769.00	3.39	A	B,C,P,Q
104.2	STH 83	364+00.00	25.5' LT	INL3-H	770.14	765.65	769.14	3.49	C	A,B,F,
104.3	STH 83	363+90.00	25.5' LT	INL3-H	770.22	765.95	769.22	3.27	C	A,B,F,
104.4	STH 83	364+00.00	25.5' RT	INL3-H	770.14	765.92	769.14	3.22	C	A,B,F,
104.5	STH 83	363+90.00	25.5' RT	INL3-H	770.22	766.00	769.22	3.22	C	A,B,F,
104.6	STH 83	363+00.00	25.5' RT	INL3-H	771.22	767.05	770.22	3.17	C	A,B,F,
105.0	STH 83	357+78.26	3.7' RT	MH3-J	771.77	766.27	770.52	4.25	A	A,B,F,
105.1	STH 83	357+69.00	33.2' RT	INL3-HM	772.67	768.44	771.67	3.23	C	A,B,F,
105.2	STH 83	358+00.00	35.5' LT	INL3-HM	771.43	767.26	770.43	3.17	C	A,B,F,
105.3	STH 83	359+25.00	25.7' RT	INL3-HM	772.67	767.72	771.67	3.95	C	A,B,F,
105.4	STH 83	359+50.00	25.5' RT	INL3-HM-S	772.52	767.97	771.52	3.55	C	A,B,F,
105.5	STH 83	359+60.00	25.5' RT	INL3-HM-S	772.47	768.17	771.47	3.30	C	A,B,F,
105.6	STH 83	360+00.00	25.5' RT	INL3-HM	772.64	768.47	771.64	3.17	C	A,B,F,
106.0	STH 83	357+07.00	8.4' RT	MH3-HM	771.41	765.86	770.41	4.55	C	A,B,F,P,R
106.1	STH 83	357+07.00	5.7' LT	INL3-HM	771.39	766.31	770.39	4.08	C	A,B,F,
106.2	STH 83	357+10.00	35.5' LT	INL3-HM-S	770.98	766.55	769.98	3.43	C	A,B,F,
106.3	STH 83	357+00.00	35.5' LT	INL3-HM-S	770.97	766.75	769.97	3.22	C	A,B,F,
106.4	STH 83	357+22.40	4.1' RT	MH3-B	771.23	765.94	769.90	3.96	B	A,B,E,P,S
107.0	STH 83	355+50.00	8.5' RT	INL3-HM	772.87	765.31	771.87	6.56	C	A,B,F,
107.1	STH 83	355+50.00	6.3' LT	INL3-HM	772.42	766.20	771.42	5.22	C	A,B,F,
107.2	STH 83	355+50.00	35.5' LT	INL3-HM	773.06	765.70	772.06	6.36	C	A,B,F,
107.3	STH 83	355+50.00	35.5' RT	INL3-HM	772.58	766.78	771.58	4.80	C	A,B,F,
107.4	STH 83	356+07.00	35.5' RT	INL3-HM-S	771.77	767.17	770.77	3.60	C	A,B,F,
107.5	STH 83	356+17.00	35.5' RT	INL3-HM-S	771.77	767.37	770.77	3.40	C	A,B,F,
107.6	STH 83	356+60.00	35.5' RT	INL3-HM	771.85	767.67	770.85	3.18	C	A,B,F,
108.0	STH 83	354+00.00	8.5' RT	MH3-HM	777.34	764.46	776.34	11.88	C	A,B,F,P,S
108.1	STH 83	354+00.00	106.0' LT	EW	763.92	763.92	NA	NA	SEE EC	G,O
108.2	STH 83	354+00.00	47.5' RT	INL3-HM	777.25	764.80	776.25	11.45	C	A,B,F,

CONT. ON NEXT PAGE

QUNTITY BREAKDOWN SHOWN ON NEXT 4 SHHETS. QUANTITIES SHOWN IN THE DRAINAGE TABLE QUANTITY SUMMARY

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS. LAYOUT OF SHEET WAS CHANGED TO ACCOMMODATE NOTE UPDATES

TABLE NOTE LEGEND:

- **A** RIM ELEVATION = FLANGE ELEVATION
- **B** OFFSET TO CENTER OF STRUCTURE
- **C** TOP OF STRUCTURE ELEVATION = RIM ELEVATION. RIM SUPRESS 2" INTO TOP OF STRUCTURE OR LID.
- **D** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 9" CASTING - 6" ADJUSTMENT RINGS).
- **E** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 10" CASTING - 6" ADJUSTMENT RINGS).
- **F** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 6" CASTING - 6" ADJUSTMENT RINGS).
- **G** STATION & OFFSET FOR ENDWALLS IS MEASURED AT END OF ENDWALL.
- **H** PIPE JOINT TIES ARE NOT A PAY ITEM. FOR INFORMATION ONLY.
- **I** SEE SDD FOR CONCRETE SURFACE DRAIN DROP INLET TYPE AT STRUCTURES.
- **J** EXISTING PIPE TO REMAIN
- **K** STRUCTURE AND COVER PLATE PLACED IN PREVIOUS PROJECT. REMOVE COVER PLATE,PLACE COVER AND RINGS AND SET TO FINAL PLAN RIM ELEVATION. REMOVAL AND DISPOSAL OF COVER PLATE IS INCIDENTAL TO ADJUSTMENT OF INLET OR MANHOLE.
- **N** INLET PLACED AS REVISION TO 3180-08-70 PROJECT DURING CONSTRUCTION.
- **O** MARKER POST CULVERT END FLEXABLE REQUIRED.
- **P** STRUCTURE REQUIRES FLAT SLAB TOP.
- **Q** PROVIDE OPENING IN FLAT SLAB TOP TO ACCOMMODATE A SINGLE INLET COVER TYPE "MS".
- **R** 3'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **S** 2'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **T** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-(08&14)-70 PLAN SET SUBSEQUENT UPDATE SHEETS.
- **U** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE PROJECT 3180-08-70 RSA UPDATE PLAN SET.
- **V** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-09-70 PLAN SET SUBSEQUENT UPDATE SHEETS.

CONTINUED

STRUCTURES

STRCT #	ROADWAY	LOCATION		STRCT TYPE - COVER TYPE	PROP GRND ELEV OR RIM ELEVATION	BOTT INV ELEV	TOP OF STRUCTURE ELEVATION	STRUCTURE DEPTH	INLET PROTECTION TYPE	NOTES
108.3	STH 83	354+00.00	83.0' RT	EW	764.97	764.97	NA	NA	SEE EC	G,O
109.0	BYPASS	1126+15.00	102.4' LT	MH1-HM	779.14	774.10	778.14	4.04	C	A,B,F,P,S,
109.1	BYPASS	1125+77.70	96.3' LT	INL1-B	778.96	774.40	777.63	3.23	B	G,O
110.0	BYPASS	1126+07.00	58.5' LT	INL3-HM	780.10	773.77	779.10	5.33	C	A,B,F,
110.1	BYPASS	1125+84.00	58.0' LT	MH3-B	779.65	757.16	778.32	21.16	B	A,B,E,P,S
111.0	BYPASS	1126+07.00	19.5' LT	MH1-HM	780.24	757.49	779.24	21.75	C	A,B,F,P,S
111.1	BYPASS	1125+91.10	12.9' LT	INL1-B	780.11	775.60	778.78	3.18	B	A,B,E,
112.0	BYPASS	1126+19.03	7.8' LT	MH1-HM	780.91	774.83	779.91	5.08	C	A,B,F,P,S
112.1	BYPASS	1126+20.00	9.1' RT	INL3-HM	780.97	776.10	779.97	3.87	C	A,B,F,
112.2	BYPASS	1126+20.00	16.4' RT	INL3-HM	780.71	776.35	779.71	3.36	C	A,B,F,
112.3	BYPASS	1126+30.00	17.3' RT	INL3-HM	780.93	776.65	779.93	3.28	C	A,B,F,
112.4	BYPASS	1126+80.00	19.5' RT	INL3-HM	781.96	777.75	780.96	3.21	C	A,B,F,
113.0	BYPASS	1124+24.43	123.3' LT	EW	763.92	763.92	NA	NA	SEE EC	G,O
113.1	STH 83	354+56.30	44.6' LT	INL1-B	776.68	772.08	775.35	3.27	B	A,B,E,
113.2	STH 83	354+50.00	39.1' LT	MH1-HM	777.29	772.80	776.29	3.49	C	A,B,F,P,S
113.3	BYPASS	1124+83.00	58.5' LT	INL3-HM	777.29	773.10	776.29	3.19	C	A,B,F,
114.0	BYPASS	1123+80.50	135.9' RT	EW	762.93	762.63	NA	NA	SEE EC	G,O
115.0	BYPASS	1124+00.00	58.0' RT	MH3-B	775.29	769.00	773.96	4.96	B	A,B,E,P,S
115.1	BYPASS	1124+10.00	58.5' RT	INL3-HM	775.75	771.20	774.75	3.55	C	A,B,F,
115.2	BYPASS	1125+21.50	62.6' RT	INL1-B	778.34	773.16	777.01	3.85	B	A,B,E,
115.3	BYPASS	1124+08.50	64.9' RT	INL3-HM	775.65	771.40	774.65	3.25	C	A,B,F,
115.4	BYPASS	1124+00.00	19.5' RT	INL3-HM	775.49	770.27	774.49	4.22	C	A,B,F,
115.5	BYPASS	1124+00.00	7.5' RT	INL3-HM	775.56	770.61	774.56	3.95	C	A,B,F,
115.6	BYPASS	1124+00.00	7.5' LT	INL3-HM	775.32	771.01	774.32	3.31	C	A,B,F,
115.7	BYPASS	1124+00.00	19.5' LT	INL3-HM	775.52	771.35	774.52	3.17	C	A,B,F,
116.0	STH 83	351+00.93	133.3' RT	EW	765.36	765.36	NA	NA	SEE EC	G,O
116.1	STH 83	351+50.00	46.6' RT	INL3-HM	779.79	774.90	778.79	3.89	C	A,B,F,
116.2	STH 83	351+51.00	39.1' RT	INL3-HM	779.31	775.10	778.31	3.21	C	A,B,F,
117.0	STH 83	351+50.00	108.6' RT	EW	761.50	761.50	NA	NA	SEE EC	G,O
117.1	STH 83	351+50.00	39.4' RT	INL3-HM	776.38	771.00	775.38	4.38	C	A,B,F,
117.2	STH 83	351+50.00	1.5' LT	INL3-HM	777.48	772.70	776.48	3.78	C	A,B,F,
117.3	STH 83	351+50.00	8.7' LT	INL3-HM	777.18	772.90	776.18	3.28	C	A,B,F,
117.4	STH 83	351+50.00	40.7' LT	INL3-HM	778.00	773.80	777.00	3.20	C	A,B,F,
118.0	STH 83	348+81.12	89.8' RT	EW	759.96	759.96	NA	NA	SEE EC	G,O
118.1	STH 83	348+85.00	29.5' RT	INL3-HM	771.24	766.90	770.24	3.34	C	A,B,F,
118.2	STH 83	348+95.60	30.1' RT	INL3-HM	771.53	767.30	770.53	3.23	C	A,B,F,
118.3	STH 83	348+86.00	2.6' RT	INL3-HM	772.67	768.20	771.67	3.47	C	A,B,F,
118.4	STH 83	348+86.00	1.1' LT	INL3-HM	772.68	768.40	771.68	3.28	C	A,B,F,
118.5	STH 83	348+96.00	1.6' LT	INL3-HM	772.97	768.80	771.97	3.17	C	A,B,F,
118.6	STH 83	348+85.20	28.1' LT	INL3-HM	774.10	769.90	773.10	3.20	C	A,B,F,
119.0	STH 83	350+43.56	96.4' LT	EW	773.67	764.16	NA	NA	SEE EC	G,O
119.1	STH 83	349+75.86	71.1' LT	EW	773.67	768.71	NA	NA	SEE EC	G,O
120.0	STH 83	347+28.20	79.4' RT	EW	757.31	757.31	NA	NA	SEE EC	G,O
120.1	STH 83	347+28.20	25.5' RT	INL3-HM	767.68	762.19	766.68	4.49	C	A,B,F,
120.2	STH 83	347+38.20	25.5' RT	INL3-HM	767.90	762.39	766.90	4.51	C	A,B,F,

CONT. ON NEXT PAGE

QUANTITIES SHOWN IN THE DRAINAGE TABLE QUANTITY SUMMARY

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS. LAYOUT OF SHEET WAS CHANGED TO ACCOMMODATE NOTE UPDATES

TABLE NOTE LEGEND:

- **A** RIM ELEVATION = FLANGE ELEVATION
- **B** OFFSET TO CENTER OF STRUCTURE
- **C** TOP OF STRUCTURE ELEVATION = RIM ELEVATION. RIM SUPRESS 2" INTO TOP OF STRUCTURE OR LID.
- **D** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 9" CASTING - 6" ADJUSTMENT RINGS).
- **E** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 10" CASTING - 6" ADJUSTMENT RINGS).
- **F** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 6" CASTING - 6" ADJUSTMENT RINGS).
- **G** STATION & OFFSET FOR ENDWALLS IS MEASURED AT END OF ENDWALL.
- **H** PIPE JOINT TIES ARE NOT A PAY ITEM. FOR INFORMATION ONLY.
- **I** SEE SDD FOR CONCRETE SURFACE DRAIN DROP INLET TYPE AT STRUCTURES.
- **J** EXISTING PIPE TO REMAIN
- **K** STRUCTURE AND COVER PLATE PLACED IN PREVIOUS PROJECT. REMOVE COVER PLATE,PLACE COVER AND RINGS AND SET TO FINAL PLAN RIM ELEVATION. REMOVAL AND DISPOSAL OF COVER PLATE IS INCIDENTAL TO ADJUSTMENT OF INLET OR MANHOLE.
- **N** INLET PLACED AS REVISION TO 3180-08-70 PROJECT DURING CONSTRUCTION.
- **O** MARKER POST CULVERT END FLEXABLE REQUIRED.
- **P** STRUCTURE REQUIRES FLAT SLAB TOP.
- **Q** PROVIDE OPENING IN FLAT SLAB TOP TO ACCOMMODATE A SINGLE INLET COVER TYPE "MS".
- **R** 3'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **S** 2'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **T** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-(08&14)-70 PLAN SET SUBSEQUENT UPDATE SHEETS.
- **U** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE PROJECT 3180-08-70 RSA UPDATE PLAN SET.
- **V** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-09-70 PLAN SET SUBSEQUENT UPDATE SHEETS.

CONTINUED

STRUCTURES

STRCT #	ROADWAY	LOCATION		STRCT TYPE - COVER TYPE	PROP GRND ELEV OR RIM ELEVATION	BOTT INV ELEV	TOP OF STRUCTURE ELEVATION	STRUCTURE DEPTH	INLET PROTECTION TYPE	NOTES
120.3	STH 83	346+88.00	25.0' RT	INL3-B-A	766.97	762.47	765.64	3.17	B	A,B,E,
121.0	STH 83	346+30.82	81.2' RT	EW	761.53	755.95	NA	NA	SEE EC	G,O
121.1	STH 83	347+12.03	77.2' RT	EW	761.53	757.11	NA	NA	SEE EC	G,O
122.0	STH 83	346+00.00	71.2' RT	EW	755.65	755.65	NA	NA	SEE EC	G,O
122.1	STH 83	346+00.00	25.5' RT	INL3-HM-S	766.14	760.70	765.14	4.44	C	A,B,F,
122.2	STH 83	345+90.00	25.5' RT	INL3-HM-S	766.11	761.90	765.11	3.21	C	A,B,F,
122.3	STH 83	343+59.35	44.7' RT	EW	766.03	762.79	NA	NA	SEE EC	G,O
122.4	STH 83	343+11.29	44.7' RT	EW	766.03	763.03	NA	NA	SEE EC	G,O
123.0	BREVER ROAD	99+98.00	72.9' LT	EW	769.27	750.94	NA	NA	SEE EC	G,O
123.1	BREVER ROAD	99+98.00	68.4' RT	EW	769.27	752.42	NA	NA	SEE EC	G,O
124.0	BREVER ROAD	103+84.62	16.1' LT	INL1-V	778.69	774.35	777.36	3.01	B	B,E,I,
124.1	BREVER ROAD	103+84.62	80.6' LT	EW	755.71	755.71	NA	NA	SEE EC	G,O
125.0	BREVER ROAD	103+84.62	16.1' RT	INL1-V	778.69	774.35	777.36	3.01	B	B,E,I,
125.1	BREVER ROAD	103+84.62	87.4' RT	EW	753.00	753.00	NA	NA	SEE EC	G,O
126.0	BREVER ROAD	104+22.53	75.0' LT	EW	765.31	751.67	NA	NA	SEE EC	G,O
126.1	BREVER ROAD	104+29.14	71.3' RT	EW	765.31	752.60	NA	NA	SEE EC	G,O
127.0	BREVER ROAD	106+18.33	97.6' LT	EW	781.76	750.10	NA	NA	SEE EC	G,O
127.1	BREVER ROAD	107+00.00	98.2' RT	EW	781.76	750.52	NA	NA	SEE EC	G,O
128.0	BREVER ROAD	111+37.60	82.1' LT	EW	770.71	757.84	NA	NA	SEE EC	G,O
128.1	BREVER ROAD	112+41.11	67.6' LT	EW	770.71	759.18	NA	NA	SEE EC	G,O
129.0	BREVER ROAD	117+48.92	25.9' RT	EW	767.14	764.91	NA	NA	SEE EC	G,O
129.1	BREVER ROAD	117+69.01	25.9' RT	EW	767.14	765.25	NA	NA	SEE EC	G,O
130.0	KETTERHAGEN ROAD	91+52.00	20.5' LT	MH3-J	830.10	824.80	828.85	4.05	A	B,D,
130.1	KETTERHAGEN ROAD	91+25.00	20.5' LT	INL8-MS	829.14	826.00	829.14	3.14	A	B,C,
130.2	KETTERHAGEN ROAD	91+45.00	21.5' RT	INL8-MS	829.45	826.40	829.45	3.05	A	B,C,
130.3	KETTERHAGEN ROAD	93+62.79	42.5' LT	EW	815.06	815.06	NA	NA	SEE EC	G,O
131.0	PRIVATE DRIVE	12+00.00	50.0' RT	EW	807.28	794.00	NA	NA	SEE EC	G,O
131.1	PRIVATE DRIVE	12+00.00	56.8' LT	EW	807.28	794.94	NA	NA	SEE EC	G,O
132.0	KETTERHAGEN ROAD	99+00.00	113.7' LT	EW	822.13	791.35	NA	NA	SEE EC	G,O
132.1	KETTERHAGEN ROAD	99+00.00	109.4' RT	EW	822.13	792.50	NA	NA	SEE EC	G,O
133.0	KETTERHAGEN ROAD	102+43.64	95.0' LT	EW	823.84	790.66	NA	NA	SEE EC	G,O
133.1	KETTERHAGEN ROAD	102+43.64	93.0' RT	EW	823.84	791.60	NA	NA	SEE EC	G,O
134.0	BYPASS	1128+00.00	102.6' RT	EW	775.00	775.00	NA	NA	SEE EC	G,O
134.1	BYPASS	1128+00.00	19.5' RT	INL3-HM	784.59	780.00	783.59	3.59	C	A,B,F,
134.2	BYPASS	1128+10.00	19.5' RT	INL3-HM	784.82	780.30	783.82	3.52	C	A,B,F,
134.3	BYPASS	1128+00.00	7.5' LT	INL3-HM	784.93	780.64	783.93	3.29	C	A,B,F,
135.0	BREVER ROAD	115+42.30	34.4' RT	EW	765.82	763.56	NA	NA	SEE EC	G,O
135.1	BREVER ROAD	115+77.66	34.4' RT	EW	765.82	764.18	NA	NA	SEE EC	G,O
136.0	KETTERHAGEN ROAD	101+09.17	111.6' LT	EW	791.94	791.94	NA	NA	SEE EC	G,O
136.1	KETTERHAGEN ROAD	101+09.17	15.1' LT	INL1-V	822.22	817.88	820.89	3.01	B	B,E,I,
137.0	KETTERHAGEN ROAD	101+09.17	105.4' RT	EW	794.00	794.00	NA	NA	SEE EC	G,O
137.1	KETTERHAGEN ROAD	101+09.17	15.1' RT	MH1-V	822.22	817.71	820.89	3.18	B	B,E,I,

QUANTITIES SHOWN IN THE DRAINAGE TABLE QUANTITY SUMMARY

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS. LAYOUT OF SHEET WAS CHANGED TO ACCOMMODATE NOTE UPDATES

TABLE NOTE LEGEND:

- **A** RIM ELEVATION = FLANGE ELEVATION
- **B** OFFSET TO CENTER OF STRUCTURE
- **C** TOP OF STRUCTURE ELEVATION = RIM ELEVATION. RIM SUPRESS 2" INTO TOP OF STRUCTURE OR LID.
- **D** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 9" CASTING - 6" ADJUSTMENT RINGS).
- **E** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 10" CASTING - 6" ADJUSTMENT RINGS).
- **F** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 6" CASTING - 6" ADJUSTMENT RINGS).
- **G** STATION & OFFSET FOR ENDWALLS IS MEASURED AT END OF ENDWALL.
- **H** PIPE JOINT TIES ARE NOT A PAY ITEM. FOR INFORMATION ONLY.
- **I** SEE SDD FOR CONCRETE SURFACE DRAIN DROP INLET TYPE AT STRUCTURES.
- **J** EXISTING PIPE TO REMAIN
- **K** STRUCTURE AND COVER PLATE PLACED IN PREVIOUS PROJECT. REMOVE COVER PLATE,PLACE COVER AND RINGS AND SET TO FINAL PLAN RIM ELEVATION. REMOVAL AND DISPOSAL OF COVER PLATE IS INCIDENTAL TO ADJUSTMENT OF INLET OR MANHOLE.
- **N** INLET PLACED AS REVISION TO 3180-08-70 PROJECT DURING CONSTRUCTION.
- **O** MARKER POST CULVERT END FLEXABLE REQUIRED.
- **P** STRUCTURE REQUIRES FLAT SLAB TOP.
- **Q** PROVIDE OPENING IN FLAT SLAB TOP TO ACCOMMODATE A SINGLE INLET COVER TYPE "MS".
- **R** 3'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **S** 2'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **T** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-(08&14)-70 PLAN SET SUBSEQUENT UPDATE SHEETS.
- **U** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE PROJECT 3180-08-70 RSA UPDATE PLAN SET.
- **V** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-09-70 PLAN SET SUBSEQUENT UPDATE SHEETS.

