

AGENDA
VILLAGE OF PLEASANT PRAIRIE
PLEASANT PRAIRIE VILLAGE BOARD
PLEASANT PRAIRIE WATER UTILITY
PLEASANT PRAIRIE SEWER UTILITY
Village Hall Auditorium
9915 – 39th Avenue
Pleasant Prairie, WI
April 18, 2016
6:00 p.m.

1. Call to Order
2. Pledge of Allegiance
3. Roll Call
4. Presentation of monetary donation by Zion Solutions to the Police Department.
5. Citizen Comments (Please be advised per State Statute Section 19.84(2), information will be received from the public and there may be limited discussion on the information received. However, no action will be taken under public comments.)
6. Administrator's Report
7. New Business
 - A. Consider Loyalty Day Celebration and Parade Proclamation.
 - B. Consider Ordinance #16-10 to repeal and recreate Chapter 287 of the Municipal Code relating to Sex Offenders.
 - C. Consider a Development Agreement between the Village and Route 165, LLC regarding the construction of the second Uline Corporate Office Building.
 - D. Consider Resolution #16-14 authorizing the Second Amendment to the Settlement and Cooperation Agreement between the Village of Bristol and the Village of Pleasant Prairie.
 - E. Consider an award of contract for Bid Package No. 3 relating to the Roger Prange Equipment Storage project.
 - F. Consider a Memorandum of Agreement with the Wisconsin Department of Agriculture, Trade and Consumer Protection to conduct Weights and Measures Inspections.

Village Board Meeting
April 18, 2016

- G. Consider Ordinance #16-11 to repeal and recreate Chapter 405 of the Municipal Code relating to Design Standards and Construction Specifications. (First Reading)
 - H. Consider appointments to the various Village boards and commissions.
8. Village Board Comments
9. Adjournment

The Village Hall is handicapped accessible. If you have other special needs, please contact the Village Clerk, 9915 – 39th Avenue, Pleasant Prairie, WI (262) 694-1400

The Village of Pleasant Prairie

Office of the Village President



PROCLAMATION

WHEREAS, Loyalty Day was first celebrated as “Americanization Day” in 1921 as a way to reaffirm loyalty to the United States and to recognize the heritage of American freedom; and

WHEREAS, President Dwight D. Eisenhower proclaimed May 1, 1955 as the first observance of Loyalty Day, and on July 15, 1958, Loyalty Day was made an official recurring holiday which has been recognized with an official presidential proclamation every year since; and

WHEREAS, communities throughout the United States celebrate Loyalty Day with parades and ceremonies to promote patriotism and honor those who serve to protect our freedoms; and

WHEREAS, Pleasant Prairie Memorial Veterans of Foreign Wars (VFW) Post 7308 has been selected as host for the state-wide Wisconsin Loyalty Day Celebration in 2016; and

WHEREAS, on April 30, 2016, Pleasant Prairie Memorial VFW Post 7308 will host a state-wide Loyalty Day Celebration at Prairie Springs Park in the Village of Pleasant Prairie in collaboration with other veterans organizations, civic and community groups to promote patriotism and honor veterans, emergency services personnel, police and every American who contributes to the support and defense of this great country; and

WHEREAS, the Loyalty Day Celebration on April 30, 2016 will include a parade, judging of parade entries, an awards ceremony, refreshments and conversations with the community and all are invited; and

WHEREAS, as Americans we are united by the principles of freedom, justice and equality.

NOW, THEREFORE, I, John P. Steinbrink, President of the Village of Pleasant Prairie, do hereby proclaim Saturday, April 30, 2016 to be the day of the Loyalty Day Celebration and Parade in the Village of Pleasant Prairie and call upon all in our good State of Wisconsin and the surrounding region to join Pleasant Prairie Memorial VFW Post 7308 in recognizing the heritage of American freedom.

GIVEN, under my hand and the Seal of the Village of Pleasant Prairie, on this 18th day of April, 2016.

John P. Steinbrink, President

GODIN GERAGHTY PUNTILLO CAMILLI, SC
ATTORNEYS AT LAW

PHILLIP R. GODIN
TIMOTHY J. GERAGHTY
ROBERTA N. PUNTILLO
THOMAS A. CAMILLI, JR.
DAVID O. HUGHES

6301 GREEN BAY ROAD
KENOSHA, WISCONSIN 53142
TELEPHONE (262) 657-3500
FACSIMILE (262) 657-1690

April 13, 2016

Michael R. Pollocoff
Village Administrator
Village of Pleasant Prairie
9915 39th Avenue
Pleasant Prairie, WI 53158

VIA EMAIL

Re: Chapter 287- Sex Offenders Residency Restrictions

Dear Mike:

Attached are a blacklined version and a clean version of Chapter 287, the Village Ordinance dealing with Sex Offenders. Please review and contact me at your convenience with any questions, comments or proposed changes.

Very truly yours,

GODIN GERAGHTY PUNTILLO CAMILLI, S.C.



Timothy J. Geraghty

TJG/ep

Encs.

Cc: Chief Smetana (via email)
Tom Shircel (via email)

ORDINANCE NO. 16-10

**ORDINANCE TO REPEAL AND RECREATE
CHAPTER 287 OF THE MUNICIPAL CODE
OF THE VILLAGE OF PLEASANT PRAIRIE,
KENOSHA COUNTY, WISCONSIN
RELATING TO SEX OFFENDERS**

BE IT ORDAINED AND ESTABLISHED by the Board of Trustees of the Village of Pleasant Prairie, Kenosha County, Wisconsin that Section 287 of the Municipal Code is repealed and recreated to read as follows:

Article I. Residency and Activity Restrictions

§287-1. Purpose.

A. It is the purpose of this chapter not to impose a criminal penalty but rather to service the Village of Pleasant Prairie's compelling interest to promote, protect and improve the health, safety and welfare of the citizens of the Village of Pleasant Prairie by creating areas around locations where children regularly congregate in concentrated number wherein certain sexual offenders and sexual predators are prohibited from establishing temporary or permanent residency.

B. Repeat sexual offenders, sexual offenders who use physical violence and sexual offenders who prey on children are sexual predators who present an extreme threat to the public safety. Sexual offenders are extremely likely to use physical violence and to repeat their offenses, and most sexual offenders commit many offenses, have many more victims that are never reported, and are prosecuted for only a fraction of their crimes. This makes the cost of sexual offender victimization to society at large while incalculable, clearly exorbitant.

§ 287-2. Definitions.

In this chapter, the following words shall have the following meanings:

CHILD

A person under the age of 16 years, for purposes of this chapter.

DESIGNATED OFFENDER

Any person who is required to register under §301.45, Wis. Stats., for any sexual offense against a child, or any person who is required to register under §301.45, Wis. Stats., and who has been designated a special bulletin (SBX) sex offender pursuant to §301.46(2) and (2m), Wis. Stats.

MINOR

A person under the age of 18 years.

PERMANENT RESIDENCE

A place where the Designated Offender lodges or resides for 14 or more consecutive days.

PROHIBITED ACTIVITY

Participation in a holiday event involving Minors. Holiday events in which the Designated Offender is the parent or guardian of the Minors involved, and no non-familial Minors are present, are exempt from the definition of Prohibited Activity. A Designated Offender participates in a Prohibited Activity by taking part in the event which shall include, without limitation, distributing candy or other items to children on Halloween, wearing a Santa Clause costume on or preceding Christmas, or wearing an Easter Bunny costume on or preceding Easter.

PROHIBITED LOCATION

Any school, licensed day-care center, park, trail, playground, place of worship, athletic fields used by Minors, or any other place designated by the Village as a place where Minors are known to congregate.

SAFETY ZONE

A Safety Zone is any real property that supports or upon which there exists any facility used for or that supports a school for Minors, a public park, a park facility, a trail or any other Prohibited Location, including any sidewalks or lawn adjacent to such Prohibited Location.

TEMPORARY RESIDENCE

Either:

- A. A place where the person abides, lodges or resides for a period of 14 or more days in the aggregate during any calendar year and which is not the person’s permanent address; or
- B. A place where the person routinely abides, lodges or resides for a period of four or more consecutive or nonconsecutive days in any month and which is not the person’s Permanent Residence.

VILLAGE

The Village of Pleasant Prairie, Wisconsin

§ 287-3. Sexual Offender and Sexual Predator Residence Prohibitions; Exceptions.

A. Prohibited Location of Residence. It shall be unlawful for any Designated Offender to establish a Permanent Residence or Temporary Residence:

- 1. Within Three Thousand feet (3,000’) of a Prohibited Location.
- 2. Within Five Hundred feet (500’) of an existing Permanent Residence or Temporary Residence of another Designated Offender.

B. Original Domicile Restriction. It shall be unlawful for any Designated Offender to establish a Permanent Residence or Temporary Residence within the Village unless the Designated Offender was legally domiciled in the Village at the time of the offense resulting in the person's most recent conviction for committing the sexually violent offense and/or crime.

C. Determination of minimum distance separation. For purposes of determining the minimum distance separation under this chapter, the requirement shall be measured by following a straight line from the outer property line of the Permanent Residence or Temporary Residence of a Designated Offender to the nearest outer property line of a Prohibited Location. If any portion of a tax parcel contains a Prohibited Location, the entire tax parcel shall be considered a Prohibited Location. If any portion of a tax parcel would constitute a Prohibited Location of Residence under Section 287-3A, the entire tax parcel shall be considered a Prohibited Location of Residence.

D. Exceptions. A Designated Offender residing within a Prohibited Location of a Residence as described in § 287-3A and 3B shall not be in violation of this chapter if any of the following apply:

- (1) Subject to § 287-5A below, The Designated Offender established the Permanent Residence or Temporary Residence and reported and registered the residence pursuant to §301.45, Wis. Stats., before the effective date of this chapter, and the Designated Offender has resided in such Permanent Residence or Temporary Residence continuously since the effective date of this chapter, except for temporary absences of no more than thirty (30) consecutive days.
- (2) The Designated Offender is a Minor and is not required to register under §§ 301.45 and 301.46, Wis. Stats.
- (3) The Prohibited Location situated within 3,000 feet of the person's Permanent Residence was opened or established after the Designated Offender established the Permanent Residence and reported and registered the residence pursuant to §301.45, Wis. Stats.
- (4) The residence is also the primary residence of the Designated Offender's parents, grandparents, siblings, spouse or children, provided that such parent, grandparent, sibling, spouse or child established the residence at least two years before the Designated Offender established residence at that location.

§287-4. Sexual Offender and Sexual Predator Prohibited Activity Restrictions.

A. Safety Zone Prohibition. A Designated Offender shall not enter upon or be present upon or within a Safety Zone, except as set forth below in §287-4.B.

B. Exceptions. A Designated Offender who enters upon or who is present upon or within a Safety Zone does not commit a violation of this §287-4 if any of the following apply:

1. The property also supports a church, synagogue, mosque, temple, or other house of religious worship, subject to all of the following conditions:

- a. The Designated Offender's entrance and presence upon the property occurs only during hours of worship or other religious programs/services as posted to the public; and
 - b. The Designated Offender shall not participate in any religious education programs that include Minors.
2. The property also supports a use lawfully attended by a Designated Offender's natural or adopted children, for which a child's use reasonably requires the attendance of the Designated Offender as the child's parent upon the property, subject to the following condition:
 - a. The Designated Offender's entrance and presence upon the property occurs only during hours of activity related to the use, as posted to the public, and only as reasonably necessary in connection with such activity.
3. The property also supports a polling location in a local, state or federal election, subject to all of the following conditions:
 - a. The Designated Offender is eligible to vote;
 - b. The property is the designated polling place for the Designated Offender; and
 - c. The Designated Offender enters the polling place property, proceeds to cast a ballot with whatever usual and customary assistance is available to any member of the electorate, and vacates the property immediately after the voting.
4. The property also supports a school lawfully attended by a Designated Offender as a student under which circumstances the Designated Offender may enter upon the property supporting the school at which the Designated Offender is enrolled for such purposes, and at such times, as are reasonably required for the educational purposes of the school.
5. The property also supports a court, government office or room for public governmental meetings, subject to all of the following conditions:
 - a. The Designated Offender is on the property only to transact business at the government office or place of business, other than a public library, or to attend an official meeting of a governmental body; and
 - b. The Designated Offender leaves the property immediately upon completion of the business or meeting.

C. Prohibited Activity. It is unlawful for a Designated Offender to participate in a Prohibited Activity.

§ 287-5. Property Owners Prohibited from Renting Real Property to Certain Offenders and Sexual Predators; Notification Requirements.

A. Property Owner Restrictions. It shall be unlawful for any property owner to lease or rent any place, structure, mobile home, trailer or any part thereof, with the knowledge that it will be used as a Permanent Residence or Temporary Residence by any person prohibited from establishing a Permanent Residence or Temporary Residence therein pursuant to this chapter, if such place, structure, mobile home, trailer or any part thereof is located within a Prohibited Location of a Residence as defined in §287-3A. Notwithstanding the exception set forth in § 287-3 D(1), it shall be unlawful for a property owner to renew a leasehold interest established prior to the effective date of this chapter for a Designated Offender, whether the leasehold interest is on a month-to-month basis or for a definite term, for a period beyond six month from the effective date of this chapter. No such leasehold interest shall affect the requirement that the establishment of a new Permanent Residence or new Temporary Residence for a Designated Offender, after the effective date of this chapter, must comply with all requirements of this chapter.

B. Notice to Chief of Police. A Designated Offender, and any property owner who leases or rents any place, structure, mobile home, trailer or any part thereof, with the knowledge that it will be used as a Permanent Residence or Temporary Residence by any person who is a Designated Offender, must each notify the Village Police Chief in writing a minimum of twenty-eight (28) days prior to establishing either a Permanent Residence or Temporary Residence within the Village. In addition, any property owner who has leased or rented any place, structure, mobile home, trailer or any part thereof as a Permanent Residence or Temporary Residence by any person who is a Designated Offender, at any time during a calendar year, shall report in writing to the Village Police Chief as to the status of the leasing or renting by the Designated Offender, including without limitation, the names of all Designated Offenders who lease or rent any portion of such place, structure, mobile home, trailer or any part thereof as of December 1 of such calendar year, the remaining lease term under the current lease for each Designated Offender, and if a Designated Offender no longer leases or rents such place, structure, mobile home, trailer or any part thereof, the date said Designated Offender no longer leased or rented such place. All such information shall be provided in writing to the Village Police Chief on or before December 31 of each calendar year.

C. Notice to Property Owner. A Designated Offender shall tell any property owner from whom the Designated Offender intends to lease or rent any place, structure, mobile home, trailer or any part thereof, that the Designated Offender is a Designated Offender as defined in §287-2, prior to entering into any lease or rental arrangement.

§ 287-6. Exception for Placements under Chapter 980 of the Wisconsin Statutes.

To the extent required by Section 980.135 of the Wisconsin Statutes, and notwithstanding the foregoing provisions of this chapter, the Village of Pleasant Prairie may not enforce any portion thereof that restricts or prohibits a sex offender from residing at a certain location or that restricts or prohibits a person from providing housing to a sex offender against an individual who is released under Wisconsin Statutes Section 980.08, or against a person who provides housing to such individual, so long as the individual is subject to supervised release under Chapter 980 of the Wisconsin Statutes, the individual is residing where he or she is ordered to reside under Section

980.08 of the Wisconsin Statutes, and the individual is in compliance with all court orders issued under Chapter 980 of the Wisconsin Statutes.

§ 287-7. Severability.