2

ADD #1, NEW SHT 213B, 6/29/2007

PIPES

PIPE #	LOCATION FROM	LOCATION TO	TYPE-DIA (INCHES)	CLASS	FILL HEIGHT FT	PLAN LENGTH FT	PIPE LENGTH FT	ELEVATION INV.	ELEVATION DIS.	PLAN SLOPE %	JOINT TIES EACH	NOTES
P100.0	100.0	99.0	SSPRC-24	III	5.43	197	189.19	761.63	760.57	-0.56%	NA	J
P100.1	100.1	100.0	SSPRC-12	III	5.99	32	26.83	763.90	763.70	-0.75%	0	H
P100.2	100.2	100.1	SSPRC-12	III	3.29	10	5.50	764.10	764.00	-1.82%	0	H
P100.3	100.3	100.0	SSPRC-12	III	5.99	18	12.43	764.10	763.70	-3.22%	0	H
P100.4	100.4	100.3	SSPRC-12	III	3.20	10	5.50	764.30	764.20	-1.82%	0	H
P101.0	101.0	100.0	SSPRC-24	III	4.91	101	92.95	762.20	761.73	-0.51%	0	H
P101.1	101.1	101.0	SSPRC-18	III	5.33	54	48.32	762.60	762.30	-0.62%	0	H
P101.2	101.2	101.0	SSPRC-18	III	5.33	40	34.40	763.50	763.30	-0.58%	0	H
P102.0	102.1	102.0	CP-18	III	1.02	15	20.02	766.53	766.43	-0.50%	0	H
P103.1	103.1	103.0	SSPRC-12	III	3.57	19	22.70	764.47	764.34	-0.57%	0	H
P103.2	103.2	103.1	SSPRC-12	III	3.57	10	5.50	764.77	764.57	-3.64%	0	H
P103.3	103.3	103.1	SSPRC-12	III	3.57	51	48.00	764.81	764.57	-0.50%	0	H
P103.4	103.4	103.3	SSPRC-12	III	3.23	10	5.50	765.06	764.91	-2.73%	0	H
P104.1	104.1	104.0	SSPRC-12	III	2.22	63	65.67	765.61	765.41	-0.30%	0	H
P104.2	104.2	104.1	SSPRC-12	III	3.32	15	10.30	765.65	765.61	-0.39%	0	H
P104.3	104.3	104.2	SSPRC-12	III	3.32	10	5.50	765.95	765.70	-4.55%	0	H
P104.4	104.4	104.2	SSPRC-12	III	3.32	51	48.00	765.92	765.70	-0.46%	0	H
P104.5	104.5	104.4	SSPRC-12	III	3.05	10	5.50	766.00	765.97	-0.55%	0	H
P104.6	104.6	104.5	SSPRC-12	III	3.05	90	85.50	767.05	766.05	-1.17%	0	H
P105.0	105.3	105.0	SSPRC-12	III	4.33	150	143.88	767.72	766.37	-0.94%	0	H
P105.1	105.1	105.0	SSPRC-12	III	4.33	32	25.89	768.44	766.37	-7.99%	0	H
P105.2	105.2	105.0	SSPRC-12	III	4.33	45	39.16	767.26	766.37	-2.27%	0	H
P105.4	105.4	105.3	SSPRC-12	III	3.78	26	20.90	767.97	767.82	-0.72%	0	H
P105.5	105.5	105.4	SSPRC-12	III	3.38	10	5.50	768.17	768.07	-1.82%	0	H
P105.6	105.6	105.5	SSPRC-12	III	3.13	40	35.50	768.47	768.27	-0.56%	0	H
P106.0	106.0	107.0	SSPRC-24	III	5.31	157	151.83	765.86	765.41	-0.30%	0	H
P106.1	106.1	106.0	SSPRC-12	III	4.38	14	8.83	766.31	766.26	-0.57%	0	H
P106.2	106.2	106.1	SSPRC-12	III	3.91	30	27.00	766.55	766.41	-0.52%	0	H
P106.3	106.3	106.2	SSPRC-12	III	3.26	10	5.50	766.75	766.65	-1.82%	0	H
P106.4	106.4	106.0	SSPRC-24	III	3.30	16	8.67	765.94	765.91	-0.35%	0	H
P106.5	105.0	106.4	SSPRC-24	III	3.25	56	48.57	766.27	765.99	-0.58%	0	H
P107.0	107.0	108.0	SSPRC-24	III	10.63	150	144.83	765.31	764.56	-0.52%	0	H
P107.1	107.1	107.0	SSPRC-12	III	6.39	15	11.80	766.20	765.41	-6.69%	0	H
P107.2	107.2	107.1	SSPRC-12	III	6.19	30	26.20	765.70	766.30	2.29%	0	H
P107.3	107.3	107.0	SSPRC-12	III	6.39	27	24.00	766.78	765.41	-5.71%	0	H
P107.4	107.4	107.3	SSPRC-12	III	4.63	57	52.50	767.17	766.88	-0.55%	0	H
P107.5	107.5	107.4	SSPRC-12	III	3.43	10	5.50	767.37	767.27	-1.82%	0	H
P107.6	107.6	107.5	SSPRC-12	III	3.23	43	38.50	767.67	767.47	-0.52%	0	H
P108.1	108.0	108.1	SSPRC-24	III	10.63	102	104.23	764.46	763.92	-0.52%	0	H
P108.2	108.2	108.0	SSPRC-24	III	10.63	39	33.83	764.80	764.56	-0.71%	0	H
P108.3	108.3	108.2	SSPRC-24	III	10.20	29	32.80	764.97	764.80	-0.52%	8	H
P109.0	110.0	109.0	SSPRC-12	III	5.16	45	40.55	773.87	774.10	0.57%	0	H
P109.1	109.1	109.0	SSPRC-12	III	3.87	38	33.76	774.40	774.20	-0.59%	0	H
P110.0	110.1	108.0	SSPRC-24	IV	20.24	105	96.92	757.16	764.56	7.64%	0	H

CONT. ON NEXT PAGE

ADD #1
REV SHT 214
6/29/2007

QUANTITIES SHOWN IN THE DRAINAGE TABLE QUANTITY SUMMARY

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS. LAYOUT OF SHEET WAS CHANGED TO ACCOMMODATE NOTE UPDATES

TABLE NOTE LEGEND:

- **A** RIM ELEVATION = FLANGE ELEVATION
- **B** OFFSET TO CENTER OF STRUCTURE
- **C** TOP OF STRUCTURE ELEVATION = RIM ELEVATION. RIM SUPRESS 2" INTO TOP OF STRUCTURE OR LID.
- **D** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 9" CASTING - 6" ADJUSTMENT RINGS).
- **E** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 10" CASTING - 6" ADJUSTMENT RINGS).
- **F** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 6" CASTING - 6" ADJUSTMENT RINGS).
- **G** STATION & OFFSET FOR ENDWALLS IS MEASURED AT END OF ENDWALL.
- **H** PIPE JOINT TIES ARE NOT A PAY ITEM. FOR INFORMATION ONLY.
- **I** SEE SDD FOR CONCRETE SURFACE DRAIN DROP INLET TYPE AT STRUCTURES.
- **J** EXISTING PIPE TO REMAIN
- **K** STRUCTURE AND COVER PLATE PLACED IN PREVIOUS PROJECT. REMOVE COVER PLATE,PLACE COVER AND RINGS AND SET TO FINAL PLAN RIM ELEVATION. REMOVAL AND DISPOSAL OF COVER PLATE IS INCIDENTAL TO ADJUSTMENT OF INLET OR MANHOLE.
- **N** INLET PLACED AS REVISION TO 3180-08-70 PROJECT DURING CONSTRUCTION.
- **O** MARKER POST CULVERT END FLEXABLE REQUIRED.
- **P** STRUCTURE REQUIRES FLAT SLAB TOP.
- **Q** PROVIDE OPENING IN FLAT SLAB TOP TO ACCOMMODATE A SINGLE INLET COVER TYPE "MS".
- **R** 3'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **S** 2'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **T** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-(08&14)-70 PLAN SET SUBSEQUENT UPDATE SHEETS.
- **U** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE PROJECT 3180-08-70 RSA UPDATE PLAN SET.
- **V** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-09-70 PLAN SET SUBSEQUENT UPDATE SHEETS.

CONTINUED

PIPES

PIPE #	LOCATION FROM	TO	TYPE-DIA (INCHES)	CLASS	FILL HEIGHT FT	PLAN LENGTH FT	PIPE LENGTH FT	ELEVATION INV.	ELEVATION DIS.	PLAN SLOPE %	JOINT TIES EACH	NOTES
P110.1	110.0	110.1	SSPRC-12	IV	21.32	24	17.30	773.77	773.65	-0.69%	0	H
P111.0	111.0	110.1	SSPRC-24	IV	20.50	45	38.68	757.49	757.26	-0.59%	0	H
P111.1	111.1	111.0	SSPRC-12	IV	21.58	18	13.20	775.60	774.38	-9.24%	0	H
P112.0	112.0	111.0	SSPRC-24	IV	20.50	18	12.70	774.83	774.38	-3.54%	0	H
P112.1	112.1	112.0	SSPRC-12	III	4.91	17	12.60	776.10	775.83	-2.14%	0	H
P112.2	112.2	112.1	SSPRC-12	III	3.70	8	4.30	776.35	776.20	-3.49%	0	H
P112.3	112.3	112.2	SSPRC-12	III	3.19	11	5.60	776.65	776.45	-3.57%	0	H
P112.4	112.4	112.3	SSPRC-12	III	3.11	50	45.50	777.75	776.75	-2.20%	0	H
P113.0	113.1	113.0	SSPRC-12	III	3.43	63	68.00	772.08	763.92	-12.00%	0	H
P113.1	113.2	113.1	SSPRC-12	III	3.43	9	4.40	772.80	772.18	-14.09%	0	H
P113.2	113.3	113.1	SSPRC-12	III	3.43	38	34.90	773.10	772.18	-2.64%	0	H
P115.0	115.0	114.0	SSPRC-18	III	4.58	75	76.63	769.00	762.63	-8.31%	0	H
P115.1	115.1	115.0	SSPRC-12	III	5.12	10	4.08	771.20	770.60	-14.70%	0	H
P115.2	115.2	115.1	SSPRC-12	III	4.01	112	107.55	773.16	771.30	-1.73%	0	H
P115.3	115.3	115.1	SSPRC-12	III	3.38	7	3.50	771.40	771.30	-2.86%	0	H
P115.4	115.4	115.0	SSPRC-12	III	5.12	39	33.33	770.27	769.50	-2.31%	0	H
P115.5	115.5	115.4	SSPRC-12	III	4.05	12	9.00	770.61	770.37	-2.67%	0	H
P115.6	115.6	115.5	SSPRC-12	III	3.78	15	12.00	771.01	770.71	-2.50%	0	H
P115.7	115.7	115.6	SSPRC-12	III	3.14	12	9.00	771.35	771.11	-2.67%	0	H
P116.1	116.1	116.0	SSPRC-12	III	3.72	94	98.00	774.90	765.36	-9.73%	0	H
P116.2	116.2	116.1	SSPRC-12	III	3.72	8	4.60	775.10	775.00	-2.17%	0	H
P117.0	117.1	117.0	SSPRC-12	III	4.21	63	67.40	771.00	761.50	-14.09%	0	H
P117.1	117.2	117.1	SSPRC-12	III	4.21	41	37.90	772.70	771.10	-4.22%	0	H
P117.2	117.3	117.2	SSPRC-12	III	3.61	8	4.20	772.90	772.80	-2.38%	0	H
P117.3	117.4	117.3	SSPRC-12	III	3.11	32	29.00	773.80	773.00	-2.76%	0	H
P118.0	118.1	118.0	SSPRC-12	III	3.17	55	58.80	766.90	759.96	-11.80%	0	H
P118.1	118.2	118.1	SSPRC-12	III	3.17	10	5.50	767.30	767.00	-5.45%	0	H
P118.2	118.3	118.1	SSPRC-12	III	3.30	27	24.00	768.20	767.00	-5.00%	0	H
P118.3	118.4	118.3	SSPRC-12	III	3.30	4	0.70	768.40	768.30	-14.29%	0	H
P118.4	118.5	118.4	SSPRC-12	III	3.11	10	5.50	768.80	768.50	-5.45%	0	H
P118.5	118.6	118.4	SSPRC-12	III	3.11	27	24.00	769.90	768.50	-5.83%	0	H
P119.0	119.1	119.0	CP-24	III	7.51	72	78.06	768.71	764.16	-5.83%	0	H
P120.0	120.1	120.0	SSPRC-12	III	4.32	48	52.40	762.19	757.31	-9.31%	0	H
P120.1	120.2	120.1	SSPRC-12	III	4.34	10	5.50	762.39	762.29	-1.82%	0	H
P120.2	120.3	120.1	SSPRC-12	III	4.32	41	35.60	762.47	762.29	-0.51%	0	H
P121.0	121.1	121.0	SSPRC-24	III	3.33	70	81.26	757.11	755.95	-1.43%	8	H
P122.0	122.1	122.0	SSPRC-12	III	4.27	40	44.20	760.80	755.65	-11.65%	0	H
P122.1	122.2	122.1	SSPRC-12	III	4.27	10	5.50	761.90	760.80	-20.00%	0	H
P122.2	122.4	122.3	CP-18	III	1.74	43	48.00	763.03	762.79	-0.50%	0	H
P123.0	123.1	123.0	CP-18	IV	16.83	137	141.25	752.42	750.94	-1.05%	0	H
P124.0	124.0	124.1	PU-12	--	3.34	59	63.02	774.35	755.71	-29.58%	0	H
P125.0	125.0	125.1	PU-12	--	3.34	66	69.85	774.35	753.00	-30.57%	0	H
P126.0	126.1	126.0	CP-24	III	11.64	140	146.43	752.60	751.67	-0.64%	0	H
P127.0	127.1	127.0	CP-24	V	29.66	206	212.19	750.52	750.10	-0.20%	0	H
P128.0	128.1	128.0	CP-24	III	10.87	98	104.53	759.18	757.84	-1.28%	0	H

CONT. ON NEXT PAGE

ADD #1
NEW SHT 214B
6/29/2007

QUANTITIES SHOWN IN THE DRAINAGE TABLE QUANTITY SUMMARY

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS.
LAYOUT OF SHEET WAS CHANGED TO ACCOMMODATE
NOTE UPDATES

TABLE NOTE LEGEND:

- **A** RIM ELEVATION = FLANGE ELEVATION
- **B** OFFSET TO CENTER OF STRUCTURE
- **C** TOP OF STRUCTURE ELEVATION = RIM ELEVATION. RIM SUPRESS 2" INTO TOP OF STRUCTURE OR LID.
- **D** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 9" CASTING - 6" ADJUSTMENT RINGS).
- **E** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 10" CASTING - 6" ADJUSTMENT RINGS).
- **F** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 6" CASTING - 6" ADJUSTMENT RINGS).
- **G** STATION & OFFSET FOR ENDWALLS IS MEASURED AT END OF ENDWALL.
- **H** PIPE JOINT TIES ARE NOT A PAY ITEM. FOR INFORMATION ONLY.
- **I** SEE SDD FOR CONCRETE SURFACE DRAIN DROP INLET TYPE AT STRUCTURES.
- **J** EXISTING PIPE TO REMAIN
- **K** STRUCTURE AND COVER PLATE PLACED IN PREVIOUS PROJECT. REMOVE COVER PLATE,PLACE COVER AND RINGS AND SET TO FINAL PLAN RIM ELEVATION. REMOVAL AND DISPOSAL OF COVER PLATE IS INCIDENTAL TO ADJUSTMENT OF INLET OR MANHOLE.
- **N** INLET PLACED AS REVISION TO 3180-08-70 PROJECT DURING CONSTRUCTION.
- **O** MARKER POST CULVERT END FLEXABLE REQUIRED.
- **P** STRUCTURE REQUIRES FLAT SLAB TOP.
- **Q** PROVIDE OPENING IN FLAT SLAB TOP TO ACCOMMODATE A SINGLE INLET COVER TYPE "MS".
- **R** 3'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **S** 2'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **T** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-(08&14)-70 PLAN SET SUBSEQUENT UPDATE SHEETS.
- **U** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE PROJECT 3180-08-70 RSA UPDATE PLAN SET.
- **V** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-09-70 PLAN SET SUBSEQUENT UPDATE SHEETS.

CONTINUED

PIPES

PIPE #	LOCATION FROM	TO	TYPE-DIA (INCHES)	CLASS	FILL HEIGHT FT	PLAN LENGTH FT	PIPE LENGTH FT	ELEVATION INV.	ELEVATION DIS.	PLAN SLOPE %	JOINT TIES EACH	NOTES
P129.0	129.1	129.0	CP-24	--	0.23	14	20.07	765.25	764.91	-1.69%	0	H
P130.0	130.0	130.3	SSPRC-18	III	3.59	167	169.24	824.80	815.06	-5.76%	0	H
P130.1	130.1	130.0	SSPRC-18	III	3.59	26	20.42	826.00	824.90	-5.39%	0	H
P130.2	130.2	130.0	SSPRC-18	III	3.59	43	36.95	826.40	824.90	-4.06%	0	H
P131.0	131.1	131.0	CP-24	III	11.28	100	106.75	794.94	794.00	-0.88%	0	H
P132.0	132.1	132.0	CP-24	V	28.78	217	223.06	792.50	791.35	-0.52%	0	H
P133.0	133.1	133.0	CPRC-24	V	30.93	176	188.00	791.60	790.66	-0.50%	8	H
P134.1	134.1	134.0	SSPRC-12	III	3.42	78	81.60	780.00	775.00	-6.13%	0	H
P134.2	134.2	134.1	SSPRC-12	III	3.42	10	5.50	780.30	780.10	-3.64%	0	H
P134.3	134.3	134.1	SSPRC-12	III	3.42	27	24.00	780.64	780.10	-2.25%	0	H
P135.0	135.1	135.0	CP-18	--	0.76	31	35.36	764.18	763.56	-1.75%	0	H
P136.0	136.1	136.0	PU-12	--	3.34	95	99.17	817.88	791.94	-26.16%	0	H
P137.0	137.1	137.0	PU-12	--	3.51	89	91.69	817.71	794.00	-25.86%	0	H

QUANTITIES SHOWN IN THE DRAINAGE TABLE QUANTITY SUMMARY

TABLE NOTE LEGEND:

- **A** RIM ELEVATION = FLANGE ELEVATION
- **B** OFFSET TO CENTER OF STRUCTURE
- **C** TOP OF STRUCTURE ELEVATION = RIM ELEVATION. RIM SUPRESS 2" INTO TOP OF STRUCTURE OR LID.
- **D** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 9" CASTING - 6" ADJUSTMENT RINGS).
- **E** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 10" CASTING - 6" ADJUSTMENT RINGS).
- **F** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 6" CASTING - 6" ADJUSTMENT RINGS).
- **G** STATION & OFFSET FOR ENDWALLS IS MEASURED AT END OF ENDWALL.
- **H** PIPE JOINT TIES ARE NOT A PAY ITEM. FOR INFORMATION ONLY.
- **I** SEE SDD FOR CONCRETE SURFACE DRAIN DROP INLET TYPE AT STRUCTURES.
- **J** EXISTING PIPE TO REMAIN
- **K** STRUCTURE AND COVER PLATE PLACED IN PREVIOUS PROJECT. REMOVE COVER PLATE,PLACE COVER AND RINGS AND SET TO FINAL PLAN RIM ELEVATION. REMOVAL AND DISPOSAL OF COVER PLATE IS INCIDENTAL TO ADJUSTMENT OF INLET OR MANHOLE.
- **N** INLET PLACED AS REVISION TO 3180-08-70 PROJECT DURING CONSTRUCTION.
- **O** MARKER POST CULVERT END FLEXABLE REQUIRED.
- **P** STRUCTURE REQUIRES FLAT SLAB TOP.
- **Q** PROVIDE OPENING IN FLAT SLAB TOP TO ACCOMMODATE A SINGLE INLET COVER TYPE "MS".
- **R** 3'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **S** 2'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **T** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-(08&14)-70 PLAN SET SUBSEQUENT UPDATE SHEETS.
- **U** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE PROJECT 3180-08-70 RSA UPDATE PLAN SET.
- **V** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-09-70 PLAN SET SUBSEQUENT UPDATE SHEETS.

ADD #1
REV SHT 215
6/29/2007

CONCRETE MEDIAN SLOPED NOSE

620.0300
CONCRETE MEDIAN SLOPED NOSE

STATION	OFFSET	LOCATION	SF
1123+98	RT	BYPASS	43
1124+76	LT	BYPASS	60
1124+85	LT	BYPASS	50
1124+98	LT	BYPASS	80
1125+06	RT	BYPASS	98
1125+17	RT	BYPASS	85
1125+83	LT	BYPASS	85
1125+95	LT	BYPASS	98
1126+02	RT	BYPASS	60
1126+14	RT	BYPASS	60
1126+26	RT	BYPASS	80
1127+01	LT	BYPASS	43
1129+44	LT	BYPASS	39
1171+54	RT	BYPASS	70
1172+56	RT	BYPASS	55
1176+48	LT	BYPASS	55
1177+50	LT	BYPASS	70
1273+71	RT	BYPASS	39
1284+74	LT	BYPASS	39
~~1368+05~~	~~RT~~	~~BYPASS~~	~~DELETE 39~~
~~1372+96~~	~~LT~~	~~BYPASS~~	~~DELETE 70~~
~~1373+38~~	~~RT~~	~~BYPASS~~	~~DELETE 70~~
~~1373+64~~	~~LT~~	~~BYPASS~~	~~DELETE 70~~
1398+38	LT	BYPASS	65
348+30	CL	STH 83	40
351+44	RT	STH 83	49
351+62	LT	STH 83	60
351+68	CL	STH 83	50
353+33	CL	STH 83	50
353+39	LT	STH 83	60
353+57	RT	STH 83	49
357+18	CL	STH 83	62
358+96	CL	STH 83	40
39+64	LT	CTH A SE RAMP	57
39+96	RT	CTH A SE RAMP	76
49+41	LT	CTH A SE RAMP	42
58+12	CL	CTH A NW RAMP	49
58+13	LT	CTH A NW RAMP	74
58+66	CL	CTH A NW RAMP	50
TOTAL			2082

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS. LAYOUT OF SHEET WAS CHANGED TO ACCOMMODATE NOTE UPDATES

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

ADJUSTING STRUCTURES

STRCT #	ROADWAY	LOCATION		STRCT TYPE - COVER TYPE	PROP GRND ELEV OR RIM ELEVATION	EXISTING TOP OF STRUCTURE ELEVATION	REQ'D ADJUSTMENT DEPTH (FT)	INLET PROTECTION TYPE	STRUCTURE ID FROM 3180-08-70, 3180-14-70 & 3180-09-70	NOTES
300.1	BYPASS	1172+50.00	70.5' LT	MH1-HM	762.32	761.33	0.49	C	6.1	K,T
300.2	BYPASS	1172+60.00	70.5' LT	INL3-HM	762.35	761.35	0.50	C	6.2	K,T
300.3	BYPASS	1174+00.00	70.5' LT	INL3-HM	762.90	761.91	0.49	C	6.3	K,T
301.1	STH 142 SW RAMP	40+65.00	9.5' RT	INL3-HM	762.04	761.05	0.49	C	22.1	K,T
301.2	STH 142 SW RAMP	40+75.00	9.5' RT	INL3-HM	762.04	761.05	0.49	C	22.2	K,T
301.3	STH 142 SW RAMP	40+65.00	11.4' LT	INL3-HM	762.01	761.01	0.50	C	22.3	K,T
301.4	STH 142 SW RAMP	40+75.00	10.1' LT	INL3-HM	762.01	761.02	0.49	C	22.4	K,T
301.5	BYPASS	1172+50.00	59.5' RT	MH3-HM	762.43	761.28	0.65	C	22.5	K,T
301.6	BYPASS	1175+00.00	70.5' RT	INL3-HM	763.40	761.25	1.65	C	22.6	K,T
302.1	STH 142 SW RAMP	42+70.00	9.5' RT	INL3-HM	764.57	763.57	0.50	C	21.1	K,T
302.2	STH 142 SW RAMP	42+80.00	9.5' RT	INL3-HM	764.83	763.84	0.49	C	21.2	K,T
302.3	STH 142 SW RAMP	42+70.00	34.5' RT	INL3-HM	764.98	763.91	0.57	C	21.3	K,T
302.4	STH 142 SW RAMP	42+70.00	9.5' LT	INL3-HM	764.57	763.57	0.50	C	21.4	K,T
302.5	STH 142 SW RAMP	42+70.00	34.5' LT	INL3-HM	764.13	763.13	0.50	C	21.5	K,T
303.1	STH 142 SW RAMP	45+50.00	34.5' LT	INL3-HM	771.81	770.82	0.49	C	23.1	K,T
303.2	STH 142 SW RAMP	45+50.00	9.5' LT	INL3-HM	772.69	771.70	0.49	C	23.2	K,T
303.3	STH 142 SW RAMP	45+50.00	9.5' RT	INL3-HM	772.69	771.70	0.49	C	23.3	K,T
303.4	STH 142 SW RAMP	45+50.00	34.5' RT	INL3-HM	773.57	772.57	0.50	C	23.4	K,T
304.1	BYPASS	1176+55.00	58.6' LT	INL3-HM	764.26	763.17	0.59	C	25.1	K,T
304.2	BYPASS	1176+54.50	69.1' LT	INL3-HM	764.22	763.22	0.50	C	25.2	K,T
304.3	BYPASS	1176+14.70	76.5' LT	INL3-HM	763.69	762.69	0.50	C	25.3	K,T
305.1	STH 142 NE RAMP	59+15.00	18.7' RT	INL3-HM	764.43	763.46	0.47	C	26.1	K,T
305.3	STH 142 NE RAMP	59+15.00	9.6' LT	INL3-HM	764.49	763.50	0.49	C	26.3	K,T
305.4	STH 142 NE RAMP	59+25.00	10.6' LT	INL3-HM	764.49	763.50	0.49	C	26.4	K,T
305.5	STH 142 NE RAMP	59+15.00	34.7' LT	INL3-HM	764.05	763.06	0.49	C	26.5	K,T
305.6	STH 142 NE RAMP	59+25.00	35.7' LT	INL3-HM	764.05	763.06	0.49	C	26.6	K,T
306.1	STH 142 NE RAMP	58+00.00	34.5' RT	INL3-HM	764.65	763.66	0.49	C	27.1	K,T
306.2	STH 142 NE RAMP	58+00.00	9.5' RT	INL3-HM	765.09	764.10	0.49	C	27.2	K,T
306.3	STH 142 NE RAMP	58+00.00	9.5' LT	INL3-HM	765.09	764.10	0.49	C	27.3	K,T
306.4	STH 142 NE RAMP	57+90.00	9.5' LT	INL3-HM	765.20	764.21	0.49	C	27.4	K,T
306.5	STH 142 NE RAMP	58+00.00	34.5' LT	INL3-HM	765.49	764.49	0.50	C	27.5	K,T
307.1	STH 142 NE RAMP	54+50.00	34.5' RT	INL3-HM	770.41	769.42	0.49	C	28.1	K,T
307.2	STH 142 NE RAMP	54+50.00	9.5' RT	INL3-HM	771.29	770.30	0.49	C	28.2	K,T
307.3	STH 142 NE RAMP	54+50.00	9.5' LT	INL3-HM	771.29	770.30	0.49	C	28.3	K,T
307.4	STH 142 NE RAMP	54+50.00	34.5' LT	INL3-HM	772.17	771.17	0.50	C	28.4	K,T
308.1	BYPASS	1273+80.00	19.5' RT	INL3-HM	805.62	804.57	0.55	C	14.1	K,T
308.2	BYPASS	1273+90.00	19.5' RT	INL3-HM	805.67	804.62	0.55	C	14.2	K,T
308.3	BYPASS	1273+80.00	15.8' RT	INL3-HM	805.91	804.93	0.48	C	14.3	K,T
308.4	BYPASS	1273+80.00	.7' RT	INL3-HM	805.70	804.71	0.49	C	14.4	K,T
308.5	BYPASS	1273+80.00	19.5' LT	INL3-HM	805.61	804.57	0.54	C	14.5	K,T
309.1	BYPASS	1276+50.00	19.5' LT	INL3-HM	807.03	806.04	0.49	C	15.1	K,T
309.2	BYPASS	1276+50.00	7.5' LT	INL3-HM	807.05	806.06	0.49	C	15.2	K,T
309.3	BYPASS	1276+50.00	7.5' RT	INL3-HM	807.15	806.11	0.54	C	15.3	K,T
309.4	BYPASS	1276+50.00	19.5' RT	INL3-HM	807.02	806.03	0.49	C	15.4	K,T
310.1	BYPASS	1281+00.00	19.5' LT	MH1-HM	809.02	808.03	0.49	C	30.1	K,T

CONT. ON NEXT PAGE

QUANTITIES SHOWN IN THE DRAINAGE TABLE QUANTITY SUMMARY

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS. LAYOUT OF SHEET WAS CHANGED TO ACCOMMODATE NOTE UPDATES

TABLE NOTE LEGEND:

- **A** RIM ELEVATION = FLANGE ELEVATION
- **B** OFFSET TO CENTER OF STRUCTURE
- **C** TOP OF STRUCTURE ELEVATION = RIM ELEVATION. RIM SUPRESS 2" INTO TOP OF STRUCTURE OR LID.
- **D** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 9" CASTING - 6" ADJUSTMENT RINGS).
- **E** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 10" CASTING - 6" ADJUSTMENT RINGS).
- **F** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 6" CASTING - 6" ADJUSTMENT RINGS).
- **G** STATION & OFFSET FOR ENDWALLS IS MEASURED AT END OF ENDWALL.
- **H** PIPE JOINT TIES ARE NOT A PAY ITEM. FOR INFORMATION ONLY.
- **I** SEE SDD FOR CONCRETE SURFACE DRAIN DROP INLET TYPE AT STRUCTURES.
- **J** EXISTING PIPE TO REMAIN
- **K** STRUCTURE AND COVER PLATE PLACED IN PREVIOUS PROJECT. REMOVE COVER PLATE,PLACE COVER AND RINGS AND SET TO FINAL PLAN RIM ELEVATION. REMOVAL AND DISPOSAL OF COVER PLATE IS INCIDENTAL TO ADJUSTMENT OF INLET OR MANHOLE.
- **N** INLET PLACED AS REVISION TO 3180-08-70 PROJECT DURING CONSTRUCTION.
- **O** MARKER POST CULVERT END FLEXABLE REQUIRED.
- **P** STRUCTURE REQUIRES FLAT SLAB TOP.
- **Q** PROVIDE OPENING IN FLAT SLAB TOP TO ACCOMMODATE A SINGLE INLET COVER TYPE "MS".
- **R** 3'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **S** 2'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **T** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-(08&14)-70 PLAN SET SUBSEQUENT UPDATE SHEETS.
- **U** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE PROJECT 3180-08-70 RSA UPDATE PLAN SET.
- **V** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-09-70 PLAN SET SUBSEQUENT UPDATE SHEETS.

CONTINUED

ADJUSTING STRUCTURES

STRCT #	ROADWAY	LOCATION		STRCT TYPE - COVER TYPE	PROP GRND ELEV OR RIM ELEVATION	EXISTING TOP OF STRUCTURE ELEVATION	REQ'D ADJUSTMENT DEPTH (FT)	INLET PROTECTION TYPE	STRUCTURE ID FROM 3180-08-70, 3180-14-70 & 3180-09-70	NOTES
310.2	BYPASS	1280+80.00	19.5' RT	INL3-HM	808.98	807.99	0.49	C	30.3	K,T
311.1	BYPASS	1283+60.00	19.5' RT	INL3-HM	808.34	807.34	0.50	C	259.1	K,T
311.2	BYPASS	1283+60.00	7.5' RT	INL3-HM	808.15	807.16	0.49	C	259.2	K,T
312.1	BYPASS	1284+70.00	19.5' LT	INL3-HM	807.87	806.79	0.58	C	260.1	K,T
312.2	BYPASS	1284+60.00	19.5' LT	INL3-HM	807.92	806.84	0.58	C	260.2	K,T
315.0	CTH A NW RAMP	57+60.00	6.0' LT	MH3-J	769.19	767.80	0.64	A	264.0	K,T
315.1	CTH A NW RAMP	57+00.00	9.5' LT	INL3-HM	769.33	768.33	0.50	C	264.1	K,T
315.2	CTH A NW RAMP	56+90.00	9.5' LT	INL3-HM	769.57	768.57	0.50	C	264.2	K,T
315.3	CTH A NW RAMP	57+80.00	9.5' LT	INL3-HM-S	768.59	767.59	0.50	C	413.1	K,U
316.1	CTH A NW RAMP	57+70.00	43.2' LT	INL3-HM	767.97	766.97	0.50	C	263.1	K,T
317.0	CTH A NW RAMP	57+60.00	34.5' RT	MH3-J	768.66	767.21	0.70	A	265.0	K,T
318.1	CTH A NW RAMP	54+25.00	34.5' RT	INL3-HM	778.41	777.41	0.50	C	268.1	K,T
318.2	CTH A NW RAMP	54+25.00	9.5' LT	INL3-HM	779.28	778.28	0.50	C	268.2	K,T
319.1	CTH A NW RAMP	51+20.00	34.5' RT	INL3-HM	790.21	789.33	0.38	C	269.1	K,T
319.2	CTH A NW RAMP	51+20.00	34.5' LT	INL3-HM	790.74	789.64	0.60	C	269.2	K,T
320.1	EB BYPASS	1405+00.00	34.5' RT	INL2-B	768.56	767.26	0.47	B	305.1	K,T
320.2	EB BYPASS	1405+50.00	34.5' RT	INL2-B	768.82	767.52	0.47	B	305.2	K,T
321.0	BYPASS	1284+50.00	14.5' LT	INL3-HM	807.91	806.91	0.50	C	260.3	K,N,T
323.0	STH 36/83 NB TO SB RAMP	203+67.96	26.8' LT	INL1-B	768.55	767.22	0.50	B	402.0	K,N,V
324.0	STH 36/83 NB TO SB RAMP	196+00.00	20.5' LT	INL3-HM	794.91	793.91	0.50	C	301.3	K,N,V
325.0	CTH A SE RAMP	40+00.81	46.9' RT	INL3-HM-S	785.26	784.26	0.50	C	401.0	K,U
325.1	CTH A SE RAMP	40+09.55	42.0' RT	INL3-HM-S	785.35	784.35	0.50	C	401.1	K,U
326.0	BYPASS	1363+51.95	60.4' RT	INL3-HM	785.52	784.52	0.50	C	403.0	K,U
326.1	BYPASS	1364+16.63	58.6' RT	INL3-HM	784.34	783.34	0.50	C	403.1	K,U
326.2	BYPASS	1364+85.24	70.5' RT	INL3-HM	782.72	781.72	0.50	C	403.2	K,U
327.1	CTH A SE RAMP	42+73.59	34.5' LT	INL3-HM	787.50	786.50	0.50	C	404.1	K,U
327.2	CTH A SE RAMP	42+73.59	9.5' RT	INL3-HM	788.42	787.42	0.50	C	404.2	K,U
327.3	CTH A SE RAMP	42+83.59	9.5' RT	INL3-HM	788.62	787.62	0.50	C	404.3	K,U
328.1	CTH A SE RAMP	45+00.00	34.5' LT	INL3-HM-S	790.47	789.47	0.50	C	405.1	K,U
328.2	CTH A SE RAMP	45+10.00	34.5' LT	INL3-HM-S	790.52	789.52	0.50	C	405.2	K,U
328.3	CTH A SE RAMP	45+00.00	9.5' LT	INL3-HM	791.35	790.35	0.50	C	405.3	K,U
328.4	CTH A SE RAMP	45+00.00	9.5' RT	INL3-HM	791.45	790.45	0.50	C	405.4	K,U
328.5	CTH A SE RAMP	45+00.00	34.5' RT	INL3-HM	792.33	791.33	0.50	C	405.5	K,U
329.1	CTH A SE RAMP	48+00.00	34.5' LT	INL3-HM	792.41	791.41	0.50	C	407.1	K,U
329.2	CTH A SE RAMP	48+95.89	34.5' LT	INL3-HM	793.74	792.74	0.50	C	407.2	K,U
330.1	CTH A SE RAMP	48+40.00	34.5' RT	INL3-HM-S	793.14	792.14	0.50	C	408.1	K,U
330.2	CTH A SE RAMP	48+50.00	34.5' RT	INL3-HM-S	793.14	792.14	0.50	C	408.2	K,U
330.3	CTH A SE RAMP	48+40.00	2.5' LT	INL3-HM	793.25	792.25	0.50	C	408.3	K,U
331.1	CTH A NW RAMP	57+05.73	34.5' RT	INL3-HM-S	768.80	767.80	0.50	C	414.1	K,U
331.2	CTH A NW RAMP	56+95.73	34.5' RT	INL3-HM-S	769.01	768.01	0.50	C	414.2	K,U
331.3	CTH A NW RAMP	57+05.73	9.5' RT	INL3-HM-S	769.24	768.24	0.50	C	414.3	K,U
331.4	CTH A NW RAMP	56+95.73	9.5' RT	INL3-HM-S	769.45	768.45	0.50	C	414.4	K,U

QUANTITIES SHOWN IN THE DRAINAGE TABLE QUANTITY SUMMARY

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS.
LAYOUT OF SHEET WAS CHANGED TO ACCOMMODATE NOTE UPDATES

ADJUSTMENT TO STRUCTURE# 322.0 NO LONGER REQUIRED

TABLE NOTE LEGEND:

- **A** RIM ELEVATION = FLANGE ELEVATION
- **B** OFFSET TO CENTER OF STRUCTURE
- **C** TOP OF STRUCTURE ELEVATION = RIM ELEVATION. RIM SUPRESS 2" INTO TOP OF STRUCTURE OR LID.
- **D** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 9" CASTING - 6" ADJUSTMENT RINGS).
- **E** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 10" CASTING - 6" ADJUSTMENT RINGS).
- **F** TOP OF STRUCTURE ELEVATION BASED ON (RIM ELEVATION - 6" CASTING - 6" ADJUSTMENT RINGS).
- **G** STATION & OFFSET FOR ENDWALLS IS MEASURED AT END OF ENDWALL.
- **H** PIPE JOINT TIES ARE NOT A PAY ITEM. FOR INFORMATION ONLY.
- **I** SEE SDD FOR CONCRETE SURFACE DRAIN DROP INLET TYPE AT STRUCTURES.
- **J** EXISTING PIPE TO REMAIN
- **K** STRUCTURE AND COVER PLATE PLACED IN PREVIOUS PROJECT. REMOVE COVER PLATE, PLACE COVER AND RINGS AND SET TO FINAL PLAN RIM ELEVATION. REMOVAL AND DISPOSAL OF COVER PLATE IS INCIDENTAL TO ADJUSTMENT OF INLET OR MANHOLE.
- **N** INLET PLACED AS REVISION TO 3180-08-70 PROJECT DURING CONSTRUCTION.
- **O** MARKER POST CULVERT END FLEXABLE REQUIRED.
- **P** STRUCTURE REQUIRES FLAT SLAB TOP.
- **Q** PROVIDE OPENING IN FLAT SLAB TOP TO ACCOMMODATE A SINGLE INLET COVER TYPE "MS".
- **R** 3'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **S** 2'0" OPENING REQUIRED ON FLAT SLAB TOP TO ACCOMMODATE INLET COVER.
- **T** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-(08&14)-70 PLAN SET SUBSEQUENT UPDATE SHEETS.
- **U** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE PROJECT 3180-08-70 RSA UPDATE PLAN SET.
- **V** DRAINAGE STRUCTURE NUMBER LISTED IN THE COLUMN TO THE LEFT REFERERS TO THE ORIGINAL PROJECT# 3180-09-70 PLAN SET SUBSEQUENT UPDATE SHEETS.

CONCRETE CURB & GUTTER

STATION	LOCATION	RDWY	601.0554 CONCRETE CURB & GUTTER 4-INCH MOUNTABLE 36-INCH TYPE D LF	601.0558 CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CURB, GUTTER AND CURB & GUTTER LF
1123+05 - 1130+50	MEDIAN	EB BYPASS	--	1,264	--	1,264
1130+08 - 1130+75	MEDIAN	EB BYPASS	67	--	--	67
1123+05 - 1129+44	MEDIAN	WB BYPASS	--	1,102	--	1,102
1127+47 - 1128+50	LT	WB BYPASS	81	--	--	81
1171+54 - 1172+56	RT	EB BYPASS	--	122	--	122
1173+23 - 1178+23	RT	EB BYPASS	--	500	--	500
1172+00 - 1175+81	LT	WB BYPASS	--	381	--	381
1176+48 - 1177+50	LT	WB BYPASS	--	122	--	122
1273+71 - 1278+35	MEDIAN	EB BYPASS	--	869	--	869
1280+10 - 1286+75	MEDIAN	EB BYPASS	--	1,208	--	1,208
1271+70 - 1278+35	MEDIAN	WB BYPASS	--	1,208	--	1,208
1280+10 - 1284+74	MEDIAN	WB BYPASS	--	869	--	869
~~1368+05 - 1373+38~~	~~MEDIAN~~	~~EB BYPASS~~	~~--~~	~~1,096~~	~~--~~	~~DELETE 1096~~
~~1373+65 - 1375+08~~	~~MEDIAN~~	~~EB BYPASS~~	~~--~~	~~156~~	~~--~~	~~DELETE 156~~
~~1365+80 - 1372+96~~	~~MEDIAN~~	~~WB BYPASS~~	~~--~~	~~1,334~~	~~--~~	~~DELETE 1334~~
~~1373+65 - 1374+75~~	~~MEDIAN~~	~~WB BYPASS~~	~~--~~	~~120~~	~~--~~	~~DELETE 120~~
1364+35 - 1369+25	RT	EB BYPASS	--	490	--	490
1367+50 - 1369+65	LT	WB BYPASS	--	215	--	215
1398+34 - 1400+50	LT	WB BYPASS	--	216	--	216
344+00 - 344+94	LT	STH 83	--	94	--	94
344+00 - 351+66	RT	STH 83	--	814	--	814
345+06 - 351+66	LT	STH 83	--	687	--	687
346+89	DRIVE RT	STH 83	--	68	--	68
348+80 - 351+68	MEDIAN	STH 83	--	601	--	601
351+44 - 351+81	ISLAND RT	STH 83	--	127	--	127
351+62 - 352+17	ISLAND LT	STH 83	--	310	--	310
352+84 - 353+39	ISLAND RT	STH 83	--	310	--	310
353+20 - 353+57	ISLAND LT	STH 83	--	127	--	127
352+77 - 361+25	RT	STH 83	--	961	--	961
353+36 - 360+49	LT	STH 83	--	787	--	787
353+33 - 357+18	MEDIAN	STH 83	--	801	--	801
360+69	DRIVE RT	STH 83	--	20	--	20
360+85 - 361+25	LT	STH 83	--	75	--	75
361+25 - 369+35	LT	STH 83	--	--	810	810
361+25 - 369+35	RT	STH 83	--	--	810	810
50+11 - 60+17	LT	STH 142 NE RAMP	--	1,113	--	1,113
50+42 - 59+67	RT	STH 142 NE RAMP	--	1,890	--	1,890
50+66 - 60+01	MEDIAN	STH 142 NE RAMP	--	981	--	981
39+38 - 49+89	RT	STH 142 SW RAMP	--	1,158	--	1,158
39+54 - 49+34	MEDIAN	STH 142 SW RAMP	--	1,978	--	1,978
39+88 - 49+58	LT	STH 142 SW RAMP	--	1,026	--	1,026
91+26 - 93+29	LT	KETTERHAGEN RD	--	203	--	203
91+45 - 93+71	RT	KETTERHAGEN RD	--	226	--	226

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

CONTINUED

CONCRETE CURB & GUTTER

STATION	LOCATION	RDWY	601.0554 CONCRETE CURB & GUTTER 4-INCH MOUNTABLE 36-INCH TYPE D LF	601.0558 CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CURB, GUTTER AND CURB & GUTTER LF
39+63 - 49+75	RT	CTH A SE RAMP	--	1,125	--	1,125
39+63 - 49+75	LT	CTH A SE RAMP	--	1,045	--	1,045
39+60 - 49+44	MEDIAN	CTH A SE RAMP	--	2,066	--	2,066
50+24 - 58+14	LT	CTH A NW RAMP	--	915	--	915
~~50+24 - 58+14~~	~~RT~~	~~CTH A NW RAMP~~	~~--~~	~~810~~	~~--~~	~~810~~
~~50+58 - 58+06~~	~~MEDIAN~~	~~CTH A NW RAMP~~	~~--~~	~~1,517~~	~~--~~	~~1,517~~
50+24 - 58+06	RT	CTH A NW RAMP	--	722	--	722
50+58 - 58+16	MEDIAN	CTH A NW RAMP	--	1,529	--	1,529
196+00 - 198+00	LT	STH 36/83 NB-SB RAMP	--	200	--	200
201+50 - 203+68	LT	STH 36/83 NB-SB RAMP	--	237	--	237
TOTAL			148	35,795	1,620	34,857

CONCRETE SIDEWALK 4-INCH

RDWY	LOCATION	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
STH 83	SW QUADRANT	10	8
	SW ISLAND	30	8
	EB LT TURN LANE	20	8
	NW QUADRANT	10	8
	NW ISLAND	30	8
	NE QUADRANT	10	8
	NE ISLAND	30	8
	WB LT TURN LANE	20	8
	SE QUADRANT	10	8
	SE ISLAND	30	8
TOTAL		200	80

ADD #1
REV SHT 217
6/29/2007

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS.

PROJECT NUMBER: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET NO: 217	E

FILE NAME: S:\DOT\DOT_SE\04081\WORK FOR 09\ESTIMATES\04081_MISCQUANT_09.ppt
ORIGINATOR: JUSTIN M. ARNDT
ORIG. DATE: MARCH 3, 2006
PLOTTED DATE: 6/13/2007 11:44 AM

MARKER POSTS RIGHT OF WAY

RIGHT-OF-WAY PLAT SHEET NUMBER	POINT NUMBERS	614.0605 MARKER POSTS RIGHT OF WAY EACH
4.13	8301-8304	4
	8202	1
	8205	1
	21402	1
	20402	1
	21501-21503	3
	20501-20502	2
	20505	1
	20508	1
	6902-6905	4
	6804-6805	2
	21810-21811	2
	21807	1
	21802-21803	2
	21501-21503	3
4.14	18601	1
	3005	1
	3006	1
	18602-18603	2
	6506	1
	6401	1
	6601	1
	4902	1
	6711-6712	2
	6707-6708	2
	18801	1
	6706	1
	6709-6710	2
	3004	1
	7003	1
4.15	18607	1
	6201-6204	4
	6102	1
	6104	1
	5904	1
	5804	1

RIGHT-OF-WAY PLAT SHEET NUMBER	POINT NUMBERS	614.0605 MARKER POSTS RIGHT OF WAY EACH
4.15 (cont'd)	5304	1
	5301-5302	2
	5502	1
	5002-5003	2
	5506	1
4.16	4225-4229	5
	3034	1
	4401-4402	2
	4501-4502	2
	4701-4702	2
	4244	1
	4801-4803	3
	4806-4807	2
	4210	1
	4212-4215	4
	4217-4219	3
4.17	3035	1
	3037-3038	2
	4002	1
	3007	1
	4104	1
	4238	1
4.18	3802	1
	3810	1
	3803	1
	3008	1
	3508	1
	3503-3504	2
	3506	1
	3812	1
	3807	1
	3811	1
	3808	1
4.19	3010	1
	3012	1
	3014	1

RIGHT-OF-WAY PLAT SHEET NUMBER	POINT NUMBERS	614.0605 MARKER POSTS RIGHT OF WAY EACH
4.19 (cont'd)	3040	1
	3206	1
	3016	1
	3015	1
	3205	1
	3039	1
	3013	1
	3011	1
	3009	1
4.20	17403-17404	2
	2306-2307	2
	3041	1
	3017	1
	2310-2311	2
	2201	1
	2203	1
	3203-3204	2
	3207-3211	5
4.21	3018-3019	2
	2001-2002	2
	2105-2106	2
	3020	1
	3042	1
4.22	1606	1
	1600-1601	2
	1504	1
	1301	1
	3023	1
	1203-1205	3
	2102-2104	3
	3021-3022	2
	2003-2007	5
4.23	3029	1
	3027	1
	3024-3025	2
	1302	1

RIGHT-OF-WAY PLAT SHEET NUMBER	POINT NUMBERS	614.0605 MARKER POSTS RIGHT OF WAY EACH
4.23 (cont'd)	1304-1305	2
	21001	1
	3026	1
	3028	1
4.24	510-515	6
	502-503	2
	522-523	2
	531	1
	22311	1
	22310	1
	3030-3031	2
	21002	1
	21006	1
	1107-1108	2
	1103-1104	2
	1101	1
4.25	20201-20203	3
	602	1
	21101	1
	20312	1
	21014	1
	21009	1
	22309	1
4.26	501	1
	3032-3033	2
	517-518	2
4.27	108	1
	15802	1
	402	1
	311	1
4.28	303-310	8
	111	1
	103	1
	109	1
TOTAL		226

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS.