Should any section, paragraph, sentence, clause or phrase of this chapter be declared unconstitutional or invalid for any reason, or be repealed, it shall not affect the validity of this Ordinance as a whole, or any part thereof, other than the part so declared to be invalid or repealed.

§ 287-8. Injunction.

If a Designated Offender or property owner violates any provision of this chapter the Village may, in addition to all other rights and remedies allowed by law or this chapter, refer the matter to an attorney chosen by the Village Administrator to bring an action in the name of the Village in circuit court to seek a temporary restraining order, temporary injunction or permanent injunction against such Designated Offender or property owner to prevent them from violating the terms of this chapter or to take any action, or prevent any action, necessary for compliance with the terms of this chapter.

§ 287-9. Penalties.

Any person, firm or entity who violates any provisions of this chapter shall, upon conviction thereof, be subject to a forfeiture not to exceed Five Hundred Dollars (\$500.00), together with the costs of prosecution, and in default of payment thereof, shall be committed to jail for a period not to exceed ninety (90) days. Each violation and each day such violation continues shall be considered a separate offense. Neither the issuance of a citation nor the imposition of a forfeiture hereunder shall preclude the Village from seeking or obtaining any and all legal and equitable remedies available by law or this chapter.

§ 287-10. Effective Date.

This chapter, as amended and restated above, shall take effect upon its passage on this _____ day of _____, 2016.

Passed and adopted this 18th day of April, 2016.

VILLAGE OF PLEASANT PRAIRIE

John P. Steinbrink, President

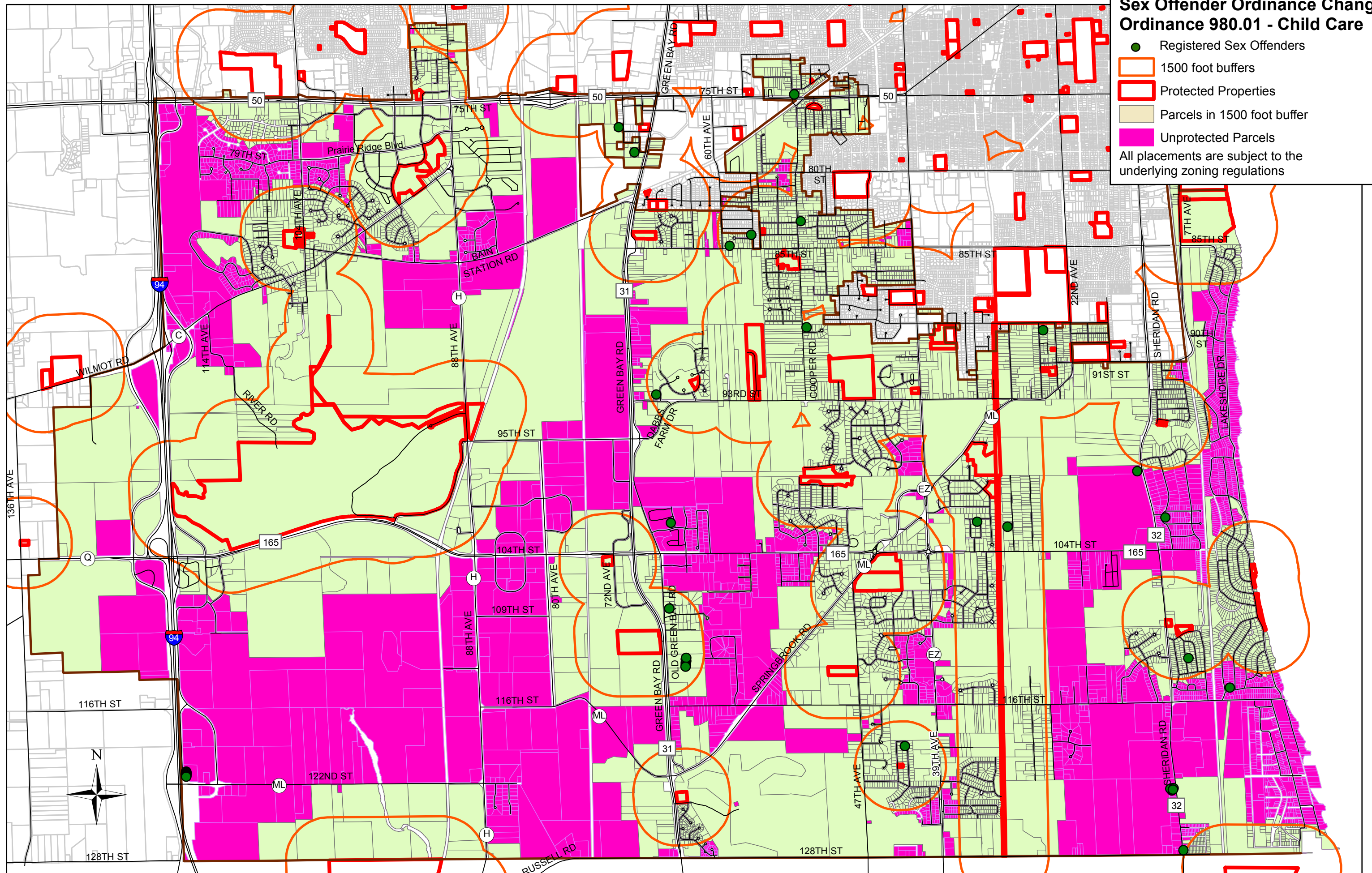
ATTEST:

Jane M. Romanowski, Clerk

Posted: _____

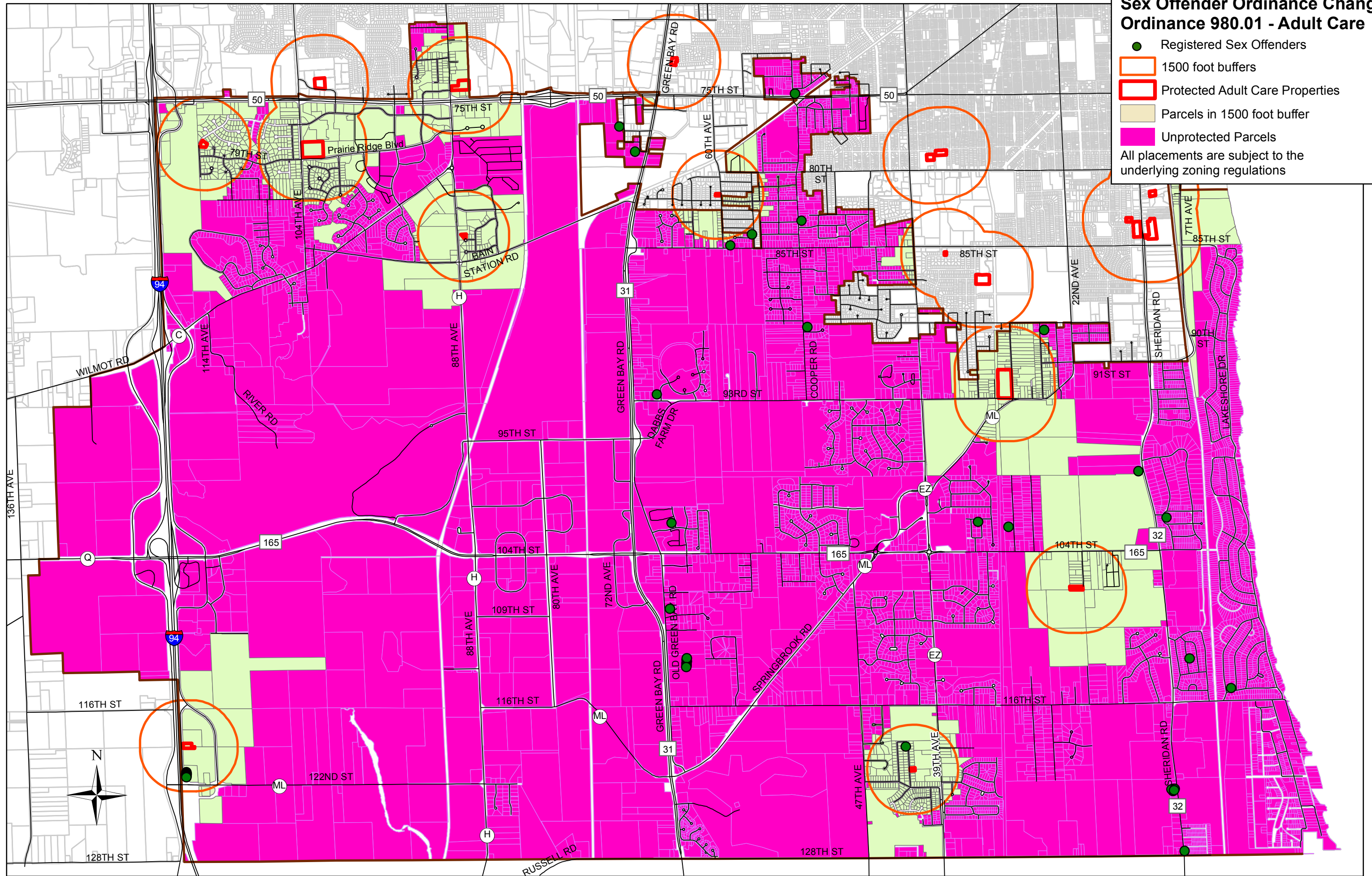
Sex Offender Ordinance Change Ordinance 980.01 - Child Care

- Registered Sex Offenders
 - 1500 foot buffers
 - Protected Properties
 - ▭ Parcels in 1500 foot buffer
 - ▭ Unprotected Parcels
- All placements are subject to the underlying zoning regulations



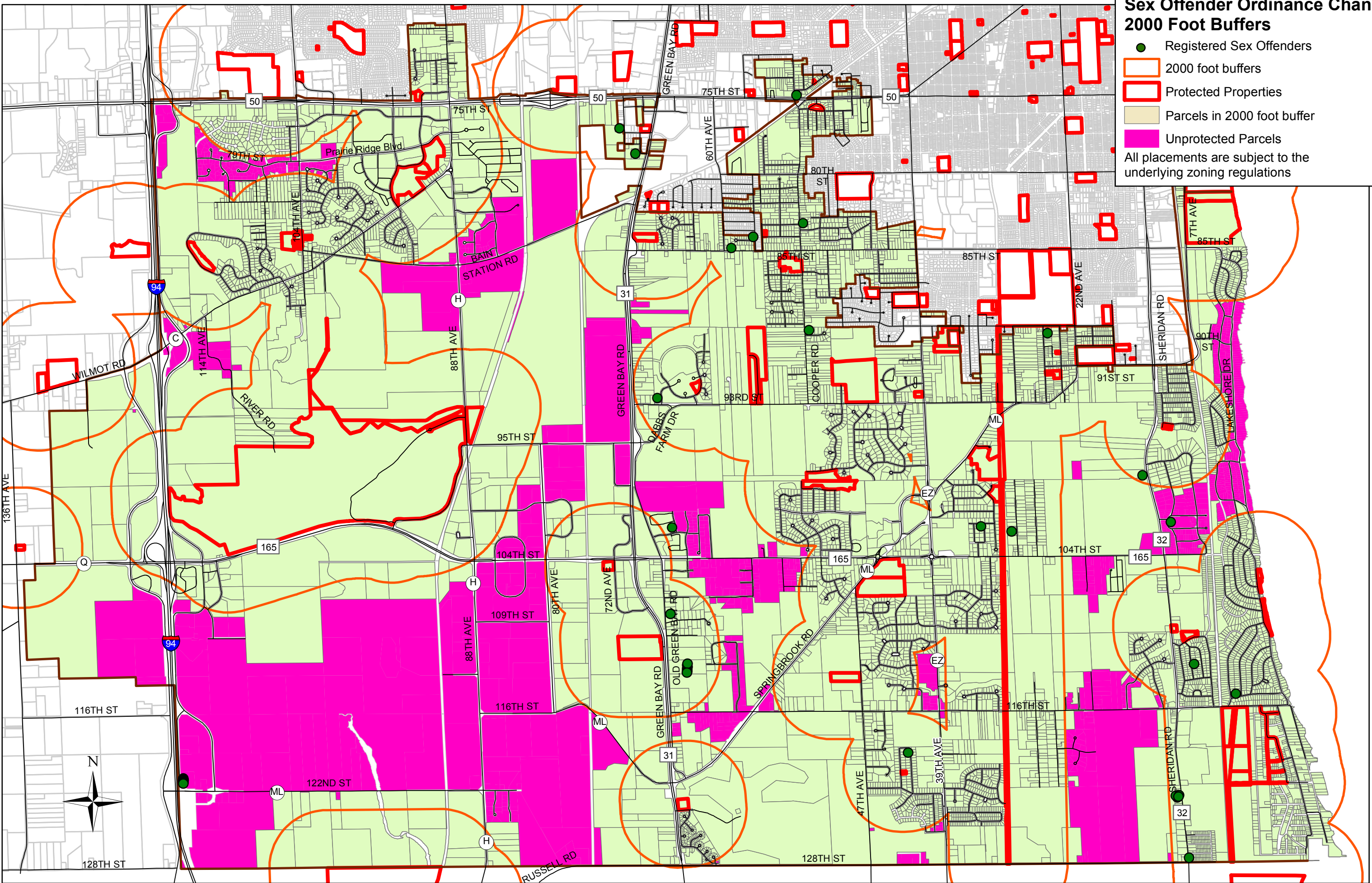
Sex Offender Ordinance Change Ordinance 980.01 - Adult Care

- Registered Sex Offenders
 - 1500 foot buffers
 - Protected Adult Care Properties
 - Parcels in 1500 foot buffer
 - Unprotected Parcels
- All placements are subject to the underlying zoning regulations