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

RESTORATION

STATION	OFFSET	LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	631.1000 SOD LAWN SY	629.0210 FERTILIZER TYPE B CWT	629.0205 FERTILIZER TYPE A CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0130 SEEDING MIXTURE NO. 30 LB	630.0300 SEEDING BORROW PIT LB
1123+94 - 1132+50	RT	BYPASS		4,406	5,246		3.60		143.39	15.41	
1123+94 - 1132+50	LT	BYPASS		2,575	3,039		2.08		83.06	8.52	
1123+94 - 1125+00	MEDIAN	BYPASS		386	386		0.26		10.57		
1126+00 - 1132+50	MEDIAN	BYPASS	1,852		2,233		1.54		50.63	6.99	
1142+79 - 1178+24	MEDIAN	BYPASS			7,445		5.11			136.55	
1142+87 - 1172+00	LT	BYPASS			3,262		2.25			59.85	
1143+02 - 1170+80	RT	BYPASS			2,917		2.01			53.50	
1178+24 - 1270+95	MEDIAN	BYPASS			20,767		14.50			380.93	
1178+24 - 1277+86	LT	BYPASS			10,500		7.22			191.87	
1178+24 - 1277+86	RT	BYPASS			10,500		7.22			191.87	
1270+95 - 1278+86	MEDIAN	BYPASS	2,045		2,045		1.41		55.91		
1279+59 - 1287+50	MEDIAN	BYPASS	2,015		2,015		1.38		55.07		
1280+59 - 1326+00	LT	BYPASS			4,768		3.27			87.46	
1280+59 - 1326+00	RT	BYPASS			4,768		3.27			87.46	
1287+50 - 1326+00	MEDIAN	BYPASS			8,624		5.92			158.19	
1326+00 - 1334+00	LT	BYPASS		2,739	3,590		2.46		97.84	15.41	
1326+00 - 1334+00	RT	BYPASS		4,422	5,262		3.62		143.82	15.41	
1326+00 - 1334+00	MEDIAN	BYPASS		2,234	4,027		2.77		110.07	32.87	
1334+00 - 1371+98	LT	BYPASS			3,988		2.74			73.15	
1334+00 - 1362+45	RT	BYPASS			2,987		2.05			54.79	
1334+00 - 1375+30	MEDIAN	BYPASS			9,252		6.35			169.69	
~~1365+05 - 1375+30~~	~~MEDIAN~~	~~BYPASS~~	~~DEL 2125~~		~~DEL 2125~~		~~DEL 1.46~~		~~DEL 58.09~~		
1374+44 - 1388+82	LT	BYPASS			1,510		1.04			27.69	
1369+76 - 1389+78	RT	BYPASS			2,102		1.44			38.56	
1375+30 - 1389+24	MEDIAN	BYPASS			3,123		2.15			57.28	
1393+55 - 1415+00	MEDIAN	BYPASS			4,805		3.30			88.14	
1394+69 - 1405+30	RT	BYPASS			1,114		0.76			20.44	
1400+50 - 1404+50	LT	BYPASS			420		0.28			7.70	
1405+50 - 1408+96	LT	BYPASS			363		0.25			6.67	
1409+40 - 1415+00	RT	BYPASS			588		0.40			10.79	
340+80 - 351+50	RT	STH 83		5,747	5,908		4.05		161.50	2.97	
340+80 - 351+50	LT	STH 83		6,302	6,537		4.49		178.70	4.31	
340+80 - 351+50	MEDIAN	STH 83	437			437		0.36			
352+50 - 369+35	RT	STH 83		4,367	4,367		3.00		119.36		
352+50 - 369+35	LT	STH 83		5,255	5,255		3.61		143.65		
352+50 - 369+35	MEDIAN	STH 83	663			663		0.64			
97+00 - 104+06	RT	BREVER RD		3,698	4,102		2.81		112.14	7.40	
97+00 - 104+06	LT	BREVER RD		3,901	4,305		2.95		117.67	7.40	
106+18 - 118+00	RT	BREVER RD		6,756	7,432		5.25		203.65	12.39	
106+18 - 118+00	LT	BREVER RD		7,966	8,642		5.93		236.71	12.39	

CONTINUED ON NEXT PAGE

ADD #1
REV SHT 221
6/29/2007

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS.

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

CONTINUED

STATION	OFFSET	LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	631.1000 SOD LAWN SY	629.0210 FERTILIZER TYPE B CWT	629.0205 FERTILIZER TYPE A CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0130 SEEDING MIXTURE NO. 30 LB	630.0300 SEEDING BORROW PIT LB
101+08 - 117+54	LT	STH 142			1,056		0.73			19.38	
101+08 - 117+54	RT	STH 142			1,056		0.73			19.38	
120+27 - 143+39	LT	STH 142			1,484		1.01			27.21	
120+27 - 143+39	RT	STH 142			1,484		1.01			27.21	
50+24 - 60+14	LT	STH 142 NE RAMP			924		0.63			16.95	
50+24 - 59+65	RT	STH 142 NE RAMP			769		0.52			14.09	
50+70 - 60+03	MEDIAN	STH 142 NE RAMP	1,888		1,888		1.30		51.61		
39+40 - 49+86	RT	STH 142 SW RAMP			977		0.68			17.91	
39+52 - 49+30	MEDIAN	STH 142 SW RAMP	1,949		1,949		1.34		53.30		
39+90 - 49+55	LT	STH 142 SW RAMP			789		0.55			14.46	
100+75 - 104+25	RT	MT TOM RD			201		0.14			3.67	
100+91 - 104+25	LT	MT TOM RD			191		0.13			3.50	
115+67 - 126+85	RT	STH 11			574		0.39			10.53	
115+67 - 126+85	LT	STH 11			574		0.39			10.53	
129+71 - 133+02	RT	STH 11			170		0.12			3.11	
133+65 - 161+00	RT	STH 11			1,404		0.96			25.75	
142+00 - 168+00	LT	STH 11			1,335		0.92			24.48	
91+00 - 100+34	LT	KETTERHAGEN RD		8,296	8,831		6.10		242.40	9.79	
91+00 - 100+34	RT	KETTERHAGEN RD		7,892	8,425		5.85		230.30	9.79	
102+51 - 110+75	LT	KETTERHAGEN RD		6,385	6,857		4.71		187.42	8.65	
102+51 - 110+75	RT	KETTERHAGEN RD		6,130	6,601		4.53		180.44	8.65	
37+69 - 52+32	LT	CTH A			785		0.53			14.40	
37+69 - 52+32	RT	CTH A			785		0.53			14.40	
54+52 - 70+25	LT	CTH A			844		0.58			15.48	
54+52 - 64+50	RT	CTH A			392		0.27			7.18	
48+00 - 49+79	LT	OLD CTH A			102		0.07			1.87	
48+00 - 49+79	RT	OLD CTH A			102		0.07			1.87	
40+43 - 49+00	RT	CTH A SE RAMP			800		0.55			14.67	
40+71 - 49+00	LT	CTH A SE RAMP			774		0.53			14.19	
40+43 - 49+00	MEDIAN	CTH A SE RAMP	1,767		1,767		1.21		22.70		
50+24 - 58+14	LT	CTH A NW RAMP			737		0.50			13.52	
50+24 - 58+14	RT	CTH A NW RAMP			737		0.50			13.52	
50+62 - 58+06	MEDIAN	CTH A NW RAMP	1,512		1,512		1.04		22.70		
50+18 - 52+00	LT	RIVER RD			104		0.08			1.90	
50+88 - 52+00	RT	RIVER RD			64		0.04			1.18	
196+00 - 204+10	RT	STH 36/83 NB-SB RAMP			747		0.51			14.00	
198+00 - 201+35	LT	STH 36/83 NB-SB RAMP			329		0.23			6.02	
UNDISTRIBUTED		BORROW PIT			13,417		9.50				370.00
TOTAL			16253	89457	250379	1100	173	1	3073	2426	370

ADD #1
REV SHT 222
6/29/2007

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS.

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

EROSION CONTROL

STATION	OFFSET	LOCATION	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.7504 TEMPORARY DITCH CHECKS LF	631.1100 SOD EROSION CONTROL SY	SPV.0060.04 EROSION CONTROL FILTER BAGS EA	*SPV.0180.01 GEOTEXTILE FABRIC TYPE FF SY
340+80 - 352+00	LT	STH 83		278	278	1,006	93	96	21		
340+80 - 352+00	RT	STH 83	40	170	170	1,109		80	42		
353+00 - 369+35	LT	STH 83		526	526	748	67		21		
353+00 - 369+35	RT	STH 83		889	889	152			11		
97+00 - 104+50	LT	BREVER RD	215	762	762	1,105					
97+00 - 104+50	RT	BREVER RD				1,673	392	144			
106+00 - 118+00	LT	BREVER RD		536	536	5,909			21		
106+00 - 118+00	RT	BREVER RD	106	605	605	5,026			68		
99+00 - 100+50	LT	KETTERHAGEN RD				5,051		16	21		
99+00 - 100+50	RT	KETTERHAGEN RD				6,474	244	48	11		
102+00 - 110+75	LT	KETTERHAGEN RD		356	356	4,425	389	64			
102+00 - 110+75	RT	KETTERHAGEN RD		307	307	4,500	459	84			
1326+00 - 1334+00	LT	BYPASS				1,001					
1326+00 - 1334+00	RT	BYPASS				1,547		108	19		
UNDISTRIBUTED			140	1,107	1,107	9,974	456	160	65	250	400
TOTAL			501	5,536	5,536	49,700	2,100	800	300	250	400

LANDMARK REFERENCE MONUMENTS

STATION	LOCATION	RDWY	621.0100 LANDMARK REFERENCE MONUMENTS EACH
1128+99.48	PC	BYPASS R/L	1
1149+27.38	PT	BYPASS R/L	1
1237+87.99	PC	BYPASS R/L	1
1261+69.12	PT	BYPASS R/L	1
1316+73.01	PI	BYPASS R/L	1
1331+50.03	PC	BYPASS R/L	1
1370+04.32	PT	BYPASS R/L	1
1387+17.67	PC	BYPASS R/L	1
1410+56.99	PT	BYPASS R/L	1
345+00.00	PI	STH 83 R/L	1
349+21.11	PI	STH 83 R/L	1
358+57.12	PI	STH 83 R/L	1
106+20.48	PI	STH 142 R/L	1
132+33.29	PI	STH 142 R/L	1
140+24.74	PI	STH 142 R/L	1
119+45.90	PI	STH 11 R/L	1
121+86.20	PI	STH 11 R/L	1
133+78.25	PI	STH 11 R/L	1
135+50.00	PI	STH 11 R/L	1
137+90.30	PI	STH 11 R/L	1
152+90.76	PI	STH 11 R/L	1
166+33.80	PI	STH 11 R/L	1
TOTAL			22

ADD #1
REV SHT 223
6/29/2007

FIELD FACILITIES

LOCATION	642.5401 FIELD OFFICE TYPE D EACH	642.6001 FIELD LABORATORY EACH
PROJECT 3180-10-70	1	1
TOTAL	1	1

MOBILIZATIONS

LOCATION	619.1000 MOBILIZATION EACH	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT 3180-10-70	1		
UNDISTRIBUTED		10	15
	1	10	15

INLET PROTECTION

PROJECT 3180-10-70	628.7005 * INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7550 CULVERT PIPE DITCH CHECK EACH
SEE DRAINAGE TABLE FOR LOCATIONS	54	15	149	
UNDISTRIBUTED				10
TOTAL	54	15	149	10

* QUANTITIES LISTED ELSEWHERE

INLET PROTECTION

PROJECT 3180-10-70	628.7005 * INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7550 CULVERT PIPE DITCH CHECK EACH
SEE DRAINAGE TABLE FOR LOCATIONS	54	15	149	
UNDISTRIBUTED				10
TOTAL	54	15	149	10

* QUANTITIES LISTED ELSEWHERE

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS.

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

TEMPORARY STREAM DIVERSION

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

	512.1000 PILING SHEET STEEL TEMPORARY SF	520.4072 CULVERT PIPE TEMPORARY 72-INCH LF	*603.0500 CONCRETE BARRIER TEMPORARY PRECAST CONTRACTOR FURNISHED AND DELIVERED LF	*603.0801 CONCRETE BARRIER TEMPORARY PRECAST CONTRACTOR INSTALLED LF	628.1104* EROSION BALES EA	628.5505 POLYETHYLENE SHEETING SY	650.6000* CONSTRUCTION STAKING PIPE CULVERTS EA	SPV.0060.05 SAND BAGS EA	SPV.0105.03 TEMPORARY DIVERSION CHANNEL LS	*SPV.0180.01 FABRIC TYPE FF SY	SPV.0195.01 WASHED STONE TONS
BOX CULVERT EXTENSION	3570	110	60	60	380	2534	1	2040	1	1440	18
TOTAL	**3570**	**110**	**60**	**60**	**380**	**2534**	**1**	**2040**	**1**	**1440**	**18**

* QUANTITIES LISTED ELSEWHERE

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS.

3

RIPRAP MEDIUM AND GEOTEXTILE FABRIC TYPE HR

STATION		STATION	OFFSET	STRCT#	PIPE TYPE / SIZE	LOCATION	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY
	-		RT	122.0	SSPRC-12	STH 83	14.7	11.3
	-		RT	120.0	SSPRC-12	STH 83	14.7	11.3
	-		RT	118.0	SSPRC-12	STH 83	14.7	11.3
	-		RT	117.0	SSPRC-12	STH 83	14.7	11.3
	-		RT	114.0	SSPRC-18	BYPASS	22.7	15.3
	-		RT	116.0	SSPRC-12	STH 83	14.7	11.3
	-		RT	134.0	SSPRC-12	BYPASS	14.7	11.3
	-		LT	113.0	SSPRC-12	STH 83	14.7	11.3
	-		LT	108.1	SSPRC-24	STH 83	33.7	20.6
	-		LT	104.0	SSPRC-12	STH 83	14.7	11.3
	-		LT	103.0	SSPRC-12	STH 83	14.7	11.3
	-		LT	123.0	CP-18	BREVER RD	31.0	19.2
102+50.00	-	103+00.00	RT		DITCH	STH 83	58.4	157.0
	-		LT	124.1	PU-12	BREVER RD	14.7	11.3
	-		RT	125.1	PU-12	BREVER RD	14.7	11.3
	-		LT	126.0	CP-24	BREVER RD	45.8	25.9
	-		LT	127.0	CP-24	BREVER RD	45.8	25.9
93+62.79	-	95+93.27	LT		DITCH	KETTERHAGEN RD	134.4	422.0
	-		LT	132.0	CP-24	SB RAMP	45.8	25.9
1333+65.74	-	1334+12.72	RT		DITCH	BYPASS	54.8	150.2
		1369+57.00	LT		FLUME END	BYPASS	3.5	16.4
		1369+68.00	RT		FLUME END	BYPASS	3.5	16.4
						TOTAL	641	1019

STONE OR ROCK DITCH CHECKS & GEOTEXTILE FABRIC SAS

STATION		STATION	OFFSET	LOCATION	COUNT	628.7560S STONE OR ROCK DITCH CHECKS CY	645.0140 GEOTEXTILE FABRIC TYPE SAS SY
94+00.00	-	95+00.00	RT	KETTERHAGEN RD	6.0	66	150
105+25.00	-	108+25.00	RT	KETTERHAGEN RD	10.0	111	250
105+25.00	-	107+75.00	LT	KETTERHAGEN RD	8.0	88	200
				TOTAL		265	600

DELINEATOR POSTS STEEL & DELINEATORS

STATION		STATION	LOCATION	ROADWAY	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATORS WHITE EACH	YELLOW EACH
1129+00	-	1132+00	RT	EB BYPASS	4	4	
1143+40	-	1149+50	RT	EB BYPASS	7	7	
1143+30	-	1149+50	RT	WB BYPASS	7		7
52+00	-	60+00	LT	STH 142 NE RAMP	19	19	
39+50	-	48+80	RT	STH 142 SW RAMP	19	19	
1237+80	-	1262+30	RT	EB BYPASS	26	26	
1237+80	-	1262+30	RT	WB BYPASS	26		26
1314+70	-	1318+65	RT	EB BYPASS	5	5	
1314+70	-	1318+70	RT	WB BYPASS	5	5	
1331+50	-	1370+20	RT	EB BYPASS	40	40	
1331+50	-	1369+50	RT	WB BYPASS	39		39
51+50	-	58+00	LT	CTH A NW RAMP	19	19	
39+60	-	47+83	RT	CTH A SE RAMP	15	15	
1382+50	-	1389+40	LT	EB BYPASS	8		8
1394+20	-	1412+50	LT	EB BYPASS	19		19
1398+50	-	1408+60	LT	WB BYPASS	11	11	
206+00	-	209+00	RT	STH 36/83 NB TO SB RAMP	4	4	
213+80	-	220+80	RT	STH 36/83 NB TO SB RAMP	8	8	
198+00	-	207+00	RT	STH 36/83 SB RAMP	10		10
					291	182	109

FILE NAME: S:\DOT\DOT_SE\04081\WORK FOR 09\ESTIMATES\04081_MISCQUANT_09.ppt ORIGINATOR: JUSTIN M. ARNDT ORIG. DATE: MARCH 3, 2006 PLOTTED DATE: 6/13/2007 11:44 AM

PERMANENT SIGNING

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS WOOD 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
P057	R6-2L	36 X 48	1						12.00				
P061	D1-1	96 X 21	2						14.00				SEE DETAIL
P064	W12-1	24 X 24	1						4.00				2' MOUNTING HEIGHT
P069	M1-94	108 X 21	2						15.75				SEE DETAIL
P070	R3-56	36 X 48		1					12.00				
P071	J3-1	36 X 81			1								Place Assembly Under Signal P071
	M1-6	36 X 36							9.00				ASSEMBLY "11" P071
	M3-4	30 X 15							3.13				ASSEMBLY "WEST" P071
	M6-1	30 X 30							6.25				ASSEMBLY LT ARROW P071
P072	R6-2L	24 X 30	1						5.00				
P073	R6-2L	24 X 30	1						5.00				
P074	R6-2L	24 X 30	1						5.00				
P075	R6-2L	24 X 30	1						5.00				
P076	D1-1	96 X 21	2						14.00				SEE DETAIL
P076A	M1-94	84 X 21	2						12.25				SEE DETAIL
P077	W13-2A	48 X 90				1			30.00				10 MPH Modified for Right Turn
P078	W4-2R	48 X 48		1					16.00				
P079	W4-3	48 X 48		1					16.00				
P080	W1-6	60 X 30	1						12.50				
P083	W1-6	60 X 30	1						12.50				
P084	W4-3	48 X 48		1					16.00				
P085	W4-2R	48 X 48		1					16.00				
P088	J2-2	72 X 81			2								Double Post Assembly P088
	M1-6	36 X 36							9.00				ASSEMBLY "83" P088
	M1-6	36 X 36							9.00				ASSEMBLY "50" P088
	M3-4	30 X 15							3.13				ASSEMBLY "SOUTH" P088
	M3-3	30 X 15							3.13				ASSEMBLY "TO" P088
	M5-1L	30 X 30							6.25				ASSEMBLY LT TURN ARROW P088
	M5-1L	30 X 30							6.25				ASSEMBLY LT TURN ARROW P088
P089	M1-94	72 X 21	2						10.50				SEE DETAIL
P090	M1-94	72 X 21	2						10.50				SEE DETAIL
P091	W20-7b	48 X 48		1					16.00				
P092	W20-7b	48 X 48		1					16.00				
P093	J3-2	72 X 81				2							Double Post Assembly P093
	M1-6	36 X 36							9.00				ASSEMBLY "11" P093
	M1-6	36 X 36							9.00				ASSEMBLY "36" P093
	M3-4	30 X 15							3.13				ASSEMBLY "WEST" P093
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P093
	M6-1	30 X 30							6.25				ASSEMBLY FORWARD ARROW P093
	M6-1	30 X 30							6.25				ASSEMBLY FORWARD ARROW P093
	MO6-1	30 X 30							6.25				ORANGE TEMP RT ARROW P093
	MO6-1	30 X 30							6.25				ORANGE TEMP RT ARROW P093
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P093
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P093
P094	D1-1	96 X 21						1	14.00				SEE DETAIL
P095	M1-94	60 X 21						1	8.75				SEE DETAIL
P096	D1-1	108 X 21	2						15.75				SEE DETAIL
P097	R3-56	36 X 48		1					12.00				
P098	R6-2L	36 X 48		1					12.00				
P099	R6-2L	36 X 48		1					12.00				
P100A	R5-1	36 X 36							9.00				PLACE ON SIGNAL POLE
P100B	R5-1	36 X 36							9.00				PLACE ON SIGNAL POLE
P101	W12-1D	24 X 24	1						4.00				2' MOUNTING HEIGHT
P102A	R1-1F	36 X 36	1						9.00				PLACE ON SIGNAL POLE
P102B	R1-1F	36 X 36	1						9.00				PLACE ON SIGNAL POLE
P103	J3-1	36 X 81			1								Single Post Assembly P103
	M1-6	36 X 36							9.00				ASSEMBLY "83" P103
	M3-3	30 X 15							3.13				ASSEMBLY "south" P103
	M6-1	30 X 30							6.25				ASSEMBLY RIGHT ARROW P103
P104	R4-7	36 X 48	1						12.00				P103

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS AND ADDITIONS.