Sex Offender Ordinance Change 2000 Foot Buffers

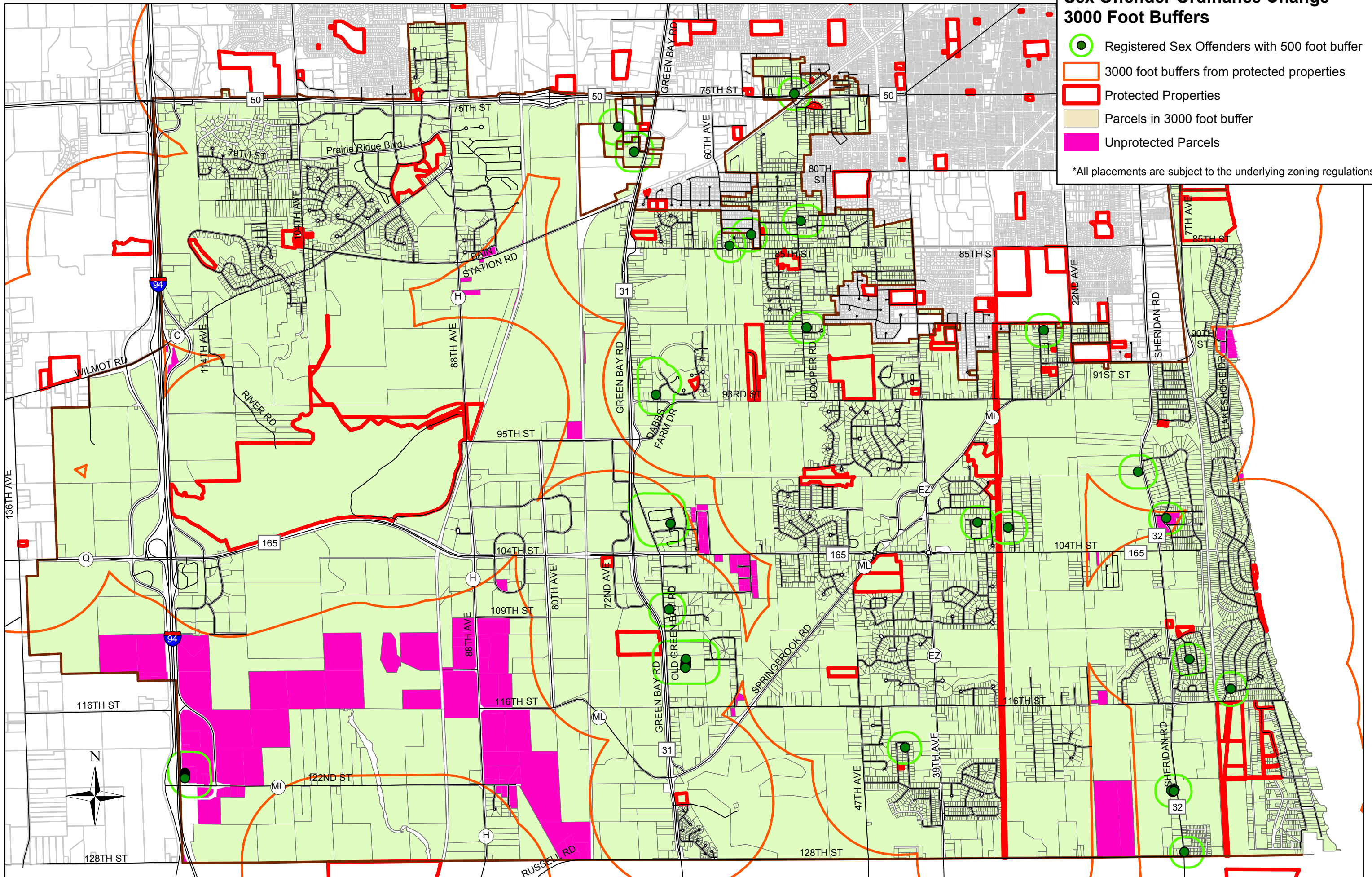
- Registered Sex Offenders
 - 2000 foot buffers
 - Protected Properties
 - Parcels in 2000 foot buffer
 - Unprotected Parcels
- All placements are subject to the underlying zoning regulations



Sex Offender Ordinance Change 3000 Foot Buffers

-  Registered Sex Offenders with 500 foot buffer
-  3000 foot buffers from protected properties
-  Protected Properties
-  Parcels in 3000 foot buffer
-  Unprotected Parcels

*All placements are subject to the underlying zoning regulations



DEVELOPMENT AGREEMENT

BETWEEN

THE VILLAGE OF PLEASANT PRAIRIE

&

ROUTE 165, LLC.

**REGARDING THE CONSTRUCTION OF
THE 2nd ULIN CORPORATE OFFICE BUILDING**

APRIL 18, 2016

LISTING OF EXHIBITS

EXHIBIT A: Legal Description of Land (*Recorded* CSM No. 2807)

EXHIBIT B: Purchase and Sale Agreement (Village CDA to Route 165 LLC)

EXHIBIT C: Intentionally Omitted

EXHIBIT D: Easements

EXHIBIT E: Construction Plans

EXHIBIT F: Tax Increment District #2 Amendment #5 Project Plan - Cost Spreadsheet

EXHIBIT G: Fiber Optic Conduit Indefensible Right to Use Agreement

DEVELOPMENT AGREEMENT
BETWEEN THE VILLAGE OF PLEASANT PRAIRIE AND
ROUTE 165, LLC REGARDING
THE CONSTRUCTION OF THE 2ND ULINE CORPORATE OFFICE BUILDING

This is a Development Agreement (hereinafter referred to as this "**Agreement**") entered into by and between Route 165, LLC, a Delaware limited liability company with an address of 12575 Uline Drive, Pleasant Prairie, Wisconsin, 53158 (hereinafter referred to as "**Uline**") and the Village of Pleasant Prairie, a Wisconsin municipal corporation with offices located at 9915 39th Avenue, Pleasant Prairie, Wisconsin 53158 (hereinafter referred to as the "**Village**"), regarding the **improvements for the construction of the 2nd Uline Corporate Office Building** (hereinafter referred to as "**H2**").

Witnesseth:

WHEREAS, Uline is the owner of land located in the Village, which land is described below

Commencing at the East 1/4 corner of said Section 25; thence South 88°50'24" West along the North line of the Southeast 14 Section 337.05 feet to the West line of 120th Avenue (West Frontage Road) and the point of beginning of the lands hereinafter described; thence South 02°12'00" East along said West line 1626.86 feet to a point; thence South 88°51'09" West 989.26 feet to a point; thence North 02°06'00" West 1626.59 feet to a point on the said North line; thence North 88°50'24" East along said North line 986.42 feet to the point of beginning. Lands contain 1,623,674 square feet or 37.2744 acres. (**Exhibit A**)

Located at 12100 Uline Place and containing 36.8848 acres of land (hereinafter referred to as the "**Land**").

WHEREAS, Uline desires to improve the Land described above with its second Corporate Office Building consisting of a three-story, approximate 292,430 square foot office building including a 75,844 square foot basement (hereinafter referred to as the "Development"). The improvements will include a utility building with pump house, cooling tower and back-up generator, located south of the office building; and

WHEREAS, the allocation of resources of the Village and the sale of the Land from the Village Community Development Authority (hereinafter referred to as the "**CDA**") to Uline via the June 25, 2014 Purchase and Sale Agreement (**Exhibit B**) are based upon Uline's commitment to complete their Development by December 31, 2020; and

WHEREAS, the upland portions of Development are zoned M-5, Production Manufacturing District (Section 420-125.2 of the Village Zoning Ordinance), which allows for manufacturing, assembly, office, and research and development uses with limited warehouse and distribution uses as permitted uses. The proposed H2 use is a permitted use in the M-5 District. The southern portions of the Development are zoned FPO, Floodplain Overlay District (Section 420-131 of the Village Zoning Ordinance) and C-1, Lowland Resource Conservancy District (Section 420-128 of the Village Zoning Ordinance) and contains shoreland jurisdictional areas (Article XV of the Village Zoning Ordinance); and

WHEREAS, the Village Comprehensive Plan designates the Development as appropriate for Production ("P") Industrial uses, which includes office uses; and

WHEREAS, on February 10, 2014, the Village Board of Trustees approved Resolution #14-05 which amended (Amendment #5) Tax Increment District No. 2 (hereinafter referred to as "TID 2 A5") which in part provides for: **1**) improvements to the West Frontage Road to an urban profile road section adjacent to the Uline Development, **2**) Storm sewer, sanitary

sewer and municipal water to the Development and to Parcel #91-4-121-254-0301, the parcel to the immediate west, and **3)** Site Work and Grading of the Development; and

WHEREAS, March 9, 2015 the Village Plan Commission conditionally approved the Preliminary Site and Operational Plans allowing for the mass grading and preliminary approval of the H2 office building and associated site improvements; and

WHEREAS, on January 25, 2016 the Village Plan Commission conditionally approved the Final Site and Operational Plans for the construction of the H2 Development (a copy of which is on file with the Village); and

WHEREAS, utility, West Frontage Road and Development site improvements [including sanitary sewer and water mains] will be required to service the Land, as well as span the utility corridor through the Land to adjoining parcels directly west and directly north of the Land; and

WHEREAS, the allocation of resources of the Village to make the necessary public improvements are subject to certain conditions, one of which is that Uline enter into a Development Agreement with the Village; and

WHEREAS, one of the purposes of this Development Agreement is to avoid the harmful effects of premature land development, which leaves land undeveloped and unproductive while at the same time making impossible the sale of property, which cannot be developed under the Village Ordinances unless and until the required public improvements provided for in this Agreement are constructed; and