SIGNS REMOVED FROM THIS SHEET: P060A,P060B,P062,P063,P065,P066,PO67A,PO67B & PO68

ADD #1
REV SHT 225
6/29/2007

3

3

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
P105	J4-3	36 X 51		1									Single Post Assembly P105
	M1-6	36 X 36							9.00				ASSEMBLY "83" P105
	M1-6	36 X 36							9.00			9.00	ASSEMBLY "36" P105 COVER
	M1-6	36 X 36							9.00			9.00	ASSEMBLY "11" P105 COVER
	M3-1	30 X 15							3.13				ASSEMBLY "NORTH" P105
	M3-1	30 X 15							3.13			3.13	ASSEMBLY "NORTH" P105 COVER
	M3-2	30 X 15							3.13			3.13	ASSEMBLY "EAST" P105 COVER
P106A	R2-1	36 X 48		1					12.00				
P106B	R2-1	36 X 48		1					12.00				
P107	R5-1A	42 X 30		1					8.75				
P108	R3-55L	36 X 48							12.00				P107
P109	J3-2	72 X 81		1									Double Post Assembly P109
	M1-6	36 X 36							9.00				ASSEMBLY "83" P109
	M1-6	36 X 36							9.00				ASSEMBLY "50" P109
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P109
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P109
	M6-1	30 X 30							6.25				ASSEMBLY LT ARROW P109
	M6-1	30 X 30							6.25				ASSEMBLY LT ARROW P109
P110A	J2-2	72 X 81		1									Double Post Assembly P110A
	M1-6	36 X 36							9.00				ASSEMBLY "83" P110A
	M1-6	36 X 36							9.00				ASSEMBLY "50" P110A
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P110A
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P110A
	M5-1L	30 X 30							6.25				ASSEMBLY LT TURN ARROW P110A
	M5-1L	30 X 30							6.25				ASSEMBLY LT TURN ARROW P110A
P110B	J2-2	72 X 81				2							Double Post Assembly P110B
	M1-6	36 X 36							9.00				ASSEMBLY "11" P110B
	M1-6	36 X 36							9.00				ASSEMBLY "36" P110B
	M3-4	30 X 15							3.13				ASSEMBLY "WEST" P110B
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P110B
	M6-1	30 X 30							6.25				ASSEMBLY FORWARD ARROW P110B
	M6-1	30 X 30							6.25				ASSEMBLY FORWARD ARROW P110B
	MO5-1R	30 X 30							6.25				ORANGE TEMP RT TURN ARROW P110B
	MO5-1R	30 X 30							6.25				ORANGE TEMP RT TURN ARROW P110B
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P110B
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P110B
P111A	W3-3	36 X 36	1						9.00				16" X 16" FLAGS REQD
P111B	W3-3	36 X 36	1						9.00				16" X 16" FLAGS REQD
P112A	R2-1	36 X 48		1					12.00				
P112B	R2-1	36 X 48		1					12.00				
P113	R1-2	36 X 31	1						3.88				
P114	W13-2A	48 X 90				1			30.00				10 MPH Modified for Right Turn
P115	D1-1	96 X 21	2						14.00				SEE DETAIL
P115A	M1-94	84 X 21	2						12.25				SEE DETAIL
P116A	J1-1	36 X 57		1									Single Post Assembly P116A
	M1-6	36 X 36							9.00				ASSEMBLY "142" P116A
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P116A
P116B	J1-1	36 X 57		1									Single Post Assembly P116B
	M1-6	36 X 36							9.00				ASSEMBLY "142" P116B
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P116A
P117A	J2-1	36 X 81			1								Single Post Assembly P117A
	M1-6	36 X 36							9.00				ASSEMBLY "142" P117A
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P117A
	M5-1R	30 X 30							6.25				ASSEMBLY RT TURN ARROW P117A
P117B	J2-1	36 X 81			1								Single Post Assembly P117B
	M1-6	36 X 36							9.00				ASSEMBLY "142" P117B
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P117B
	M5-1R	30 X 30							6.25				ASSEMBLY RT TURN ARROW P117B
P118A	R2-1	36 X 48		1					12.00				
P118B	R2-1	36 X 48		1					12.00				

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 226
6/29/2007

3

3

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS WOOD 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
P119	J3-1	36 X 81			1								Single Post Assembly P119
	M1-6	36 X 36							9.00				ASSEMBLY "142" P119
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P119
	M6-1	30 X 30							6.25				ASSEMBLY RT ARROW P119
P120	J4-3	108 X 51			1								Triple Post Assembly P120
	M1-6	36 X 36							9.00				ASSEMBLY "83" P120
	M1-6	36 X 36							9.00			9.00	ASSEMBLY "11" P120 COVER
	M1-6	36 X 36							9.00			9.00	ASSEMBLY "36" P120 COVER
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P120
	M3-4	30 X 15							3.13			3.13	ASSEMBLY "WEST" P120 COVER
	M3-3	30 X 15							3.13			3.13	ASSEMBLY "SOUTH" P120 COVER
P121	J4-3	108 X 51				3							Triple Post Assembly P121
	M1-6	36 X 36							9.00				ASSEMBLY "83" P121
	M1-6	36 X 36							9.00				ASSEMBLY "11" P121
	M1-6	36 X 36							9.00				ASSEMBLY "36" P121
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P121
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P121
	M3-1	30 X 15							3.13				SEPARATE SIGN "NORTH" P121
	M3-2	30 X 15							3.13				SEPARATE SIGN "EAST" P121
	M3-1	30 X 15							3.13				SEPARATE SIGN "NORTH" P121
	M6-1	30 X 30							6.25				SEPARATE SIGN FORWARD ARROW P121
	M6-1	30 X 30							6.25				SEPARATE SIGN FORWARD ARROW P121
P122	J3-1	36 X 81			1								Single Post Assembly P122
	M1-6	36 X 36							9.00				ASSEMBLY "142" P122
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P122
	M6-1	30 X 30							6.25				ASSEMBLY RT ARROW P122
P125A	R2-1	36 X 48		1					12.00				
P125B	R2-1	36 X 48		1					12.00				
P126A	J2-1	36 X 81			1								Single Post Assembly P126A
	M1-6	36 X 36							9.00				ASSEMBLY "142" P126A
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P126A
	M5-1R	30 X 30							6.25				ASSEMBLY RT TURN ARROW P126A
P126B	J2-1	36 X 81			1								Single Post Assembly P126B
	M1-6	36 X 36							9.00				ASSEMBLY "142" P126B
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P126B
	M5-1R	30 X 30							6.25				ASSEMBLY RT TURN ARROW P126B
P127A	J1-1	36 X 57			1								Single Post Assembly P127A
	M1-6	36 X 36							9.00				ASSEMBLY "142" P127A
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P127A
P127B	J1-1	36 X 57			1								Single Post Assembly P127B
	M1-6	36 X 36							9.00				ASSEMBLY "142" P127B
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P127B
P128	R3-4B	36 X 48	1						12.00				
P129	R3-4B	36 X 48	1						12.00				
P133A	J1-1	36 X 57			1								Single Post Assembly P133A
	M1-6	36 X 36							9.00				ASSEMBLY "11" P133A
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P133A
P133B	J1-1	36 X 57			1								Single Post Assembly P133B
	M1-6	36 X 36							9.00				ASSEMBLY "11" P133B
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P133B
P134A	W3-3	36 X 36		1					9.00				16" X 16" FLAGS REQD
P134B	W3-3	36 X 36		1					9.00				16" X 16" FLAGS REQD
P135A	W20-7b	48 X 48		1					16.00				
P135B	W20-7b	48 X 48		1					16.00				
P136A	J2-2	72 X 81		1									Double Post Assembly P136A
	M1-6	36 X 36							9.00				ASSEMBLY "11" P136A
	M1-6	36 X 36							9.00				ASSEMBLY "11" P136A
	M3-4	30 X 15							3.13				ASSEMBLY "WEST" P136A
	M3-2	30 X 15							3.13				ASSEMBLY "EAST" P136A
	M5-1L	30 X 30							6.25				ASSEMBLY LT TURN ARROW P136A

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 227
6/29/2007

3

3

PROJECT NUMBER: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET NO: 227	E

FILE NAME: S:\DOT\DOT_SE\04081\WORK FOR 09\ESTIMATES\04081_MISCQUANT_09.ppt

ORIGINATOR: JUSTIN M. ARNDT

ORIG. DATE: MARCH 3, 2006

PLOTTED DATE: 6/13/2007 11:44 AM

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
P119	J3-1	36 X 81			1								Single Post Assembly P119
	M1-6	36 X 36							9.00				ASSEMBLY "142" P119
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P119
	M6-1	30 X 30							6.25				ASSEMBLY RT ARROW P119
P120	J4-3	108 X 51			1								Triple Post Assembly P120
	M1-6	36 X 36							9.00				ASSEMBLY "83" P120
	M1-6	36 X 36							9.00			9.00	ASSEMBLY "11" P120 COVER
	M1-6	36 X 36							9.00			9.00	ASSEMBLY "36" P120 COVER
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P120
	M3-4	30 X 15							3.13			3.13	ASSEMBLY "WEST" P120 COVER
	M3-3	30 X 15							3.13			3.13	ASSEMBLY "SOUTH" P120 COVER
P121	J4-3	108 X 51				3							Triple Post Assembly P121
	M1-6	36 X 36							9.00				ASSEMBLY "83" P121
	M1-6	36 X 36							9.00				ASSEMBLY "11" P121
	M1-6	36 X 36							9.00				ASSEMBLY "36" P121
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P121
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P121
	M3-1	30 X 15							3.13				SEPARATE SIGN "NORTH" P121
	M3-2	30 X 15							3.13				SEPARATE SIGN "EAST" P121
	M3-1	30 X 15							3.13				SEPARATE SIGN "NORTH" P121
	M6-1	30 X 30							6.25				SEPARATE SIGN FORWARD ARROW P121
	M6-1	30 X 30							6.25				SEPARATE SIGN FORWARD ARROW P121
P122	J3-1	36 X 81			1								Single Post Assembly P122
	M1-6	36 X 36							9.00				ASSEMBLY "142" P122
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P122
	M6-1	30 X 30							6.25				ASSEMBLY RT ARROW P122
P125A	R2-1	36 X 48		1					12.00				
P125B	R2-1	36 X 48		1					12.00				
P126A	J2-1	36 X 81			1								Single Post Assembly P126A
	M1-6	36 X 36							9.00				ASSEMBLY "142" P126A
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P126A
	M5-1R	30 X 30							6.25				ASSEMBLY RT TURN ARROW P126A
P126B	J2-1	36 X 81			1								Single Post Assembly P126B
	M1-6	36 X 36							9.00				ASSEMBLY "142" P126B
	M4-5	30 X 15							3.13				ASSEMBLY "TO" P126B
	M5-1R	30 X 30							6.25				ASSEMBLY RT TURN ARROW P126B
P127A	J1-1	36 X 57			1								Single Post Assembly P127A
	M1-6	36 X 36							9.00				ASSEMBLY "142" P127A
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P127A
P127B	J1-1	36 X 57			1								Single Post Assembly P127B
	M1-6	36 X 36							9.00				ASSEMBLY "142" P127B
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P127B
P128	R3-4B	36 X 48	1						12.00				
P129	R3-4B	36 X 48	1						12.00				
P133A	J1-1	36 X 57			1								Single Post Assembly P133A
	M1-6	36 X 36							9.00				ASSEMBLY "11" P133A
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P133A
P133B	J1-1	36 X 57			1								Single Post Assembly P133B
	M1-6	36 X 36							9.00				ASSEMBLY "11" P133B
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P133B
P134A	W3-3	36 X 36		1					9.00				16" X 16" FLAGS REQD
P134B	W3-3	36 X 36		1					9.00				16" X 16" FLAGS REQD
P135A	W20-7b	48 X 48		1					16.00				
P135B	W20-7b	48 X 48		1					16.00				
P136A	J2-2	72 X 81		1									Double Post Assembly P136A
	M1-6	36 X 36							9.00				ASSEMBLY "11" P136A
	M1-6	36 X 36							9.00				ASSEMBLY "11" P136A
	M3-4	30 X 15							3.13				ASSEMBLY "WEST" P136A
	M3-2	30 X 15							3.13				ASSEMBLY "EAST" P136A
	M5-1L	30 X 30							6.25				ASSEMBLY LT TURN ARROW P136A

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 228
6/29/2007

3

3

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
	M5-1R	30 X 30							6.25				ASSEMBLY RT TURN ARROW P136A
P136B	J2-2	72 X 81		1									Double Post Assembly P136B
	M1-6	36 X 36							9.00				ASSEMBLY "11" P136B
	M1-6	36 X 36							9.00				ASSEMBLY "11" P136B
	M3-4	30 X 15							3.13				ASSEMBLY "WEST" P136B
	M3-2	30 X 15							3.13				ASSEMBLY "EAST" P136B
	M5-1L	30 X 30							6.25				ASSEMBLY LT TURN ARROW P136B
	M5-1R	30 X 30							6.25				ASSEMBLY RT TURN ARROW P136B
P137	D1-3	96 X 54		2					36.00				SEE DETAIL
P137A	M1-94	84 X 21		2					12.25				SEE DETAIL
P138	J3-1	36 X 81		1									Single Post Assembly P138
	M1-6	36 X 36							9.00				ASSEMBLY "11" P138
	M3-4	30 X 15							3.13				ASSEMBLY "WEST" P138
	M6-1	30 X 30							6.25				ASSEMBLY LT ARROW P138
P139	R3-55L	36 X 48		1					12.00				
P140	R5-1A	36 X 24							6.00				P139
P141	R2-1	36 X 48		1					12.00				
P142	R2-1	36 X 48		1					12.00				
P146	J3-1	36 X 81		1									Single Post Assembly P146
	M1-6	36 X 36							9.00				ASSEMBLY "11" P146
	M3-2	30 X 15							3.13				ASSEMBLY "EAST" P146
	M6-1	30 X 30							6.25				ASSEMBLY RT ARROW P146
P147A	J4-3	108 X 51		1									Triple Post Assembly P147A
	M1-6	36 X 36							9.00				ASSEMBLY "83" P147A
	M1-6	36 X 36							9.00			9.00	ASSEMBLY "11" P147A COVER
	M1-6	36 X 36							9.00			9.00	ASSEMBLY "36" P147A COVER
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P147A
	M3-4	30 X 15							3.13			3.13	ASSEMBLY "WEST" P147A COVER
	M3-3	30 X 15							3.13			3.13	ASSEMBLY "SOUTH" P147A COVER
P147B	J4-3	108 X 51		1									Triple Post Assembly P147B
	M1-6	36 X 36							9.00				ASSEMBLY "83" P147B
	M1-6	36 X 36							9.00			9.00	ASSEMBLY "11" P147B COVER
	M1-6	36 X 36							9.00			9.00	ASSEMBLY "36" P147B COVER
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P147B
	M3-4	30 X 15							3.13			3.13	ASSEMBLY "WEST" P147B COVER
	M3-3	30 X 15							3.13			3.13	ASSEMBLY "SOUTH" P147B COVER
P148	W12-1D	24 X 24	1						4.00				
P149A	R5-1	36 X 36	1						9.00				
P149B	R5-1	36 X 36	1						9.00				
P150	R1-1	36 X 36	1						9.00				
P151A	R1-1F	36 X 36							9.00				P149A
P151B	R1-1F	36 X 36							9.00				P149B
P152	R4-7	36 X 48	1						12.00				
P153A	R5-1	36 X 36	1						9.00				
P153B	R5-1	36 X 36	1						9.00				
P154	R1-1	36 X 36	1						9.00				
P155A	R1-1F	36 X 36							9.00				P153A
P155B	R1-1F	36 X 36							9.00				P153B
P156	R4-7	36 X 48	1						12.00				
P157	W12-1D	24 X 24	1						4.00				
P158	J4-1	36 X 81		1									Single Post Assembly P158
	M1-6	36 X 36							9.00				ASSEMBLY "11" P158
	M3-4	30 X 15							3.13				ASSEMBLY "WEST" P158
	M6-1	30 X 30							6.25				SEPARATE SIGN RT ARROW P158
P159	J3-1	36 X 81											Place Assembly Under Signal P159
	M1-6	36 X 36							9.00				ASSEMBLY "11" P159
	M3-2	30 X 15							3.13				ASSEMBLY "EAST" P159
	M6-1	30 X 30							6.25				ASSEMBLY LT ARROW P159
P160A	J4-2	72 X 51		1									Double Post Assembly P160A

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 229
6/29/2007

3

3

FILE NAME: S:\DOT\DOT_SE\04081\WORK FOR 09\ESTIMATES\04081_MISCQUANT_09.ppt
ORIGINATOR: JUSTIN M. ARNDT
ORIG. DATE: MARCH 3, 2006
PLOTTED DATE: 6/13/2007 11:44 AM

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
	M1-6	36 X 36							9.00				ASSEMBLY "83" P160A
	M1-6	36 X 36							9.00				ASSEMBLY "36" P160A
	M3-1	30 X 15							3.13				ASSEMBLY "NORTH" P160A
	M3-1	30 X 15							3.13				ASSEMBLY "NORTH" P160A
	M4-5	30 X 15							3.13				Separate Sign "TO" P160A
	M3-3	30 X 15							3.13				SEPARATE SIGN FORWARD ARROW P160A
P160B	J4-2	72 X 51		1									Double Post Assembly P160B
	M1-6	36 X 36							9.00				ASSEMBLY "83" P160B
	M1-6	36 X 36							9.00				ASSEMBLY "36" P160B
	M3-1	30 X 15							3.13				ASSEMBLY "NORTH" P160B
	M3-1	30 X 15							3.13				ASSEMBLY "NORTH" P160B
	M4-5	30 X 15							3.13				Separate Sign "TO" P160B
	M3-3	30 X 15							3.13				SEPARATE SIGN FORWARD ARROW P160B
P161	J4-1	36 X 81		1									Single Post Assembly P161
	M1-6	36 X 36							9.00				ASSEMBLY "11" P161
	M3-4	30 X 15							3.13				ASSEMBLY "WEST" P161
	M6-1	30 X 30							6.25				SEPARATE SIGN RT ARROW P158
P162	R5-1A	36 X 24							6.00				P163
P163	R3-55L	36 X 48		1					12.00				
P164A	R2-1	36 X 48		1					12.00				
P164B	R2-1	36 X 48		1					12.00				
P165	J3-1	36 X 81											Single Post Assembly P165
	M1-6	36 X 36							9.00				ASSEMBLY "11" P165
	M3-2	30 X 15							3.13				ASSEMBLY "EAST" P165
	M6-1	30 X 30							6.25				ASSEMBLY LT ARROW P165
P166	D1-2	96 X 96	2						64.00				SEE DETAIL
P166A	M1-94	84 X 21	2						12.25				SEE DETAIL
P167A	J2-2	72 X 81			2								Double Post Assembly P167A
	M1-6	36 X 36							9.00				ASSEMBLY "11" P167A
	M1-6	36 X 36							9.00				ASSEMBLY "11" P167A
	M3-2	30 X 15							3.13				ASSEMBLY "EAST" P167A
	M3-4	30 X 15							3.13				ASSEMBLY "WEST" P167A
	M4-5	30 X 15							3.13				ASSEMBLY LT TURN ARROW P167A
	M3-3	30 X 15							3.13				ASSEMBLY FORWARD ARROW P167A
	M3-3	30 X 15							3.13				ORANGE TEMP RT TURN ARROW P167A
P167B	J2-2	72 X 81			2								Double Post Assembly P167B
	M1-6	36 X 36							9.00				ASSEMBLY "11" P167B
	M1-6	36 X 36							9.00				ASSEMBLY "11" P167B
	M3-2	30 X 15							3.13				ASSEMBLY "EAST" P167B
	M3-4	30 X 15							3.13				ASSEMBLY "WEST" P167B
	M5-1L	30 X 15							3.13				ASSEMBLY LT TURN ARROW P167B
	M6-1	30 X 30							6.25				ASSEMBLY FORWARD ARROW P167B
	M05-1R	30 X 15							3.13				ORANGE TEMP RT TURN ARROW P167B
P168A	W3-3	36 X 36		1					9.00				16" X 16" FLAGS REQD
P168B	W3-3	36 X 36		1					9.00				16" X 16" FLAGS REQD
P169A	W20-7b	48 X 48		1					16.00				
P169B	W20-7b	48 X 48		1					16.00				
P171A	J2-2	36 X 57		1									Single Post Assembly P171A
	M1-6	36 X 36							9.00				ASSEMBLY "11" P171A
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P171A
P171B	J2-2	36 X 57		1									Single Post Assembly P171B
	M1-6	36 X 36							9.00				ASSEMBLY "11" P171B
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P171B
P175A	J1-1	36 X 57		1									Single Post Assembly P175A
	M1-6	36 X 36							9.00				ASSEMBLY "A" P175A
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P175A
P175B	J1-1	36 X 57		1									Single Post Assembly P175B
	M1-6	36 X 36							9.00				ASSEMBLY "A" P175B
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P175B
P175C	W13-2A	48 X 90				1			30.00				10 MPH Modified for Right Turn

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS AND ADDITIONS.

SIGNS REMOVED FROM THIS SHEET: NONE

SIGNS ADDED TO THIS SHEET: P175C

ADD #1
REV SHT 230
6/29/2007

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
P176A	J2-1	36 X 81			1								Single Post Assembly P176A
	M1-6	36 X 36							9.00				ASSEMBLY "A" P176A
	M4-5	30 X 15							3.13				Separate Sign "TO" P176A
	M5-1R	30 X 15							3.13				ASSEMBLY RT TURN ARROW P176A
P176B	J2-1	36 X 81			1								Single Post Assembly P176B
	M1-6	36 X 36							9.00				ASSEMBLY "A" P176B
	M4-5	30 X 15							3.13				Separate Sign "TO" P176B
	M5-1R	30 X 15							3.13				ASSEMBLY RT TURN ARROW P176B
P176C	J3-1	36 X 81			1								Single Post Assembly P176C
	M1-6	36 X 36							9.00				ASSEMBLY "A" P176C
	M4-5	30 X 15							3.13				Separate Sign "TO" P176C
	M6-1	30 X 30							6.25				ASSEMBLY RT ARROW P176C
P176D	W1-6	60 X 30	1						12.50				
P176E	W4-3	48 X 48		1					16.00				
P178A	R2-1	36 X 48		1					12.00				
P178B	R2-1	36 X 48		1					12.00				
P178C	W4-3	48 X 48		1					16.00				
P179A	J4-2	72 X 51			2								Double Post Assembly P179A
	M1-6	36 X 36							9.00				ASSEMBLY "83" P179A
	M1-6	36 X 36							9.00				ASSEMBLY "36" P179A
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P179A
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P179A
	M6-1	30 X 30							6.25				SEPARATE SIGN FORWARD ARROW P179A
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P179A
P179B	J4-2	72 X 51			2								Double Post Assembly P179B
	M1-6	36 X 36							9.00				ASSEMBLY "83" P179B
	M1-6	36 X 36							9.00				ASSEMBLY "36" P179B
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P179B
	M3-3	30 X 15							3.13				ASSEMBLY "SOUTH" P179B
	M6-1	30 X 30							6.25				SEPARATE SIGN FORWARD ARROW P179B
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P179B
P179C	W4-3	48 X 48		1					16.00				
P179D	J3-1	36 X 81			1								Single Post Assembly P180A
	M1-6	36 X 36							9.00				ASSEMBLY "A" P180A
	M4-5	30 X 15							3.13				Separate Sign "TO" P180A
	M6-1	30 X 30							6.25				ASSEMBLY LT ARROW P180A
P181A	J3-1	36 X 81			1								Single Post Assembly P181A
	M1-6	36 X 36							9.00				ASSEMBLY "A" P181A
	M4-5	30 X 15							3.13				Separate Sign "TO" P181A
	M6-1	30 X 30							6.25				ASSEMBLY RT ARROW P181A
P181B	W1-6	60 X 30	1						12.50				
P181C	W4-3	48 X 48		1					16.00				
P183A	J4-2	72 X 51			2								Double Post Assembly P183A
	M1-6	36 X 36							9.00				ASSEMBLY "83" P183A
	M1-6	36 X 36							9.00				ASSEMBLY "36" P183A
	M3-1	30 X 15							3.13				ASSEMBLY "NORTH" P183A
	M3-1	30 X 15							3.13				ASSEMBLY "NORTH" P183A
	M6-1	30 X 30							6.25				SEPARATE SIGN FORWARD ARROW P183A
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P183A
P183B	J4-2	72 X 51			2								Double Post Assembly P183B
	M1-6	36 X 36							9.00				ASSEMBLY "83" P183B
	M1-6	36 X 36							9.00				ASSEMBLY "36" P183B
	M3-1	30 X 15							3.13				ASSEMBLY "NORTH" P183B
	M3-1	30 X 15							3.13				ASSEMBLY "NORTH" P183B
	M6-1	30 X 30							6.25				SEPARATE SIGN FORWARD ARROW P183B
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P183B
P185A	J2-1	36 X 81			1								Single Post Assembly P185A
	M1-6	36 X 36							9.00				ASSEMBLY "A" P185A
	M4-5	30 X 15							3.13				Separate Sign "TO" P185A
	M5-1R	30 X 15							3.13				ASSEMBLY RT TURN ARROW P185A

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS AND ADDITIONS.

SIGNS REMOVED FROM THIS SHEET:
P177A,P177B,P180A,P180B, P180C,P182A,P182B,P184A &P184B

SIGNS ADDED TO THIS SHEET:
P176C,P176D,P176E,178C, P179C, P179D,P181B, & P181C

ADD #1
REV SHT 231
6/29/2007

PROJECT NUMBER: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET NO: 231	E

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS WOOD 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
P185B	J2-1	36 X 81			1								Single Post Assembly P185B
	M1-6	36 X 36							9.00				ASSEMBLY "A" P185B
	M4-5	30 X 15							3.13				Separate Sign "TO" P185B
	M5-1R	30 X 15							3.13				ASSEMBLY RT TURN ARROW P185B
P186A	R2-1	36 X 48		1					12.00				
P186B	R2-1	36 X 48		1					12.00				
P187A	J1-1	36 X 81			1								Single Post Assembly P187A
	M1-6	36 X 36							9.00				ASSEMBLY "A" P187A
	M2-1	30 X 21							4.38				Separate Sign "JCT" P187A
P187B	J1-1	36 X 81			1								Single Post Assembly P187B
	M1-6	36 X 36							9.00				ASSEMBLY "A" P187B
	M2-1	30 X 21							4.38				Separate Sign "JCT" P187B
P191	W4-2R	36 X 36		1					9.00				
P192	W4-1	36 X 36		1					9.00				
P193	E5-1	60 X 48	2						20.00				
P194	W4-1	36 X 36		1					9.00				
P198	W4-2R	48 X 48		1					16.00				
E100	EXIST	0 0											Existing Sign to Remain
E101	EXIST	0 0											Existing Sign to Remain
E102	EXIST	0 0											Existing Sign to Remain
E103	EXIST	0 0											Existing Sign to Remain
E104	EXIST	0 0											Existing Sign to Remain
E105	EXIST	0 0											Existing Sign to Remain
E106	EXIST	0 0											Existing Sign to Remain
E107	EXIST	0 0											Existing Sign to Remain
P199A	R2-1	36 X 48		1					12.00				
P199B	R2-1	36 X 48		1					12.00				
R200	R2-1	0 0								1	1		
E200	EXIST	0 0											Existing Sign to Remain
P200A	J2-3	72 X 57			2	1							Triple Post Assembly P200A
	M1-6	24 X 24							4.00				ASSEMBLY "83" P200A
	M1-6	24 X 24							4.00				ASSEMBLY "11" P200A
	M1-6	24 X 24							4.00				ASSEMBLY "36" P200A
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P200A
	M3-2	24 X 12							2.00				ASSEMBLY "EAST" P200A
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P200A
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P200A
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P200A
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P200A
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P200A
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P200A
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P200A
P200B	J2-2	48 X 57				1	1						Double Post Assembly P200B
	M1-6	24 X 24							4.00				ASSEMBLY "11" P200B
	M1-6	24 X 24							4.00				ASSEMBLY "36" P200B
	M3-4	24 X 12							2.00				ASSEMBLY "WEST" P200B
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P200B
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P200B
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P200B
	MO6-1	21 X 21							3.06				ORANGE TEMP LT ARROW P200B
	MO6-1	21 X 21							3.06				ORANGE TEMP LT ARROW P200B
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P200B
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P200B
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P200B
P201	D1-2	78 X 30	2						16.25				SEE DETAIL
P202A	R4-7	36 X 48		1					12.00				
P202B	W5-54	18 X 18							2.25				P202A
P203	R5-1	30 X 30	1						6.25				
P204	W12-1D	24 X 24	1						4.00				
P205A	R4-7	36 X 48							12.00				P222A

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 232
6/29/2007

3

3

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS WOOD POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
P205B	W5-54	18 X 18							2.25				P222A
P206A	JV3-1	48 X 57						1					Single Vertical Post Assembly P206A
	M1-6	24 X 24							4.00				ASSEMBLY "11" P206A
	M1-6	24 X 24							4.00				ASSEMBLY "36" P206A
	M3-4	24 X 12							2.00				ASSEMBLY "WEST" P206A
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P206A
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P206A
	MO6-1	21 X 21							3.06				ORANGE TEMP FORWARD ARROW P206A
	M4-5	30 X 15							3.13				SEPARATE SIGN "TO" P206A
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P206A
P206B	J3-3	72 X 57			2	1							Triple Post Assembly P206B
	M1-6	24 X 24							4.00				ASSEMBLY "83" P206B
	M1-6	24 X 24							4.00				ASSEMBLY "11" P206B
	M1-6	24 X 24							4.00				ASSEMBLY "36" P206B
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P206B
	M3-2	24 X 12							2.00				ASSEMBLY "EAST" P206B
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P206B
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P206B
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P206B
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P206B
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P206B
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P206B
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P206B
P207B	W5-54	18 X 18							2.25				P223B
P208	W9-1R	30 X 30	1						6.25				
P209	R5-1A	36 X 24							6.00				P208
P210A	J3-3	72 X 57			2	1							Triple Post Assembly P210A
	M1-6	24 X 24							4.00				ASSEMBLY "11" P210A
	M1-6	24 X 24							4.00				ASSEMBLY "36" P210A
	M1-6	24 X 24							4.00				ASSEMBLY "83" P210A
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P210A
	M3-2	24 X 12							2.00				ASSEMBLY "EAST" P210A
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P210A
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P210A
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P210A
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P210A
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P210A
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P210A
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P210A
P210B	J3-3	72 X 57			2	1							Triple Post Assembly P210B
	M1-6	24 X 24							4.00				ASSEMBLY "83" P210B
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P210B COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P210B COVER
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P210B
	M3-4	24 X 12							2.00			2.00	ASSEMBLY "WEST" P210B COVER
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P210B COVER
	M6-1	21 X 21							3.06				ASSEMBLY FORWARD ARROW P210B
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P210B COVER
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P210B COVER
	M4-5	24 X 12							2.00			2.00	SEPARATE SIGN "TO" P210B COVER
	M4-5	24 X 12							2.00			2.00	SEPARATE SIGN "TO" P210B COVER
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P210B
P211	W3-3	36 X 36		1					9.00				16" X 16" FLAGS REQD
P212	D1-2	72 X 30	2						15.00				SEE DETAIL
P213A	R3-55L	24 X 30	1						5.00				
P214	W4-2R	36 X 36		1					9.00				
P215	R5-1	30 X 30							6.25				P214
P216A	J2-3	72 X 57			2	1							Triple Post Assembly P216A
	M1-6	24 X 24							4.00				ASSEMBLY "11" P216A
	M1-6	24 X 24							4.00				ASSEMBLY "36" P216A

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 233
6/29/2007

3

3

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
	M1-6	24 X 24							4.00				ASSEMBLY "83" P216A
	M3-2	24 X 12							2.00				ASSEMBLY "EAST" P216A
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P216A
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P216A
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P216A
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P216A
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P216A
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P216A
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P216A
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P216A
P216B	J2-3	72 X 57			2	1							Triple Post Assembly P216B
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P216B COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P216B COVER
	M1-6	24 X 24							4.00				ASSEMBLY "83" P216B
	M3-4	24 X 12							2.00			2.00	ASSEMBLY "WEST" P216B COVER
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P216B COVER
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P216B
	M5-1R	21 X 21							3.06			3.06	ASSEMBLY RT TURN ARROW P216B COVER
	M5-1R	21 X 21							3.06			3.06	ASSEMBLY RT TURN ARROW P216B COVER
	M6-1	21 X 21							3.06				ASSEMBLY FORWARD ARROW P216B
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P216B
P217	R2-1	24 X 30		1					5.00				
P218	R2-1	24 X 30		1					5.00				
P219	J1-3	72 X 39		2	1								Triple Post Assembly P219
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P219 COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P219 COVER
	M1-6	24 X 24							4.00				ASSEMBLY "83" P219
	M2-1	30 X 21							4.38			4.38	ASSEMBLY "JCT" P219 COVER
	M2-1	30 X 21							4.38			4.38	ASSEMBLY "JCT" P219 COVER
	M2-1	30 X 21							4.38				ASSEMBLY "JCT" P219
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P219
P220	W3-3	36 X 36		1					9.00				16" X 16" FLAGS REQD
P221	R1-2	36 X 31	1						3.88				
P222A	R1-1F	36 X 36		1					9.00				
P222B	R1-1F	36 X 36							9.00				Mount to Signal Pole
P223A	R1-1F	36 X 36							9.00				Mount to Signal Pole
P223B	R1-1F	36 X 36		1					9.00				
P224	R3-8V	72 X 30	1						15.00				
P225	D1-1	66 X 15	2						6.88				SEE DETAIL
P226	R5-1A	36 X 24	1						6.00				
P227	W12-1D	24 X 24	1						4.00			4.00	2' MOUNTING HEIGHT. COVER SIGN
P228	R4-7	36 X 48		1					12.00				
P229	R6-2L	36 X 48		1					12.00				
P230	R2-1	24 X 30	1						5.00				16" X 16" FLAGS REQD
R201	EXIST	0 0								1	1		
R202	EXIST	0 0											
R203	R1-1	0 0								1	1		
R204	EXIST	0 0								1	1		
R205	R2-1	0 0								1	1		
R206	W2-2	0 0								1	1		
R207	R2-1	0 0								1	1		
R208	R2-1	0 0								1	1		
E300	EXIST	0 0											Existing Sign to Remain
P300	R2-1	24 X 30	1						5.00				
P301	W5-52R	12 X 36	1						3.00				
P302	W5-52L	12 X 36	1						3.00				
P303	W5-52L	12 X 36	1						3.00				
P304	W5-52R	12 X 36	1						3.00				
P305	R2-1	24 X 30	1						5.00				
P306	R2-1	24 X 30	1						5.00				

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 234
6/29/2007

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS WOOD 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
R300	R2-1	0 0								1	1		
R301	R2-1	0 0											
R302	R2-1	0 0								1	1		
P400	J1-3	72 X 39	3										Triple Post Assembly P400
	M1-6	24 X 24							4.00				ASSEMBLY "83" P400
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P400 Cover
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P400 Cover
	M2-1	21 X 15							2.19				ASSEMBLY "JCT" P400
	M2-1	21 X 15							2.19			2.19	ASSEMBLY "JCT" P400 Cover
	M2-1	21 X 15							2.19			2.19	ASSEMBLY "JCT" P400 Cover
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P400
P401	J2-3	72 X 57		3									Triple Post Assembly P401
	M1-6	24 X 24							4.00				ASSEMBLY "83" P401
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P401 Cover
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P401 Cover
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P401
	M3-4	24 X 12							2.00			2.00	ASSEMBLY "WEST" P401 Cover
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P401Cover
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P401
	M5-1L	21 X 21							3.06			3.06	ASSEMBLY LT TURN ARROW P401 Cover
	M5-1L	21 X 21							3.06			3.06	ASSEMBLY LT TURN ARROW P401 Cover
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P400
P402	D1-2	72 X 30	2						15.00				SEE DETAIL
P403	J3-3	72 X 57		3									Triple Post Assembly P403
	M1-6	24 X 24							4.00				ASSEMBLY "83" P403
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P403 Cover
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P403 Cover
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P403
	M3-4	24 X 12							2.00			2.00	ASSEMBLY "WEST" P403 Cover
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P403Cover
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P403
	M6-1	21 X 21							3.06			3.06	ASSEMBLY LT ARROW P403 Cover
	M6-1	21 X 21							3.06			3.06	ASSEMBLY LT ARROW P403 Cover
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P403
P404	J3-3	72 X 57		3									Triple Post Assembly P404
	M1-6	24 X 24							4.00				ASSEMBLY "83" P404
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P404 Cover
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P404 Cover
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P404
	M3-4	24 X 12							2.00			2.00	ASSEMBLY "WEST" P404 Cover
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P404Cover
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P404
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P404 Cover
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P404 Cover
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P404
P405	J2-3	72 X 57		3									Triple Post Assembly P405
	M1-6	24 X 24							4.00				ASSEMBLY "83" P405
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P405 Cover
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P405 Cover
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P405
	M3-2	24 X 12							2.00			2.00	ASSEMBLY "EAST" P405 Cover
	M3-1	24 X 12							2.00			2.00	ASSEMBLY "NORTH" P405 COVER
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P405
	M5-1R	21 X 21							3.06			3.06	ASSEMBLY RT TURN ARROW P405 Cover
	M5-1R	21 X 21							3.06			3.06	ASSEMBLY RT TURN ARROW P405 Cover
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P405
P406	D1-2	72 X 30	2						15.00				SEE DETAIL
P407	J2-3	72 X 57		3									Triple Post Assembly P407
	M1-6	24 X 24							4.00				ASSEMBLY "83" P407
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P407 Cover

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 235
6/29/2007

3

3

PROJECT NUMBER: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET NO: 235	E

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS WOOD 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P407 Cover
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P407
	M3-4	24 X 12							2.00			2.00	ASSEMBLY "WEST" P407 Cover
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P407Cover
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P407
	M5-1R	21 X 21							3.06			3.06	ASSEMBLY RT TURN ARROW P407 Cover
	M5-1R	21 X 21							3.06			3.06	ASSEMBLY RT TURN ARROW P407 Cover
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P407
P408	J3-3	72 X 57		3									Triple Post Assembly P408
	M1-6	24 X 24							4.00				ASSEMBLY "83" P408
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P408 Cover
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P408 Cover
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P408
	M3-2	24 X 12							2.00			2.00	ASSEMBLY "EAST" P408 Cover
	M3-1	24 X 12							2.00			2.00	ASSEMBLY "NORTH" P408 Cover
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P408
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P408 COVER
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P408 COVER
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P408
P409	J3-3	72 X 57			3								Triple Post Assembly P409
	M1-6	24 X 24							4.00				ASSEMBLY "83" P409
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P409 Cover
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P409 Cover
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P409
	M3-2	24 X 12							2.00			2.00	ASSEMBLY "EAST" P409 Cover
	M3-1	24 X 12							2.00			2.00	ASSEMBLY "NORTH" P409 Cover
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P409
	M6-1	21 X 21							3.06			3.06	ASSEMBLY LT ARROW P409 Cover
	M6-1	21 X 21							3.06			3.06	ASSEMBLY LT ARROW P409 Cover
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P409
P410	J4-1	24 X 36		1									Single Post Assembly P410
	M1-6	24 X 24							4.00				ASSEMBLY "142" P410
	M3-4	24 X 12							2.00				ASSEMBLY "EAST" P410
P411	D1-2	78 X 30		2					16.25				SEE DETAIL
P412	J2-3	72 X 57		3									Triple Post Assembly P412
	M1-6	24 X 24							4.00				ASSEMBLY "83" P412
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P412 Cover
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P412 Cover
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P412
	M3-2	24 X 12							2.00			2.00	ASSEMBLY "EAST" P412 Cover
	M3-1	24 X 12							2.00			2.00	ASSEMBLY "NORTH" P412 Cover
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P412
	M5-1L	21 X 21							3.06			3.06	ASSEMBLY LT TURN ARROW P412 Cover
	M5-1L	21 X 21							3.06			3.06	ASSEMBLY LT TURN ARROW P412 Cover
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P412
P413	J1-3	72 X 39	3										Triple Post Assembly P413
	M1-6	24 X 24							4.00				ASSEMBLY "83" P413
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P413 Cover
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P413 Cover
	M2-1	21 X 15							2.19				ASSEMBLY "JCT" P413
	M2-1	21 X 15							2.19			2.19	ASSEMBLY "JCT" P413 Cover
	M2-1	21 X 15							2.19			2.19	ASSEMBLY "JCT" P413 Cover
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P413
P414	J3-1	24 X 57		1									Single Post Assembly P414
	M1-6	24 X 24							4.00				ASSEMBLY "142" P414
	M3-2	24 X 12							2.00				ASSEMBLY "EAST" P414
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P414
P415	R1-1	36 X 36	1						9.00				
P416	R5-1	30 X 30	1						6.25				
P417	R4-7	24 X 30	1						5.00				

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 236
6/29/2007

3

3

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
P418	R1-1	36 X 36							9.00				P417
P419A	W1-60	36 X 36		1					9.00				MODIFIED
P419B	W13-1	18 X 18							2.25				P419A
P420	R5-1A	36 X 24	1						6.00				
P421	D1-2	96 X 36	2						24.00				SEE DETAIL
P422A	J2-1	24 X 57		1									Single Post Assembly P422A
	M1-6	24 X 24							4.00				ASSEMBLY "142" P422A
	M3-2	24 X 12							2.00				ASSEMBLY "EAST" P422A
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P422A
P422B	J2-1	24 X 57		1									Single Post Assembly P422B
	M1-6	24 X 24							4.00				ASSEMBLY "142" P422B
	M3-2	24 X 12							2.00				ASSEMBLY "EAST" P422B
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P422B
P423A	W1-1R	36 X 36		1					9.00				
P423B	W13-1	24 X 24							4.00				10 MPH P423A
P424	W13-3	36 X 48		1					12.00				
P425	W13-3	36 X 48		1					12.00				
P426A	W1-1R	36 X 36		1					9.00				
P426B	W13-1	24 X 24							4.00				10 MPH P426A
P427A	J2-1	24 X 57		1									Single Post Assembly P427A
	M1-6	24 X 24							4.00				ASSEMBLY "142" P427A
	M3-2	24 X 12							2.00				ASSEMBLY "EAST" P427A
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P427A
P427B	J2-1	24 X 57		1									Single Post Assembly P427B
	M1-6	24 X 24							4.00				ASSEMBLY "142" P427B
	M3-2	24 X 12							2.00				ASSEMBLY "EAST" P427B
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P427B
P428	D1-2	96 X 36	2						24.00				
P429	R5-1A	36 X 24	1						6.00				
P430A	W1-60	36 X 36		1					9.00				MODIFIED
P430B	W13-1	18 X 18							2.25				P430A
P431	R4-7	24 X 30	1						5.00				
P432	R1-1	36 X 36							9.00				P431
P433	R1-1	36 X 36	1						9.00				
P434	J3-1	24 X 57		1									Single Post Assembly P434
	M1-6	24 X 24							4.00				ASSEMBLY "142" P434
	M3-2	24 X 12							2.00				ASSEMBLY "EAST" P434
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P434
P435	R5-1	30 X 30	1						6.25				
P436	J4-1	36 X 51		1									Single Post Assembly P436
	M1-6	36 X 36							9.00				ASSEMBLY "142" P436
	M4-6	30 X 15							3.13				ASSEMBLY "END" P436
P437	D1-1	78 X 15		2					8.13				SEE DETAIL
P438	W1-6	48 X 24	1						8.00				Angle Toward Traffic
P439	W1-6	48 X 24	1						8.00				Angle Toward Traffic
P440A	W13-1	24 X 24							4.00				10 mph P440B
P440B	W1-1R	36 X 36		1					9.00				
P441	W4-6	48 X 48			1				16.00				
P442	W1-7	48 X 24		1					8.00				
P443	W4-6	48 X 48			1				16.00				
P444	W1-60	48 X 24	1						8.00				Angle Toward Traffic
P445	W1-60	48 X 24	1						8.00				Angle Toward Traffic
P446	W1-7	48 X 24		1					8.00				
E400	EXIST	0 0											Existing Sign to Remain
E401	EXIST	0 0											Existing Sign to Remain
E402	EXIST	0 0											Existing Sign to Remain
E403	EXIST	0 0											Existing Sign to Remain
E404	EXIST	0 0											Existing Sign to Remain
E405	EXIST	0 0											Existing Sign to Remain
E406	EXIST	0 0											Existing Sign to Remain

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 237
6/29/2007

3

3

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN			634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
E407	EXIST	0		0											Existing Sign to Remain
E408	EXIST	0		0											Existing Sign to Remain
E409	EXIST	0		0											Existing Sign to Remain
E410	EXIST	0		0											Existing Sign to Remain
R401	R3-1	0		0								1	1		
R402	R3-1	0		0								1	1		
R403	R3-2	0		0								1	1		
E411	EXIST	0		0											Existing Sign to Remain
E412	EXIST	0		0											Existing Sign to Remain
E413	EXIST	0		0											Existing Sign to Remain
E414	EXIST	0		0											Existing Sign to Remain
E415	EXIST	0		0											Existing Sign to Remain
E416	EXIST	0		0											Existing Sign to Remain
E417	EXIST	0		0											Existing Sign to Remain
E418	EXIST	0		0											Existing Sign to Remain
E419	EXIST	0		0											Existing Sign to Remain
E420	EXIST	0		0											Existing Sign to Remain
E421	EXIST	0		0											Existing Sign to Remain
E422	EXIST	0		0											Existing Sign to Remain
E423	EXIST	0		0											Existing Sign to Remain
P500	J1-2	48	X	39											Double Post Assembly P500
	M1-6	24	X	24							4.00				ASSEMBLY "83" P500
	M1-6	24	X	24							4.00			4.00	ASSEMBLY "36" P500 COVER
	M1-6	24	X	24							4.00			4.00	ASSEMBLY "11" P500 COVER
	M2-1	21	X	15							2.19				ASSEMBLY "JCT" P500
	M2-1	21	X	15							2.19			2.19	ASSEMBLY "JCT" P500 COVER
	M2-1	21	X	15							2.19			2.19	ASSEMBLY "JCT" P500 COVER
	M4-2	24	X	12							2.00				SEPARATE SIGN "BY-PASS" P500
P501	W3-3	36	X	36		1					9.00				16" X 16" FLAGS REQD
P502A	J3-3	72	X	57		2									Triple Post Assembly P502A
	M1-6	24	X	24							4.00				ASSEMBLY "36" P502A
	M1-6	24	X	24							4.00				ASSEMBLY "36" P502A
	M1-6	24	X	24							4.00				ASSEMBLY "11" P502A
	M3-1	24	X	12							2.00				ASSEMBLY "NORTH" P502A
	M3-3	24	X	12							2.00				ASSEMBLY "SOUTH" P502A
	M3-2	24	X	12							2.00				ASSEMBLY "EAST" P502A
	M5-1L	21	X	21							3.06				ASSEMBLY LT TURN ARROW P502A
	M5-1R	21	X	21							3.06				ASSEMBLY RT TURN ARROW P502A
	M5-1R	21	X	21							3.06				ASSEMBLY RT TURN ARROW P502A
	M6-1	21	X	21							3.06				ASSEMBLY FORWARD ARROW P502A
	MO4-5	24	X	12							2.00				SEPARATE SIGN "TO" P502A
	MO4-5	24	X	12							2.00				SEPARATE SIGN "TO" P502A
	MO4-5	24	X	12							2.00				SEPARATE SIGN "TO" P502A
P502B	J3-3	72	X	57		2									Triple Post Assembly P502B
	M1-6	24	X	24							4.00				ASSEMBLY "83" P502B
	M1-6	24	X	24							4.00				ASSEMBLY "83" P502B
	M1-6	24	X	24							4.00				ASSEMBLY "11" P502B
	M3-1	24	X	12							2.00				ASSEMBLY "NORTH" P502B
	M3-3	24	X	12							2.00				ASSEMBLY "SOUTH" P502B
	M3-4	24	X	12							2.00				ASSEMBLY "WEST" P502B
	M5-1L	21	X	21							3.06				ASSEMBLY LT TURN ARROW P502B
	M5-1R	21	X	21							3.06				ASSEMBLY RT TURN ARROW P502B
	M5-1R	21	X	21							3.06				ASSEMBLY RT TURN ARROW P502B
	MO4-5	24	X	12							2.00				SEPARATE SIGN "TO" P502B
	M4-2	24	X	12							2.00				SEPARATE SIGN "BY-PASS" P502B
P503	D1-2	72	X	30	2						15.00				SEE DETAIL
P504	J3-2	48	X	57		2									Double Post Assembly P504
	M1-6	24	X	24							4.00				ASSEMBLY "36" P504
	M1-6	24	X	24							4.00				ASSEMBLY "83" P504
	M3-1	24	X	12							2.00				ASSEMBLY "NORTH" P504

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 238
6/29/2007

3

3

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS WOOD 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P504
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P504
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P504
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P504
P505	J3-3	72 X 57		2									Triple Post Assembly P505
	M1-6	24 X 24							4.00				ASSEMBLY "83" P505
	M1-6	24 X 24							4.00				ASSEMBLY "36" P505
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P505 COVER
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P505
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P505
	M3-4	24 X 12							2.00			2.00	ASSEMBLY "WEST" P505 COVER
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P505
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P505
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P505 COVER
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P505
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P505
P506	R1-2	36 X 31	1						3.88				
P507	W12-1D	24 X 24	1						4.00				
P508	R1-2	36 X 31	1						3.88				
P509	W12-1D	24 X 24	1						4.00				
P505	J3-2	48 X 57		2									Double Post Assembly P505
	M1-6	24 X 24							4.00				ASSEMBLY "83" P505
	M1-6	24 X 24							4.00				ASSEMBLY "36" P505
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P505
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P505
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P505
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P505
	MO4-5	24 X 12							2.00				ORANGE TEMP "TO" P505
P510	J3-2	48 X 57		2									Triple Post Assembly P512
	M1-6	24 X 24							4.00				ASSEMBLY "83" P510
	M1-6	24 X 24							4.00				ASSEMBLY "36" P510
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P510
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P510
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P510
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P510
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P510
P512	J3-3	72 X 57		2									Triple Post Assembly P512
	M1-6	24 X 24							4.00				ASSEMBLY "83" P512
	M1-6	24 X 24							4.00				ASSEMBLY "36" P512
	M1-6	24 X 24							4.00				ASSEMBLY "11" P512
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P512
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P512
	M3-4	24 X 12							2.00				ASSEMBLY "WEST" P512
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P512
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P512
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P512
	MO6-1	21 X 21							3.06				ORANGE TEMP FORWARD ARROW P512
	MO4-5	24 X 12							2.00				ORANGE TEMP "TO" P512
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P512
P513	D1-2	78 X 30	2						16.25				SEE DETAIL
P514	J2-3	48 X 57			1		2						Double Post Assembly P514
	M1-6	24 X 24							4.00				ASSEMBLY "36" P514
	M1-6	24 X 24							4.00				ASSEMBLY "36" P514
	M3-1	24 X 12							2.00				ASSEMBLY "SOUTH" P514
	M3-3	24 X 12							2.00				ASSEMBLY "NORTH" P514
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P514
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P514
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P514
	M4-5	24 X 12							2.00				SEPARATE SIGN "TO" P514
	J3-3	72 X 57											Triple Post Assembly P514