WHEREAS, subsection 236.13(2) (a) of the Wisconsin Statutes provides that the Village may require Uline to make and install, or to have made and installed any required public improvements that are reasonably necessary; and

WHEREAS, subsection 236.13(2)(b) of the Wisconsin Statutes provides that, as a condition for accepting the dedication of public improvements, the Village may require that designated public improvements and facilities, constructed according to Village specifications and under Village inspection, shall have been previously provided, without cost to the Village's general fund; and

WHEREAS, subsection 236.45(2) of the Wisconsin Statutes empowers the Village to adopt ordinances governing the development of land that are more restrictive than the provisions of Chapter 236 of the Wisconsin Statutes, and the Village has done so; and

WHEREAS, the proposed Development would impose substantial burdens upon the Village's general fund, which can appropriately be mitigated by this Agreement; and

NOW, THEREFORE, in consideration of the mutual provisions of this Agreement pertaining to the public improvements and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Uline and the Village hereby agree that the following public improvements shall be provided by the Village Tax TID 2 A5 as follows:

- 1) Required Public Sanitary Sewer System Improvements.
 - a) Uline shall, at its sole expense, risk and liability, design, locate, provide, construct, and install all required public sanitary sewer system improvements in the Development, including a new 10-inch sanitary sewer extension to provide service to the now-vacant land to the west of the Property, all of which are depicted and described in the Construction Plans (**Exhibit E**) (hereinafter collectively referred to

as the "**Required Public Sanitary Sewer System Improvements**") in a workmanlike manner and in accordance with the Construction Plans and the applicable provisions of the Land Division Ordinance.

- b) To accommodate the Required Public Sanitary Sewer System Improvements, Uline shall dedicate to the Village a 60' Public Sanitary Sewer Main, Public Water Main, Access and Maintenance Easement (hereinafter referred to as "**Easement 1**") that will extend through the Land from the west Frontage Road westward to the Uline west property line, to the currently undeveloped and adjacent Ries Partnership LP property ("Ries"), Tax Parcel Number 91-4-121-254-0301. The utility extension to Ries' property line is to facilitate sanitary sewer and water service (as referenced below) to Ries without future need for excavation on the Uline property. Uline shall construct and install the improvements at its cost and shall convey, transfer and deliver to the Village the permanent Easement 1 including the perpetual right to enter upon the Easement 1 at any time that the Village may see fit, to construct, maintain, use and repair underground pipelines and mains, and other underground utility lines and equipment, together with the right to excavate and refill ditches and/or trenches for the location of said pipes and mains or utility lines and equipment, and the further right to remove trees, bushes, underground and other obstructions interfering with the location, construction, use and maintenance of said underground pipelines, mains and utility lines (**Exhibit D - depicted on Exhibit A**).
 - c) The Village shall televise the Required Public Sanitary Sewer System Improvements and shall conduct such cleaning of the sanitary sewer mains (as may be necessary) that are part of the Required Public Sanitary Sewer System Improvements as may be necessary to facilitate such televising, and shall be done both at the time of the Village's final inspection and at the time that the Uline's one year warranty of such improvements is set to expire.
 - d) Uline shall complete the construction and installation of all Required Public Sewer System Improvements within 18 months after the effective date of this Agreement, subject to an extension of time equal to any delays, not the fault of Uline, and caused by the Village or any other government agency having jurisdiction over any portion of the Land or any aspect of the Development.
 - e) The Required Public Sewer System Improvements shall be commenced within 180 days of the execution of this Agreement.
 - f) Upon the testing, sampling and acceptance by the Village of the dedicated Required Public Sewer System Improvements, Uline shall promptly take such actions as are necessary to connect and otherwise render such improvements usable.
 - g) Uline's contractor is responsible for the costs associated with the protection, repair, and replacement, if necessary, of the existing Village sewer system improvements during construction activities on the Development site.
- 2) Required Public Water Improvements.
- a) Uline shall, at its sole expense, risk and liability, design, locate, provide, construct, and install all required public water system improvements in the Development, including new 12-inch water main extensions to provide service to the now-vacant lands to the west and north of the Property, all of which are depicted and described in the Construction Plans (**Exhibit E**) (hereinafter collectively referred to as the "**Required Public Water System Improvements**") in a workmanlike manner and in accordance with the Construction Plans and the applicable provisions of the Land

Division Ordinance. Uline shall clean and conduct a pressure and water quality test on the Required Public Water System Improvements upon completion.

- b) To accommodate the Required Public Water System Improvements, in addition to Easement 1, Uline shall dedicate to the Village a 20' Public Water Main, Access and Maintenance Easement (hereinafter referred to as "**Easement 2**") that is synonymous with Easement 1 and will additionally extend northwards through the Land from Easement 1 to the Uline north property line to the currently undeveloped and adjacent Jockey International Inc. property ("Jockey"), Tax Parcel Number 91-4-121-251-0300. The utility extension to Jockey is to facilitate water service to Jockey, and minimize a future need for excavation on the Uline property. Uline shall construct and install the improvements at its cost and shall convey, transfer and deliver to the Village the permanent Easement 2 including the perpetual right to enter upon the Easement 2 at any time that the Village may see fit, to construct, maintain, use and repair underground pipelines and mains, and other underground utility lines and equipment, together with the right to excavate and refill ditches and/or trenches for the location of said pipes and mains or utility lines and equipment, and the further right to remove trees, bushes, underground and other obstructions interfering with the location, construction, use and maintenance of said underground pipelines, mains and utility lines (**Exhibit D - depicted on Exhibit A**).
 - c) Uline shall complete the construction and installation of all Required Public Water Improvements within 18 months after the effective date of this Agreement, subject to an extension of time equal to any delays, not the fault of Uline, and caused by the Village or any other government agency having jurisdiction over any portion of the Land or any aspect of the Development.
 - d) The Required Public Water Improvements shall be commenced within 180 days of the execution of this Agreement.
 - e) Upon the testing, sampling and acceptance by the Village of the dedicated Required Public Water Improvements, Uline shall promptly take such actions as are necessary to connect and otherwise render such improvements usable.
 - f) Uline's contractor is responsible for the costs associated with the protection, repair, and replacement, if necessary, of the existing Village water system improvements during construction activities on the site.
- 3) Storm Water Drainage.
- a) Uline shall, at its sole expense, risk and liability, undertake the design, permitting, construction, maintenance, and any and all related and/or ancillary requirements necessary for four (4) new Dedicated Storm Water Drainage, Access and Maintenance Easements (hereinafter referred to as "**Easements 3, 4, 5 & 6**") that will be located on the Land.
 - b) Uline shall construct and install the improvements at its cost and shall convey, transfer and deliver to the Village the permanent Easements 3, 4, 5 & 6 including the perpetual right to enter upon the Easements 3, 4, 5 & 6 at any time that the Village may see fit, to construct, maintain, use and repair underground pipelines and mains, and other underground utility lines and equipment, together with the right to excavate and refill ditches and/or trenches for the location of said pipes and mains or utility lines and equipment, and the further right to remove trees, bushes, underground and other obstructions interfering with the location, construction, use and maintenance of said underground pipelines, mains and utility lines (**Exhibit D - depicted on Exhibit A**).