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 239
6/29/2007

3

3

PROJECT NUMBER: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET NO: 239	E

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
	M1-6	24 X 24							4.00				ASSEMBLY "83" P514
	M1-6	24 X 24							4.00				ASSEMBLY "83" P514
	M1-6	24 X 24							4.00				ASSEMBLY "11" P514
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P514
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P514
	M3-4	24 X 12							2.00				ASSEMBLY "WEST" P514
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P514
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P514
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P514
	MO6-1	21 X 21							3.06				ORANGE TEMP FORWARD ARROW P514
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P514
	MO4-5	24 X 12							2.00				ORANGE TEMP "TO" P514
P515	W3-3	36 X 36		1					9.00				16" X 16" FLAGS REQD
P516	J1-2	48 X 36	2										Double Post Assembly P516
	M1-6	24 X 24							4.00				ASSEMBLY "83" P516
	M1-6	24 X 24							4.00				ASSEMBLY "36" P516
	M2-1	24 X 12							2.00				ASSEMBLY "JCT" P516
	M2-1	24 X 12							2.00				ASSEMBLY "JCT" P516
P517	W3-5	36 X 36		1					9.00				
P518	R1-1F	36 X 36	1						9.00				
P519	R1-1F	36 X 36	1						9.00				
P520	W5-54	18 X 18							2.25				E505
P521	W5-54	18 X 18							2.25				E511
E500	EXIST	0 0											Existing Sign to Remain
E501	EXIST	0 0											Existing Sign to Remain
E502	EXIST	0 0											Existing Sign to Remain
E503	EXIST	0 0											Existing Sign to Remain
E504	EXIST	0 0											Existing Sign to Remain
E505	EXIST	0 0											Existing Sign to Remain
E507	EXIST	0 0											Existing Sign to Remain
E508	EXIST	0 0											Existing Sign to Remain
E509	EXIST	0 0											Existing Sign to Remain
E510	EXIST	0 0											Existing Sign to Remain
E511	EXIST	0 0											Existing Sign to Remain
E513	EXIST	0 0											Existing Sign to Remain
E514	EXIST	0 0											Existing Sign to Remain
E515	EXIST	0 0											Existing Sign to Remain
E516	EXIST	0 0											Existing Sign to Remain
E517	EXIST	0 0											Existing Sign to Remain
R500	R3-2	0 0								1	1		
R501	R3-1	0 0								1	1		
R502	R3-1	0 0								1	1		
R503	R3-2	0 0								1	1		
R504	R4-7	0 0								1	1		
P600	W5-52R	12 X 36	1						3.00				
P601	W5-52L	12 X 36	1						3.00				
P602	W5-52L	12 X 36	1						3.00				
P603	W5-52R	12 X 36	1						3.00				
P604	R2-1	24 X 30	1						5.00				
P605	R2-1	24 X 30	1						5.00				
P606	W3-5	36 X 36		1					9.00				
R600	R2-1	0 0								1	1		
R601	R2-1	0 0								1	1		
R602	R2-5A	0 0								1	1		
P700	J1-3	72 X 36	3										Triple Post Assembly P700
	M1-6	24 X 24							4.00				ASSEMBLY "83" P700
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P700 COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P700 COVER
	M2-1	21 X 15							2.19				ASSEMBLY "JCT" P700

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: FOR THE SIGNS SHOWN ON THIS SHEET, NO CHANGES HAVE BEEN MADE

ADD #1
REV SHT 240
6/29/2007

3

3

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
	M2-1	21 X 15							2.19			2.19	ASSEMBLY "JCT" P700 COVER
	M2-1	21 X 15							2.19			2.19	ASSEMBLY "JCT" P700 COVER
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P700
P701A	J32-3	48 X 69		3									Triple Post Assembly P701A
	M1-6	24 X 24							4.00				ASSEMBLY "83" P701A
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P701A COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P701A COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P701A
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P701A COVER
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P701A COVER
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P701A
	M5-1L	21 X 21							3.06			3.06	ASSEMBLY LT TURN ARROW P701A COVER
	M5-1L	21 X 21							3.06			3.06	ASSEMBLY LT TURN ARROW P701A COVER
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P701A
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P701A COVER
	M4-2	24 X 12							2.00			2.00	ASSEMBLY "BY-PASS" P701A
P701B	J32-2	48 X 69		3									Double Post Assembly P701B
	M1-6	24 X 24							4.00				ASSEMBLY "83" P701B
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P701B COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P701B
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P701B COVER
	M6-1	21 X 21							3.06				ASSEMBLY FORWARD ARROW P701B
	M6-1	21 X 21							3.06			3.06	ASSEMBLY FORWARD ARROW P701B COVER
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P701B
	M3-1	24 X 12							2.00			2.00	ASSEMBLY "NORTH" P701B COVER
E700	EXIST	0 0											Existing Sign to Remain
E701	EXIST	0 0											Existing Sign to Remain
E702	EXIST	0 0											Existing Sign to Remain
E703	EXIST	0 0											Existing Sign to Remain
P702	W1-6	48 X 24	1						8.00				Angle Toward Traffic
P702B	D1-1	96 X 21	2						14.00				SEE DETAIL
P703	J4-1	24 X 36	1										Single Post Assembly P703
	M1-6	24 X 24							4.00				ASSEMBLY "A" P703
	M3-4	24 X 12							2.00				ASSEMBLY "WEST" P703
P704A	J33-3	48 X 69		3									Triple Post Assembly P704A
	M1-6	24 X 24							4.00				ASSEMBLY "83" P704A
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P704A COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P704A COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P704A
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P704A COVER
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P704A COVER
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P704A
	M6-1	21 X 21							3.06			3.06	ASSEMBLY LT ARROW P704A COVER
	M6-1	21 X 21							3.06			3.06	ASSEMBLY LT ARROW P704A COVER
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P704A
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P704A COVER
	M4-2	24 X 12							2.00			2.00	ASSEMBLY "BY-PASS" P704A COVER
P704B	J33-2	48 X 69		3									Double Post Assembly P704B
	M1-6	24 X 24							4.00				ASSEMBLY "83" P704B
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P704B COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P704B
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P704B COVER
	M6-1	21 X 21							3.06				ASSEMBLY FORWARD ARROW P704B
	M6-1	21 X 21							3.06			3.06	ASSEMBLY FORWARD ARROW P704B COVER
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P704B
	M3-1	24 X 12							2.00			2.00	ASSEMBLY "NORTH" P704B COVER
P705	R4-7	24 X 30	1						5.00				
P706	J4-1	24 X 36	1										Single Post Assembly P706
	M1-6	24 X 24							4.00				ASSEMBLY "A" P706
	M3-2	24 X 12							2.00				ASSEMBLY "EAST" P706

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS AND ADDITIONS.

SIGNS REMOVED FROM THIS SHEET: P701 & P704

SIGNS ADDED TO THIS SHEET: P701A,P701B,P704A & P704B

ADD #1
REV SHT 241
6/29/2007

PROJECT NUMBER: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET NO: 241	E

FILE NAME: S:\DOT\DOT_SE\04081\WORK FOR 09\ESTIMATES\04081_MISCQUANT_09.ppt
ORIGINATOR: JUSTIN M. ARNDT
ORIG. DATE: MARCH 3, 2006
PLOTTED DATE: 6/13/2007 11:44 AM

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
P707	J33-3	48 X 69		3									Triple Post Assembly P707
	M1-6	24 X 24							4.00				ASSEMBLY "83" P707
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P707 COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P707 COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P707
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P707 COVER
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P707 COVER
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P707
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P707 COVER
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P707 COVER
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P707
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P707 COVER
	M4-2	24 X 12							2.00			2.00	ASSEMBLY "BY-PASS" P707 COVER
P708	R1-1	36 X 36	1						9.00				
P709	J3-2	48 X 57		3									Triple Post Assembly P709
	M1-6	24 X 24							4.00				ASSEMBLY "A" P709
	M1-6	24 X 24							4.00				ASSEMBLY "A" P709
	M3-2	21 X 15							2.19				ASSEMBLY "EAST" P709
	M3-4	21 X 15							2.19				ASSEMBLY "WEST" P709
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P709
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P709
P710	R1-1	36 X 36							9.00				P705
P712A	J2-2	48 X 57		2									Double Post Assembly P712A
	M1-6	24 X 24							4.00				ASSEMBLY "A" P712A
	M1-6	24 X 24							4.00				ASSEMBLY "A" P712A
	M3-2	21 X 15							2.19				ASSEMBLY "EAST" P712A
	M3-4	21 X 15							2.19				ASSEMBLY "WEST" P712A
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P712A
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P712A
P712B	J2-2	48 X 57											Double Post Assembly ON P711A
	M1-6	24 X 24							4.00				ASSEMBLY "A" P712B
	M1-6	24 X 24							4.00				ASSEMBLY "A" P712B
	M3-2	21 X 15							2.19				ASSEMBLY "EAST" P712B
	M3-4	21 X 15							2.19				ASSEMBLY "WEST" P712B
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P712B
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P712B
P713	J33-3	72 X 69		3									Triple Post Assembly P713
	M1-6	24 X 24							4.00				ASSEMBLY "83" P713
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P713 COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P713 COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P713
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P713 COVER
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P713 COVER
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P713
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P713 COVER
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P713 COVER
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P713
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P713 COVER
	M4-2	24 X 12							2.00			2.00	ASSEMBLY "BY-PASS" P713 COVER
P717	J32-3	72 X 69		3									Triple Post Assembly P717
	M1-6	24 X 24							4.00				ASSEMBLY "83" P717
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P717 COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P717 COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P717
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P717 COVER
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P717 COVER
	M5-1L	21 X 21							3.06				ASSEMBLY RT TURN ARROW P717
	M5-1L	21 X 21							3.06			3.06	ASSEMBLY RT TURN ARROW P717 COVER
	M5-1L	21 X 21							3.06			3.06	ASSEMBLY RT TURN ARROW P717 COVER
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P717

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS AND ADDITIONS.

SIGNS REMOVED FROM THIS SHEET: P711A,P711B,P713A,P713B, P714,P715 & P716,

SIGNS ADDED TO THIS SHEET: P713

ADD #1
REV SHT 242
6/29/2007

PROJECT NUMBER: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET NO: 242	E

FILE NAME: S:\DOT\DOT_SE\04081\WORK FOR 09\ESTIMATES\04081_MISCQUANT_09.ppt
ORIGINATOR: JUSTIN M. ARNDT
ORIG. DATE: MARCH 3, 2006
PLOTTED DATE: 6/13/2007 11:44 AM

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS POSTS 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P717 COVER
	M4-2	24 X 12							2.00			2.00	ASSEMBLY "BY-PASS" P717
P721	W1-6	48 X 24	1						8.00				Angle Toward Traffic
P722	W1-7	48 X 24	1						8.00				
P723	R4-7	24 X 30							5.00				P726
P724	R1-1	36 X 36	1						9.00				
P725	J3-2	48 X 57		3									Double Post Assembly P725
	M1-6	24 X 24							4.00				ASSEMBLY "A" P725
	M1-6	24 X 24							4.00				ASSEMBLY "A" P725
	M3-2	21 X 15							2.19				ASSEMBLY "WEST" P725
	M3-4	21 X 15							2.19				ASSEMBLY "EAST" P725
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P725
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P725
P726	R1-1	36 X 36	1						9.00				
P728	W1-6	48 X 24	1						8.00				Angle Toward Traffic
P729	J33-2	48 X 69		3									Double Post Assembly P729
	M1-6	24 X 24							4.00				ASSEMBLY "83" P729
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P729 COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P729
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P729 COVER
	M6-1	21 X 21							3.06				ASSEMBLY LT ARROW P729
	M6-1	21 X 21							3.06			3.06	ASSEMBLY LT ARROW P729 COVER
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P729
	M3-1	24 X 12							2.00			2.00	ASSEMBLY "NORTH" P729 COVER
P730	J33-3	72 X 69		3									Triple Post Assembly P730
	M1-6	24 X 24							4.00				ASSEMBLY "83" P730
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P730 COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P730 COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P730
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P730 COVER
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P730 COVER
	M6-1	21 X 21							3.06				ASSEMBLY RT ARROW P730
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P730 COVER
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT ARROW P730 COVER
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P730
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P730 COVER
	M4-2	24 X 12							2.00			2.00	ASSEMBLY "BY-PASS" P730 COVER
P731	J33-2	48 X 69		3									Double Post Assembly P731
	M1-6	24 X 24							4.00				ASSEMBLY "83" P731
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P731 COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P731
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P731 COVER
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P731
	M5-1L	21 X 21							3.06			3.06	ASSEMBLY LT TURN ARROW P731 COVER
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P731
	M3-1	24 X 12							2.00			2.00	ASSEMBLY "NORTH" P731 COVER
P732	J33-3	72 X 69		3									Triple Post Assembly P732
	M1-6	24 X 24							4.00				ASSEMBLY "83" P732
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P732 COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P732 COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P732
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P732 COVER
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P732 COVER
	M6-1	21 X 21							3.06				ASSEMBLY FORWARD ARROW P732
	M6-1	21 X 21							3.06			3.06	ASSEMBLY FORWARD ARROW P732 COVER
	M6-1	21 X 21							3.06			3.06	ASSEMBLY FORWARD ARROW P732 COVER
	M3-3	24 X 12							2.00				ASSEMBLY "SOUTH" P732
	M3-3	24 X 12							2.00			2.00	ASSEMBLY "SOUTH" P732 COVER

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS AND ADDITIONS.

SIGNS REMOVED FROM THIS SHEET:
P718A,P718B,P719,P720,

SIGNS ADDED TO THIS SHEET:
P724,P725,P726,P728,P729, P730,P731 & P732

ADD #1
REV SHT 243
6/29/2007

3

3

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS WOOD 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
	M4-2	24 X 12							2.00			2.00	ASSEMBLY "BY-PASS" P732 COVER
P733	J1-3	72 X 36	3										Triple Post Assembly P733
	M1-6	24 X 24							4.00				ASSEMBLY "83" P733
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P733 COVER
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "11" P733 COVER
	M2-1	21 X 15							2.19				ASSEMBLY "JCT" P733
	M2-1	21 X 15							2.19			2.19	ASSEMBLY "JCT" P733 COVER
	M2-1	21 X 15							2.19			2.19	ASSEMBLY "JCT" P733 COVER
	M4-2	24 X 12							2.00				SEPARATE SIGN "BY-PASS" P733
P735	J32-2	48 X 69		3									Double Post Assembly P735
	M1-6	24 X 24							4.00				ASSEMBLY "83" P735
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P735 COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P735
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P735 COVER
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P735
	M5-1R	21 X 21							3.06			3.06	ASSEMBLY RT TURN ARROW P735 COVER
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P735
	M3-1	24 X 12							2.00			2.00	ASSEMBLY "NORTH" P735 COVER
P736	J33-2	48 X 69		3									Double Post Assembly P736
	M1-6	24 X 24							4.00				ASSEMBLY "83" P736
	M1-6	24 X 24							4.00			4.00	ASSEMBLY "36" P736 COVER
	M4-5	24 X 12							2.00				ASSEMBLY "TO" P736
	M4-5	24 X 12							2.00			2.00	ASSEMBLY "TO" P736 COVER
	M6-1	21 X 21							3.06				ASSEMBLY RT TURN ARROW P736
	M6-1	21 X 21							3.06			3.06	ASSEMBLY RT TURN ARROW P736 COVER
	M3-1	24 X 12							2.00				ASSEMBLY "NORTH" P736
	M3-1	24 X 12							2.00			2.00	ASSEMBLY "NORTH" P736 COVER
P737	D1-1	96 X 21	2						14.00				SEE DETAIL
P738	W1-6	48 X 24	1						8.00				Angle Toward Traffic
P739	J2-2	48 X 57		2									Double Post Assembly P739
	M1-6	24 X 24							4.00				ASSEMBLY "A" P739
	M1-6	24 X 24							4.00				ASSEMBLY "A" P739
	M3-2	21 X 15							2.19				ASSEMBLY "WEST" P739
	M3-4	21 X 15							2.19				ASSEMBLY "EAST" P739
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P739
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P739
P740	J2-2	48 X 57											Double Post Assembly ON P711A
	M1-6	24 X 24							4.00				ASSEMBLY "A" P740
	M1-6	24 X 24							4.00				ASSEMBLY "A" P740
	M3-2	21 X 15							2.19				ASSEMBLY "WEST" P740
	M3-4	21 X 15							2.19				ASSEMBLY "EAST" P740
	M5-1L	21 X 21							3.06				ASSEMBLY LT TURN ARROW P740
	M5-1R	21 X 21							3.06				ASSEMBLY RT TURN ARROW P740

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS AND ADDITIONS.

SIGNS ADDED TO THIS SHEET: P733,P735,P736,P737,P738, P739 & P740

ADD #1
NEW SHT 243B
6/29/2007

3

3

PERMANENT SIGNING (CONTINUED)

SIGN #	SIGN CODE	SIGN SIZE IN	634.0614 POSTS WOOD 4x6-Inch x 14 Ft EACH	634.0616 POSTS WOOD 4x6-Inch x 16 Ft EACH	634.0618 POSTS WOOD 4x6-Inch x 18 Ft EACH	634.0620 POSTS WOOD 4x6-Inch x 20 Ft EACH	634.0622 POSTS WOOD 4x6-Inch x 22 Ft EACH	634.0814 POSTS TUBULAR STEEL 2x2-Inch x 14 Ft EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORT EACH	SPV.0165.03 COVER SIGNS TYPE II SF	SHARED POST # OR REMARKS
E704	EXIST	0 X 0											Existing Sign to Remain
E705	EXIST	0 X 0											Existing Sign to Remain
E706	EXIST	0 X 0											Existing Sign to Remain
E707	EXIST	0 X 0											Existing Sign to Remain
E708	EXIST	0 X 0											Existing Sign to Remain
E709	EXIST	0 X 0											Existing Sign to Remain
E710	EXIST	0 X 0											Existing Sign to Remain
E711	EXIST	0 X 0											Existing Sign to Remain
E712	EXIST	0 X 0											Existing Sign to Remain
E713	EXIST	0 X 0											Existing Sign to Remain
E714	EXIST	0 X 0											Existing Sign to Remain
E715	EXIST	0 X 0											Existing Sign to Remain
P800A	R3-4B	36 X 48	1						12.00				
P800B	R3-4B	36 X 48	1						12.00				
P801A	E5-1	60 X 48			2				20.00				
P801B	E13-1	60 X 24							10.00				25 MPH P801A
P802A	W13-2A	48 X 90					1		30.00				MODIFY
P802B	D1-2	48 X 36							12.00				P802A
P803A	W1-13R	48 X 48			1				16.00				25 MPH
P803B	W13-1	24 X 24							4.00				P803A
P804A	W1-2	36 X 36			1				9.00				50 MPH
P804B	W13-1	24 X 24							4.00				P804A
E800	EXIST	0 X 0											Existing Sign to Remain
E801	EXIST	0 X 0											Existing Sign to Remain
E802	EXIST	0 X 0											Existing Sign to Remain
E803	EXIST	0 X 0											Existing Sign to Remain
	TOTAL		142	191	59	17	4	3	5,005	21	21	595	

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS AND ADDITIONS.

ADD #1
REV SHT 244
6/29/2007

TRAFFIC CONTROL

LOCATION	STAGE	DAYS DURATION	643.0300 TRAFFIC CONTROL DRUMS NUMBER	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NUMBER	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0422.S TRAFFIC CONTROL BARRICADES PERMANENT TYPE III EA	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NUMBER	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS NUMBER	643.0800 TRAFFIC CONTROL ARROW BOARDS DAYS	643.0900 TRAFFIC CONTROL SIGNS NUMBER	643.0900 TRAFFIC CONTROL SIGNS DAYS
STH 36/83 INTERCHANGE	ALL	427		0	5	2135		6	2562	7	2989	21	8967
CTH A	ALL	427		0	18	7686		8	3416		0	10	4270
KETTERHAGEN ROAD	1	122		0	8	976		4	488		0	6	732
	2	305		0	12	3660		6	1830		0	7	2135
STH 11	ALL	427		0	34	14518		12	5124		0	33	14091
STH 142	ALL	427		0	18	7686		4	1708		0	16	6832
BREVER ROAD	1	122		0	8	976		4	488		0	6	732
	2	305		0	12	3660		6	1830		0	7	2135
STH 83	1	0	0	0	0	0		0	0		0	0	0
	2A	121	52	6292	8	968		4	484		0	6	726
	2B	184	52	9568	16	2944		8	1472		0	8	1472
BYPASS AT STH 83 *	3	7	3	21	0	0	28	0	0	2	14	18	126
TOTAL				15881		45209	28		19402		3003		42218

* = Stage 3 is the placing of permanent traffic control prior to opening up the east half of the bypass. One week is assumed from completion of permanent traffic control to project 3180-10-70 completion and sign off. Contractor for Project 3180-11-70 will assume surveillance and maintenance responsibilities after sign off of project 3180-10-70.

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

TRAFFIC CONTROL SURVEILLANCE & MAINTANENCE

LOCATION	643.0200 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE DAYS
PROJECT 3180-10-70	427
	427

REMOVING PAVEMENT MARKING

STATION	LOCATION	646.0600 REMOVING PAVEMENT MARKING LF	DESCRIPTION
171+00 - 178+00	STH 36/83 NB RAMP	175	WHITE SKIP (12.5' LINE W/ 37.5' SPACE)
178+00 - 184+60	STH 36/83 NB RAMP	660	WHITE EDGELINE ACROSS OUTSIDE LANE
184+60 - 186+00	STH 36/83 NB RAMP	140	WHITE EDGELINE BETWEEN LANES
TOTAL		975	

3

TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE

LOCATION	LOCATION	NO. OF DEVICES	SERVICE DAY PERIODS	643.1050.S TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE DAYS
STH 36/83 (NB)	SOUTH OF CTH W	1	427	427
BYPASS (WB)	EAST OF CTH J	1	427	427
PROJECT 3180-10-70 TOTAL				854

TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS & BASES

STATION - STATION	LOCATION	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR BASES EACH
1127+00 - 1150+25	BYPASS	111	111
		111	111

TRAFFIC CONTROL DETOUR SIGNS

LOCATION	DAYS DURATION	643.3000 DETOUR SIGNS NUMBER	DAYS
STH 83	215	137	29,455
PROJECT 3180-10-70 TOTAL		137	29,455

TRAFFIC CONTROL COVERING SIGNS

LOCATION	643.0905.S TRAFFIC CONTROL COVERING SIGNS EACH
PROJECT 3180-10-70 UNDISTRIBUTED	20
PROJECT 3180-10-70 TOTAL	20

ADD #1
NEW SHT 244B
6/29/2007

PROJECT NUMBER: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET NO: 244B	E

FILE NAME: S:\DOT\DOT_SE\04081\WORK FOR 09\ESTIMATES\04081_MISCQUANT_09.ppt
ORIGINATOR: JUSTIN M. ARNDT
ORIG. DATE: MARCH 3, 2006
PLOTTED DATE: 6/13/2007 11:44 AM

PAVEMENT MARKING

STATION	LOCATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH (WHITE) LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH (YELLOW) LF	646.0406 PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW) LF	646.0821.S PAVEMENT MARKING RAISED PATTERN TAPE 4-INCH (WHITE) LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH (WHITE) LF	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 (WHITE) EACH	647.0356 PAVEMENT MARKING WORDS EPOXY (WHITE) EACH	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE) LF	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW) EACH	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE) LF	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW) LF
340+80 - 355+00	STH 83	2,988	2,229			176	1	1	70	6		8
355+00 - 369+35	STH 83	3,276	2,870							3		9
1125+93 - 1138+00	BYPASS	2,871	2,805		604	734			40	6	80	
1138+00 - 1153+00	BYPASS	3,000	3,000		750							
97+00 - 108+00	BREVER ROAD	2,200		2,200								
108+00 - 118+00	BREVER ROAD	2,000		2,000								
1153+00 - 1168+00	BYPASS	3,030	3,000		750	70	1	1				
1168+00 - 1183+00	BYPASS	2,540	3,000		750	1,485	3	3		4		
101+08 - 113+00	STH 142	2,398		2,384								
113+00 - 128+00	STH 142	2,745		3,000		360	4	3				
128+00 - 143+39	STH 142	2,942		3,078		219	2	2				
100+00 - 104+25	MT TOM ROAD	848		99					36			
50+00 - 60+63	STH 142 NE RAMP	2,096	1,936			150	4	2	45	1		
38+92 - 50+00	STH 142 SW RAMP	2,186	2,029			152	4	2	45	1		
1183+00 - 1198+00	BYPASS	3,005	3,000		750							
1198+00 - 1213+00	BYPASS	3,000	3,000		750							
1213+00 - 1228+00	BYPASS	3,000	3,000		750							
1228+00 - 1243+00	BYPASS	3,000	3,000		750							
1243+00 - 1258+00	BYPASS	3,000	3,000		750							
1258+00 - 1273+00	BYPASS	3,030	3,000		750	108						
1273+00 - 1288+00	BYPASS	4,409	3,859		698	1,336	4	4	128	12	140	
1288+00 - 1303+00	BYPASS	3,000	300		750							
115+67 - 125+00	STH 11	1,866		1,866						1		25
125+00 - 140+00	STH 11	2,871		3,967		487	2	2	48	9	110	73
140+00 - 155+00	STH 11	3,000		3,000								
155+00 - 168+00	STH 11	2,600		2,225								
1303+00 - 1318+00	BYPASS	3,000	3,000		750							
1318+00 - 1333+00	BYPASS	3,000	3,000		750							
91+00 - 100+50	KETTERHAGEN ROAD	1,900		1,900								
100+50 - 110+75	KETTERHAGEN ROAD	2,050		2,050								
1333+00 - 1348+00	BYPASS	3,000	3,000		750							
1348+00 - 1363+00	BYPASS	2,935	3,000		750	438	2	2				
1363+00 - 1378+00	BYPASS	2,558	3,000		750	1,121	2	2				
1378+00 - 1393+00	BYPASS	3,000	3,000		750	100						
37+69 - 45+00	CTH A	1,401		914								
48+00 - 50+00	OLD CTH A	389		45					19			
45+00 - 60+00	CTH A	2,792		2,463		445	4	4				
50+00 - 58+75	CTH A NW RAMP	1,746	1,622			370	4	2	54	3		11
60+00 - 70+25	CTH A	1,697		2,050		200	2	2				
39+60 - 49+75	CTH A SE RAMP	2,090	2,066			378	4	2	49	3		11
49+63 - 52+27	RIVER ROAD	534		63					29			
171+00 - 184+00	STH 36/83 NB RAMP	1,300				260						
184+00 - 199+00	STH 36/83 NB RAMP	869				840				1		
192+69 - 199+00	STH 36/83 NB TO SB RAMP	631	265			371						
199+00 - 203+00	STH 36/83 NB TO SB RAMP	400	422									
1393+00 - 1399+00	BYPASS	1,194	1,193		300	1,178				1		
1399+00 - 1415+00	BYPASS	2,638	3,000		800	290						
1415+00 - 1430+00	BYPASS	245	1,500		750							
1436+13 - 1464+10	BYPASS	153	150									
TOTAL		110,500	71,300	33,400	15,200	11,270	43	34	563	51	330	137

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS AND ADDITIONS.

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

ADD #1, REV SHT 245, 6/29/2007

PROJECT NUMBER: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET NO: 245	E

FILE NAME: S:\DOT\DOT_SE\04081\WORK FOR 09\ESTIMATES\04081_MISCQUANT_09.ppt

ORIGINATOR: JUSTIN M. ARNDT

ORIG. DATE: MARCH 3, 2006

PLOTTED DATE: 6/13/2007 11:44 AM

ADD #1
REV SHT 246
6/29/2007

3

TEMPORARY PAVEMENT MARKING

STATION	LOCATION	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH WHITE LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH YELLOW LF
349+25 - 351+65	STH 83	–	240
350+01 - 355+05	STH 83	505	--
1130+42 - 1132+27	BYPASS	183	--
1130+78 - 1132+27	BYPASS	147	--
1132+31 - 1133+37	BYPASS	105	--
1141+40 - 1148+00	BYPASS	660	--
TOTAL		1,600	240

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS AND ADDITIONS.

3

CONSTRUCTION STAKING

STATION	LOCATION	650.4000 CONSTRUCTION STAKING STORM SEWER SYSTEM LF	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.6500.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) LS	650.6500.02 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) LS	650.6500.03 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) LS	650.7500 CONSTRUCTION STAKING BARRIER WALL LF	650.9900 CONSTRUCTION STAKING INITIAL LAYOUT LF
1123+94 - 1132+66	BYPASS		506	872						506
1143+04 1154+00				1096						
1154+00 - 1156+00	BYPASS		200	200						200
1156+00 - 1278+35	BYPASS			12235						
1280+10 - 1326+00	BYPASS			4590						
1326+00 - 1334+00	BYPASS		800	800						800
1334+00 - 1389+48	BYPASS			5548						
1393+34 - 1404+52	BYPASS			1118						
1404+52 - 1405+50	BYPASS			98					98	
1405+29 - 1409+40	BYPASS			350					411	
1409+00 - 1415+00	BYPASS			600						
340+80 - 369+35	STH 83	22	2855	2855						2855
97+00 - 118+00	BREVER ROAD	2	2100	2100	3					2100
51+20 - 60+17	STH 142 NE RAMP			897						
39+38 - 49+04	STH 142 SW RAMP			966						
91+00 - 110+75	KETTERHAGEN ROAD	5	1975	1975	2					1975
51+00 - 58+14	CTH A NW RAMP			714						
39+60 - 49+75	CTH A SE RAMP			1015						
196+00 - 203+70	STH 36/83 NB-SB RAMP			770						
C-51-22	STH 83					1				
B-51-95	BREVER ROAD						1			
B-51-101	KETTERHAGEN ROAD							1		
TOTAL		29	8436	38799	5	1	1	1	509	8436

SAWCUTS

STATION	OFFSET	LOCATION	690.0100 SAWING EXISTING PAVEMENT LF	690.0200 SAWING CONCRETE PAVEMENT FULL DEPTH LF
102+54	C/L	YAHNKE ROAD	49	
340+80	C/L	STH 83	18	25
343+34	RT	STH 83	34	--
355+75	RT	STH 83	24	--
357+49	RT	STH 83	16	--
360+69	RT	STH 83	24	--
362+06	RT	STH 83	37	--
364+41	LT	STH 83	25	--
368+25	LT	STH 83	12	--
369+35	C/L	STH 83	20	25
14+50	C/L	HIDDEN CREEK LANE	42	5
14+60	LT	HIDDEN CREEK LANE	18	--
97+00	C/L	BREVER RD	22	--
118+00	C/L	BREVER RD	22	--
101+08	C/L	STH 142	30	
143+39	C/L	STH 142	30	--
104+25	C/L	MT TOM RD	22	--
115+67	C/L	STH 11	30	--
168+00	C/L	STH 11	34	--
168+00 - 168+40	RT	STH 11	40	--
91+00	C/L	KETTERHAGEN RD	22	--
91+39	LT	KETTERHAGEN RD	16	--
110+75	C/L	KETTERHAGEN RD	22	--
13+26	C/L	MCCAAN DRIVE	16	--
37+69	C/L	CTH A	30	--
70+25	C/L	CTH A	30	--
48+00	C/L	OLD CTH A	22	--
52+25	C/L	RIVER RD	20	--
TOTAL			678	55

COVER SIGNS TYPE 1

STATION	LOCATION	SPV.0060.03 COVER SIGNS TYPE I EACH	DESCRIPTION	NOTE
171+00	STH 36/83	1	SIGN BRIDGE S-51-16	REMOVE EXISTING COVERING. COVER STH 36 & STH 11 SHIELDS
173+00	STH 36/83	1	TYPE 1 SIGN	REMOVE EXISTING COVERING
191+00	STH 36/83	1	SIGN BRIDGE S-51-14 (RT SIGN)	REMOVE EXISTING COVERING. COVER STH 36 & STH 11 SHIELDS & "ELKHORN"
1411+75	BYPASS	1	SIGN BRIDGE S-51-15 (RT SIGN)	REMOVE EXISTING COVERING
1411+75	BYPASS	1	SIGN BRIDGE S-51-15 (LT SIGN)	REMOVE EXISTING COVERING. COVER STH 36 & STH 11 SHIELDS & "ELKHORN"
1428+77	BYPASS	1	TYPE 1 SIGN	REMOVE EXISTING COVERING. COVER STH 36 & STH 11 SHIELDS & "ELKHORN"
1519+77	BYPASS	1	TYPE 1 SIGN	REMOVE EXISTING COVERING. COVER STH 36 & STH 11 SHIELDS & "ELKHORN"
TOTAL		7		

TEST ROLLING

STATION - STATION	LOCATION	SPV.0170.01 TEST ROLLING STA	211.0500 PREPARE FOUNDATION FOR BASE AGGREGATE STA
1123+94 - 1132+66	BYPASS EB & WB	17	17
1143+04 - 1278+35	BYPASS EB & WB	271	271
1280+10 - 1389+48	BYPASS EB & WB	219	219
1393+34 - 1415+00	BYPASS EB & WB	43	43
340+80 - 369+35	STH 83	29	
97+00 - 118+00	BREVER RD	21	
51+20 - 60+17	STH 142 NE RAMP EB & WB	18	18
39+38 - 49+04	STH 142 SW RAMP EB & WB	19	19
91+00 - 110+75	KETTERHAGEN ROAD	20	
51+00 - 58+14	CTH A NW RAMP NB & SB	14	14
39+60 - 49+75	CTH A SE RAMP NB & SB	20	20
196+00 - 203+70	STH 36/83 NB-SB RAMP	8	8
TOTAL		699	629

REVISION DATE: 5/25/07

REVISION NOTE: ITEMS HIGHLIGHTED REFLECT PLAN REVISIONS AND ADDITIONS.

ADD #1
REV SHT 247
6/29/2007

NOTE: ALL QUANTITES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

PROJECT NUMBER: 3180-10-70	HWY: BURLINGTON BYPASS	COUNTY: RACINE	MISCELLANEOUS QUANTITIES	SHEET NO: 247	E

FILE NAME: S:\DOT\DOT_SE\04081\WORK FOR 09\ESTIMATES\04081_MISCQUANT_09.ppt
ORIGINATOR: JUSTIN M. ARNDT
ORIG. DATE: MARCH 3, 2006
PLOTTED DATE: 6/13/2007 11:44 AM

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0210	208.0100 BORROW	350,609.000 CY		.		.
0220	209.0100 BACKFILL GRANULAR	41,579.000 CY		.		.
0230	210.0100 BACKFILL STRUCTURE	594.000 CY		.		.
0240	211.0500 PREPARE FOUNDATION FOR BASE AGGREGATE	629.000 STA		.		.
0250	213.0100 FINISHING ROADWAY (PROJECT) 01. 3180-10-70	1.000 EACH		.		.
0260	214.0100 OBLITERATING OLD ROAD	1.000 STA		.		.
0270	301.0100.S QMP BASE AGGREGATE	275,105.000 TON		.		.
0280	305.0110 BASE AGGREGATE DENSE 3/4-INCH	72,972.000 TON		.		.
0290	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	202,148.000 TON		.		.
0300	311.0110 BREAKER RUN	1,000.000 TON		.		.
0310	415.0070 CONCRETE PAVEMENT 7-INCH	38.000 SY		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0320	415.2000.S INCENTIVE STRENGTH CONCRETE PAVEMENT	400.000 DOL	1.00000		400.00	
0330	415.3000.S QMP CONCRETE PAVEMENT	2.000 DAY	.		.	
0340	416.0050 CONCRETE PAVEMENT APPROACH SLAB	152.000 SY	.		.	
0350	416.0170 CONCRETE DRIVEWAY 7-INCH	203.000 SY	.		.	
0360	416.0610 PAVEMENT TIES	40.000 EACH	.		.	
0370	416.1010 CONCRETE SURFACE DRAINS	64.000 CY	.		.	
0380	455.0115 ASPHALTIC MATERIAL PG64-22	3,793.000 TON	.		.	
0390	455.0120 ASPHALTIC MATERIAL PG64-28	2,050.000 TON	.		.	
0400	455.0605 TACK COAT	13,352.000 GAL	.		.	
0410	460.1103 HMA PAVEMENT TYPE E-3	92,246.000 TON	.		.	
0420	460.2000 INCENTIVE DENSITY HMA PAVEMENT	57,599.000 DOL	1.00000		57599.00	

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0430	460.2500.S QMP HMA PAVEMENT NUCLEAR DENSITY	92,246.000 TON		.		.
0440	460.3000 QMP HMA MIXTURE	92,246.000 TON		.		.
0450	465.0105 ASPHALTIC SURFACE	2,971.000 TON		.		.
0460	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	548.000 TON		.		.
0470	465.0125 ASPHALTIC SURFACE TEMPORARY	981.000 TON		.		.
0480	465.0315 ASPHALTIC FLUMES	180.000 SY		.		.
0490	465.0400 ASPHALTIC SHOULDER RUMBLE STRIP	102,297.000 LF		.		.
0500	502.0100 CONCRETE MASONRY BRIDGES	936.000 CY		.		.
0510	502.0400.S INCENTIVE STRENGTH CONCRETE STRUCTURES	908.000 DOL	1.00000		908.00	
0520	502.3200 PROTECTIVE SURFACE TREATMENT	1,976.000 SY		.		.
0530	502.6105 MASONRY ANCHORS TYPE S 5/8-INCH	22.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0760	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	2.000 EACH		.		.
0770	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	6.000 EACH		.		.
0780	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D	1,620.000 LF		.		.
0790	601.0554 CONCRETE CURB & GUTTER 4-INCH MOUNTABLE 36-INCH TYPE D	148.000 LF		.		.
0800	601.0558 CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D	30,762.000 LF		.		.
0810	602.0405 CONCRETE SIDEWALK 4-INCH	200.000 SF		.		.
0820	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW	80.000 SF		.		.
0830	603.0105 CONCRETE BARRIER SINGLE-FACED 32-INCH	509.000 LF		.		.
0840	603.0500 CONCRETE BARRIER TEMPORARY PRECAST CONTRACTOR FURNISHED & DELIVERED	5,840.000 LF		.		.
0850	603.0801 CONCRETE BARRIER TEMPORARY PRECAST CONTRACTOR INSTALLED	5,840.000 LF		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0860	604.0500 SLOPE PAVING CRUSHED AGGREGATE	745.000 SY	.		.	
0870	606.0200 RIPRAP MEDIUM	641.000 CY	.		.	
0880	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	2,040.000 LF	.		.	
0890	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	405.000 LF	.		.	
0900	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	720.000 LF	.		.	
0910	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	42.000 LF	.		.	
0920	608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	168.000 LF	.		.	
0930	611.0201 MANHOLES TYPE 1	7.000 EACH	.		.	
0940	611.0210 MANHOLES TYPE 3	10.000 EACH	.		.	
0950	611.0301 INLETS TYPE 1	6.000 EACH	.		.	
0960	611.0302 INLETS TYPE 2	2.000 EACH	.		.	

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0970	611.0303 INLETS TYPE 3	61.000 EACH		.		.
0980	611.0305 INLETS TYPE 8	4.000 EACH		.		.
0990	611.0530 MANHOLE COVERS TYPE J	7.000 EACH		.		.
1000	611.0606 INLET COVERS TYPE B	10.000 EACH		.		.
1010	611.0609 INLET COVERS TYPE B-A	1.000 EACH		.		.
1020	611.0624 INLET COVERS TYPE H	9.000 EACH		.		.
1030	611.0627 INLET COVERS TYPE HM	115.000 EACH		.		.
1040	611.0636 INLET COVERS TYPE HM-S	19.000 EACH		.		.
1050	611.0639 INLET COVERS TYPE H-S	4.000 EACH		.		.
1060	611.0642 INLET COVERS TYPE MS	6.000 EACH		.		.
1070	611.0654 INLET COVERS TYPE V	3.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1080	611.8110 ADJUSTING MANHOLE COVERS	17.000 EACH		.		.
1090	611.8115 ADJUSTING INLET COVERS	83.000 EACH		.		.
1100	612.0106 PIPE UNDERDRAIN 6-INCH	176.000 LF		.		.
1110	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH	100.000 LF		.		.
1120	612.0212 PIPE UNDERDRAIN UNPERFORATED 12-INCH	309.000 LF		.		.
1130	612.0700 DRAIN TILE EXPLORATION	5,600.000 LF		.		.
1140	614.0115 ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2	3.000 EACH		.		.
1150	614.0150 ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	8.000 EACH		.		.
1160	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH	391.400 LF		.		.
1170	614.0220.S STEEL THRIE BEAM BULL NOSE TERMINAL	6.000 EACH		.		.
1180	614.0230.S STEEL THRIE BEAM	400.000 LF		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1190	614.0305 STEEL PLATE BEAM GUARD CLASS A	5,700.000 LF		.		.
1200	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	20.000 EACH		.		.
1210	614.0605 MARKER POSTS RIGHT-OF-WAY	226.000 EACH		.		.
1220	614.0620.S MARKER POSTS CULVERT END FLEXIBLE	43.000 EACH		.		.
1230	614.0905 CRASH CUSHIONS TEMPORARY	2.000 EACH		.		.
1240	616.0404 FENCE CHAIN LINK SALVAGED 4-FT	22.000 LF		.		.
1250	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 3180-10-70	1.000 EACH		.		.
1260	619.1000 MOBILIZATION	1.000 EACH		.		.
1270	620.0300 CONCRETE MEDIAN SLOPED NOSE	2,082.000 SF		.		.
1280	621.0100 LANDMARK REFERENCE MONUMENTS	22.000 EACH		.		.
1290	623.0200 DUST CONTROL SURFACE TREATMENT	331,752.000 SY		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1300	624.0100 WATER	2,712.000 MGAL		.		.
1310	625.0100 TOPSOIL	14,128.000 SY		.		.
1320	625.0500 SALVAGED TOPSOIL	89,457.000 SY		.		.
1330	627.0200 MULCHING	249,731.000 SY		.		.
1340	628.1104 EROSION BALES	881.000 EACH		.		.
1350	628.1504 SILT FENCE	5,536.000 LF		.		.
1360	628.1520 SILT FENCE MAINTENANCE	5,536.000 LF		.		.
1370	628.1905 MOBILIZATIONS EROSION CONTROL	10.000 EACH		.		.
1380	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	15.000 EACH		.		.
1390	628.2004 EROSION MAT CLASS I TYPE B	49,700.000 SY		.		.
1400	628.2027 EROSION MAT CLASS II TYPE C	2,100.000 SY		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1410	628.5505 POLYETHYLENE SHEETING	2,534.000 SY		.		.
1420	628.7005 INLET PROTECTION TYPE A	54.000 EACH		.		.
1430	628.7010 INLET PROTECTION TYPE B	15.000 EACH		.		.
1440	628.7015 INLET PROTECTION TYPE C	149.000 EACH		.		.
1450	628.7504 TEMPORARY DITCH CHECKS	800.000 LF		.		.
1460	628.7550 CULVERT PIPE DITCH CHECKS	10.000 EACH		.		.
1470	628.7560.S STONE OR ROCK DITCH CHECKS	265.000 CY		.		.
1480	629.0205 FERTILIZER TYPE A	1.000 CWT		.		.
1490	629.0210 FERTILIZER TYPE B	172.000 CWT		.		.
1500	630.0120 SEEDING MIXTURE NO. 20	3,015.000 LB		.		.
1510	630.0130 SEEDING MIXTURE NO. 30	2,453.000 LB		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1520	630.0300 SEEDING BORROW PIT	370.000 LB		.		.
1530	631.1000 SOD LAWN	1,100.000 SY		.		.
1540	631.1100 SOD EROSION CONTROL	300.000 SY		.		.
1550	633.0100 DELINEATOR POSTS STEEL	291.000 EACH		.		.
1560	633.0500 DELINEATORS	291.000 EACH		.		.
1570	634.0614 POSTS WOOD 4X6-INCH X 14-FT	142.000 EACH		.		.
1580	634.0616 POSTS WOOD 4X6-INCH X 16-FT	193.000 EACH		.		.
1590	634.0618 POSTS WOOD 4X6-INCH X 18-FT	59.000 EACH		.		.
1600	634.0620 POSTS WOOD 4X6-INCH X 20-FT	19.000 EACH		.		.
1610	634.0622 POSTS WOOD 4X6-INCH X 22-FT	4.000 EACH		.		.
1620	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14-FT	3.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1630	637.0202 SIGNS REFLECTIVE TYPE II	5,071.000 SF		.		.
1640	638.2602 REMOVING SIGNS TYPE II	21.000 EACH		.		.
1650	638.3000 REMOVING SMALL SIGN SUPPORTS	21.000 EACH		.		.
1660	642.5401 FIELD OFFICE TYPE D	1.000 EACH		.		.
1670	642.6001 FIELD LABORATORY	1.000 EACH		.		.
1680	643.0200 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01.3180-10-70	427.000 DAYS		.		.
1690	643.0300 TRAFFIC CONTROL DRUMS	15,881.000 DAYS		.		.
1700	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	45,209.000 DAYS		.		.
1710	643.0453 TRAFFIC CONTROL BARRICADES PERMANENT TYPE III	28.000 EACH		.		.
1720	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	111.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1730	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	111.000 EACH		.		.
1740	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	19,402.000 DAYS		.		.
1750	643.0800 TRAFFIC CONTROL ARROW BOARDS	3,003.000 DAYS		.		.
1760	643.0900 TRAFFIC CONTROL SIGNS	42,218.000 DAYS		.		.
1770	643.0905.S TRAFFIC CONTROL COVERING SIGNS	20.000 EACH		.		.
1780	643.1050.S TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE	854.000 DAY		.		.
1790	643.3000 TRAFFIC CONTROL DETOUR SIGNS	29,455.000 DAYS		.		.
1800	645.0111 GEOTEXTILE FABRIC TYPE DF SCHEDULE A	148.000 SY		.		.
1810	645.0120 GEOTEXTILE FABRIC TYPE HR	1,019.000 SY		.		.
1820	645.0140 GEOTEXTILE FABRIC TYPE SAS	600.000 SY		.		.
1830	646.0106 PAVEMENT MARKING EPOXY 4-INCH	181,800.000 LF		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1840	646.0126 PAVEMENT MARKING EPOXY 8-INCH	11,270.000 LF		.		.
1850	646.0406 PAVEMENT MARKING SAME DAY EPOXY 4-INCH	33,400.000 LF		.		.
1860	646.0600 REMOVING PAVEMENT MARKINGS	975.000 LF		.		.
1870	646.0871.S PAVEMENT MARKING WET REFLECTIVE TAPE 4-INCH	15,200.000 LF		.		.
1880	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2	43.000 EACH		.		.
1890	647.0356 PAVEMENT MARKING WORDS EPOXY	34.000 EACH		.		.
1900	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH	563.000 LF		.		.
1910	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY	51.000 EACH		.		.
1920	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	467.000 LF		.		.
1930	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	1,840.000 LF		.		.
1940	650.4000 CONSTRUCTION STAKING STORM SEWER SYSTEM	29.000 EACH		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1950	650.4500 CONSTRUCTION STAKING SUBGRADE	8,436.000 LF		.		.
1960	650.5000 CONSTRUCTION STAKING BASE	38,799.000 LF		.		.
1970	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	32,530.000 LF		.		.
1980	650.6000 CONSTRUCTION STAKING PIPE CULVERTS	6.000 EACH		.		.
1990	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. C-51-22	LUMP	LUMP			.
2000	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 02. B-51-95	LUMP	LUMP			.
2010	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 03. B-51-101	LUMP	LUMP			.
2020	650.7500 CONSTRUCTION STAKING CONCRETE BARRIER	509.000 LF		.		.
2030	650.9900 CONSTRUCTION STAKING INITIAL LAYOUT	8,436.000 LF		.		.
2040	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	3,297.000 LF		.		.

CONTRACT: 20070710018 PROJECT(S): 3180-10-70 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2360	SPV.0165 SPECIAL 03. COVERING SIGNS TYPE II	595.000 SF		.		.
2370	SPV.0170 SPECIAL 01. TEST ROLLING	699.000 STA		.		.
2380	SPV.0180 SPECIAL 01. GEOTEXTILE FABRIC TYPE FF	1,840.000 SY		.		.
2390	SPV.0195 SPECIAL 01. WASHED STONE	18.000 TON		.		.
	SECTION 0001 TOTAL					.
	TOTAL BID					.