- c) The Village shall televise the Required Storm Sewer System Improvements and shall conduct such cleaning of the storm sewer mains (as may be necessary) that are part of the Required Public Sanitary Sewer System Improvements as may be necessary to facilitate such televising, and shall be done both at the time of the Village's final inspection and at the time that the Uline's one year warranty of such improvements is set to expire.
- 4) Required Public Roadway Improvements – Construction of Uline Place & Reconstruction of a segment of 120th Avenue (West Frontage Road).
- a) Uline, in conjunction with Wisconsin Department of Transportation (hereinafter referred to as "**WIDOT**") shall, at Uline's sole expense, risk and liability, undertake the design, permitting, acquisition of easements, construction, maintenance and procurement of maintenance agreements and all related and/or ancillary requirements necessary for the design and reconstruction of the Development's frontage along 120th Avenue (West Frontage Road) from a rural profile roadway to an urban profile roadway, for any required by-pass lanes/deceleration lanes/acceleration lanes leading into and out of the Development (hereinafter collectively the "**Roadway Improvements**") and for the extension of public utilities (i.e. Municipal Sanitary Sewer, Water and Storm Sewer (hereinafter collectively the "**Utility Improvements**"). Said Roadway and Utility Improvements shall be completed in a workmanlike manner and in accordance with the Construction Plans and the applicable provisions of the Land Division Ordinance.
 - b) Uline will fund the Roadway Improvements and Utility Improvements on the West Frontage Road and the Village shall reimburse Uline for any improvement expenses that WIDOT does not fund. All of the Village's obligations related to roadway reconstruction and related Improvements shall be completed no later than December 31, 2017. The Village shall not be responsible or liable for the maintenance of the Roadway Improvements. Under no circumstance shall the Village or any of its affiliates, subsidiaries, employees, officers, directors, agents or consultants, have any involvement in, or risk, liability or expense related to these Roadway Improvements. After completion and acceptance, the Village shall be responsible and liable for the maintenance of the Utility Improvements. Under no circumstance shall the Roadway Improvements and Utility Improvements in any way affect Uline's ability to obtain permits or otherwise move forward with the Development, including but not limited to, there shall be no delays or effects related to Uline's construction, operations and/or occupancy.
 - c) Uline will use its best efforts to ensure its contractors and Village inspectors have access to the Development site throughout the duration of the West Frontage Road Roadway Improvements and Utility Improvements work.
 - d) Uline shall cause its contractor to complete the construction and installation of all Roadway Improvements and Utility Improvements within 18 months after the effective date of this Agreement.
 - e) The Roadway Improvements and Utility Improvements shall be commenced within 365 days of the execution of this Agreement.
 - f) No special assessments shall be levied against Uline for the Roadway Improvements and Utility Improvements.
 - g) Uline (or its contractor) shall be responsible, at Uline's sole expense, risk, and liability, to undertake the design, permitting, construction and maintenance, as well as all related and/or ancillary requirements necessary for the design, permitting,

construction and maintenance, of Uline Place.

- h) The Village agrees to facilitate the inclusion of two (2) fiber optic conduits, intended to link the Uline building located at 12575 Uline Drive, Pleasant Prairie, Wisconsin ("H1") and the H2 building. The fiber optic conduits are to be located within the West Frontage Road right-of-way, which is under the jurisdiction of the WIDOT (**Exhibit G**).
 - i. Pursuant to the WIDOT, the Village will own the fiber optic conduits and corresponding infrastructure.
 - ii. Uline, at its sole expense, shall prepare the construction plans, specifications and maintenance plan for the fiber optic conduits.
 - iii. Uline shall install the fiber optic conduits.
 - iv. Uline, at its sole expense, agrees to pay for all future maintenance, upgrades, adjustments, etc. associated with the fiber optic conduits.
 - v. Uline shall cause its contractor to complete the construction and installation of all fiber optic conduit improvements within 18 months after the effective date of this Agreement.
 - vi. The fiber optic conduit improvements shall be commenced within 365 days of the execution of this Agreement.
- 4) Right-of-Way and Easement Restoration for 120th Avenue (West Frontage Road).
 - a) All of the grading and landscaping in the Easement and public right-of-way described in this subparagraph will hereinafter be collectively referred to as the "**Required Right-of-Way and Easement Restoration**". All disturbed areas outside of the roadway pavement areas of 120th Avenue (West Frontage Road), including Uline Place, and within the Easements 1, 2, 3, 4, 5, & 6 areas in the Development, shall be suitably prepared and seeded with appropriate grass seed by Uline, at its sole expense, to the Village's reasonable satisfaction and in accordance with the Construction Plans and Specifications (**Exhibit E**), and the applicable provisions of the Village Land Division Ordinance, as soon as is physically practical after the disturbance of the ground surface. The Village Inspectors may require the disturbed areas to be hydro-seeded if necessary to control erosion prior to the winter season.
 - b) In the event that the initial seeding fails to produce a good cover of grass, Uline shall promptly take such steps as are necessary, which may include reseeded, hydro-seeding, sodding, etc., in order to produce a good cover of grass no later than May 1 of the following year.
- 5) Site Grading.
 - a) Uline shall design, perform and complete all site grading improvements for the Development, which are depicted and described in the Construction Plans (**Exhibit E**) in a workmanlike manner and in accordance with the Construction Plans and the applicable provisions of the Land Division Ordinance.
 - b) Uline shall complete the Site Grading improvements within 24 months after the effective date of this Agreement.
 - c) The Site Grading improvements shall be commenced within 180 days of the execution of this Agreement.
 - d) Uline's contractor is responsible for the costs associated with the Site Grading improvements during construction activities on the site.

6) Contractors and Contracts.

a) Qualified Contractors.

Uline shall engage, for all work on the public improvements (Required Public Sewer System Improvements, Required Public Water Improvements and Public Roadway Improvements), only contractors and subcontractors who are qualified to perform the work and who have been pre-qualified in accordance with Village ordinance requirements. It is understood by Uline that subcontractors constructing or completing public improvements are also subject to Village pre-qualification requirements. Pre-qualification is an annual requirement with the Village. If the Village does not approve a contractor within one (1) week of submission, the deadlines in Paragraphs 1)d), 2)d), 3)c), 4)b) and 5)c) above shall be extended accordingly.

b) Approval of Contracts.

All signed contracts relating to the public improvements (Required Public Sewer System Improvements, Required Public Water Improvements and Public Roadway Improvements) shall be made subject to review of the Village Administrator, the consent of which shall not be unreasonably withheld. All such contracts and all amendments thereof shall be approved by the Village Administrator prior to any labor, materials or services being supplied under such contracts or amendments with respect to the Required Public Sewer System Improvements, Required Public Water Improvements and Public Roadway Improvements provided for in this Agreement. If the Village does not approve a public improvements contract within one (1) week of submission, the deadlines in Paragraphs 1)d), 2)d), 3)c), 4)b) and 5)c) above shall be extended accordingly.

All such contracts shall include appropriate measures such as to prevent erosion, to protect the adjacent wetlands, to keep the construction site free of litter and debris, and to keep roadways free of mud and debris.

7) Site Improvements. As provided for in the TID 2 A5 Project Plan (**Exhibit F**), TID 2 A5 will reimburse Route 165, LLC for a total of \$1,914,000 (for site improvements identified on the Construction Plans) (**Exhibit E**).

• Roadway Improvements (W. Frontage Rd.)	\$108,500
• Public Sanitary Sewer System Improvements:	\$195,000
• Public Water Improvements:	\$195,000
• Public Roadway Improvements:	\$827,500
• Storm Sewer Improvements:	\$188,000
• Site Work & Grading:	<u>\$400,000</u>
TOTAL	\$1,914,000

8) Request for Grant Awards and Project Expense Reimbursement

a) Grant Awards. The Village shall provide a Grant for the construction of site improvements not to exceed \$400,000.00. The Grant shall be provided to Uline within 31 days of the final occupancy permit.

b) Project Expense Reimbursement. Partial Payments for the remaining balance under Paragraph 7 will be made to Uline for Project Expense Reimbursements no later than 31 days after the submission of the following items:

i. A pay request from Uline's project manager detailing the contract amount to

date, the amount of work completed, and the total amount due for this payment.

- ii. Lien Waivers shall be provided by the contractor for all work performed up to the date including the amount requested for payment.
 - iii. An affidavit from an authorized representative from Uline attesting to the accuracy of the pay request.
- 9) Traffic Study.

The previously approved Traffic Impact Analysis (TIA), prepared by Keonig, Lindgren, O'Hara, Aboona Inc., ("KLOA"), dated February 25, 2010, took into account the Land and Development and therefore, will not need to be amended.

10) Overhead Electric Power Lines & Natural Gas Main.

Pursuant to the TID 2 A5 Project Plan, the extension and burying of overhead electric transmission power lines and an underground natural gas line within the 120th Avenue (West Frontage Road) right-of-way shall be at the sole expense of the Village.

11) Variances.

Based on **Exhibits C & D**, the Village does not anticipate the need for any variances. If the need for any variance(s) arises, the Village agrees to reasonably work with Uline to accommodate the variance condition, including, but not limited to, through a Planned Unit Development ("PUD") process, approval of which shall not be unreasonably withheld.

12) Special Assessments.

No special assessments shall be levied against Uline for the construction of the Development or Site Improvements.

13) Emergency Services.

The Village agrees to continue to provide Fire & Rescue and Police services to the entire Uline Development.

14) 120th Avenue (West Frontage Road) Access.

The Village will support a request for the access modifications along 120th Avenue (West Frontage Road) including curb cuts and the removal of trees (if necessary).

16) Developer's Commitment to Construct.

- a) Uline agrees that the Development will be constructed pursuant to all Village-approved Site and Operational Plans and related documents.
- b) Uline agrees and commits to the Village that it shall continue to comply with the June 25, 2014 Purchase and Sale Agreement between Route 165 LLC (Uline) and the Village CDA (**refer to Exhibit B**).
- c) Uline agrees to reimburse the Village for a pro-rata share of expenditures made by the TID 2 A5 Project Plan or Uline's improvements if Uline fails to construct all or a

portion of the Development as approved in the (Preliminary) Site and Operational Plan approved by the Village for H2. The pro-rata share shall be based upon the amount of the Development's completed square footage compared to the overall square footage contained in the Final Site and Operational Plan.

17) Dedications of Public Easements.

- a) Uline shall promptly and unconditionally dedicate, give, grant and convey to the Village all Required Public Easements, upon completion of the approved design by Uline.
- b) The form of the documents by which Uline dedicates Public Easements to the Village pursuant to this Agreement shall be subject to the approval of the Village Attorney.

18) West Frontage Road (120th Avenue).

Refer to Construction Plans (**Exhibit E**) consisting of: 1) Plans with the latest date of 3/25/16 (Bid Package #4), and 2) Plans with the latest date of 3/16/16 [H2 Offsite Roadway (WIDOT West Frontage Road)].

19) Miscellaneous Fees.

Uline shall pay the required Erosion Control Permit fee including the required Street Sweeping Cash Deposit as part of the Erosion Control Permit.

20) Erosion Control.

Uline's contractor shall take all actions and shall utilize all techniques and mechanisms necessary to implement the Erosion Control Plan as set forth as a part of the Construction Plans, in order to prevent sediment from being deposited on adjacent properties or on any public street or into the adjacent wetland and to prevent sediment from being washed into downstream drainage facilities, during any phase of grading or construction relating to the Required Public Improvements. At a minimum, Uline shall comply with the approved Erosion Control Plan and applicable provisions of the Village's Erosion Control and Construction Site Maintenance Ordinance.

21) Cleanup/Restricted Access.

Uline's contractor shall keep the Development free from litter and debris during all phases of excavation and construction with respect to the Required Public Improvements. Tree trunks or other organic matter shall not be backfilled on the Property. Mud tracking caused by Uline's contractor shall be cleaned as needed by the Uline's contractor, at Uline's expense.

22) Adjacent Properties.

Uline shall take whatever precautions are necessary to ensure that any properties located adjacent to the Development are not disturbed in any material way during any stage of the grading, construction or restoration provided for in this Agreement, except as provided for in **Easement 1** and **Easement 2** as noted above. Any required erosion control silt fence shall be maintained by the contractor throughout construction and until the area disturbed is vegetative stable.

23) Village Maintenance.

Uline shall maintain and/or repair any public improvements referred to in this Agreement

until after such time as the Village Board has adopted a resolution specifically accepting the dedication of such improvements.

24) Right of Entry.

Village officials and their designees shall have the right to enter upon the Land and Development at all reasonable times, without notice, to inspect the status, progress and quality of the work on the Required Public Sewer System Improvements, Required Public Water Improvements and Public Roadway Improvements and any related materials, goods or equipment.

25) Permits.

No permits shall be issued for connection to public utility mains until such time as the Required Public Sewer System Improvements and Required Public Water Improvements are completed, inspected, tested, and accepted by the Village.

26) Stop-Work Orders.

The contractor(s) shall promptly comply with any stop-work orders issued pursuant to applicable provisions of the Village Land Division and Development Control Ordinance because the design, location, materials, workmanship or manner of performance is not in accordance with the provisions of this Agreement or the Land Division and Development Control Ordinance.

27) Remedies of the Village.

In the event that Uline fails or refuses to comply with any of its obligations under this Agreement, the Village may pursue, subject to this Paragraph 19 of this Agreement, any and all remedies that may be available to it at law or in equity.

- a) Notwithstanding any other language in this Agreement to the contrary, if the Village believes in good faith that commencement of a legal action, or the performance of its own work with respect to curing a perceived breach prior to the commencement or completion of Uline's curative action is urgently required to protect the public health or safety, the Village may proceed to do so.
- b) Neither a party's willingness to undertake curative activity nor the fact that a party has undertaken curative activity shall be construed as or used as evidence of a breach of this Agreement.
- c) If any party's ability to perform its obligations under this Agreement is impaired by war, labor stoppage, flood or other act of God, or other cause beyond its reasonable control, then such performance will be excused for the period of such impairment.

28) Remedies of the Developer.

In the event that the Village fails or refuses to comply with any of its obligations under this Agreement, Uline may pursue, subject to this Paragraph 20 of this Agreement, and all remedies that may be available to it at law or in equity.

- a) Notwithstanding any other language in this Agreement to the contrary, if Uline believes in good faith that commencement of a legal action, or the performance of its own work with respect to curing a perceived breach prior to the commencement or completion of the Village's curative action is urgently required to protect the public health or safety, Uline may proceed to do so.

- b) Neither a party's willingness to undertake curative activity nor the fact that a party has undertaken curative activity shall be construed as or used as evidence of a breach of this Agreement.
- c) If any party's ability to perform its obligations under this Agreement is impaired by war, labor stoppage, flood or other act of God, or other cause beyond its reasonable control, then such performance will be excused for the period of such impairment.

29) Notice of Breach and Curative Activity.

- a) In the event that one of the parties to this Agreement believes that the other party has breached its obligations under this Agreement, such party shall promptly notify the other party in writing of the specific nature of the perceived breach. (See Paragraph 22 below, regarding notices, and particularly how notices must be mailed or delivered.) If the Village believes that a perceived breach poses an imminent threat to the public health or safety, its notice of breach shall so state.
- b) A notice of breach shall not be a condition precedent to the issuance by the Village of a stop-work order pursuant to applicable provisions of the Village Land Division and Development Control Ordinance, or to any legal action to enforce the Village Land Division and Development Control Ordinance or any other applicable ordinance.
- c) The party who has received a notice of breach shall have 20 days from the effective date of the notice of breach to cure the breach; provided, however, that curative activity shall be completed as soon as practical, and further provided that if curative activity is timely commenced and thereafter continuously and diligently pursued, the curing party shall have a reasonable period of time under the circumstances to complete its curative activity.
- d) Curative activity undertaken by a party to this Agreement, even if such curative activity is timely commenced and diligently and continuously pursued to completion, shall not necessarily preclude liability with respect to any breach. Such curative activity shall, however, subject to Paragraph 30 below, preclude the commencement of any legal action for breach of this Agreement until after the curative activity has been completed and the complaining party has had an opportunity to assess the effect of such curative activity.
- e) Whenever a perceived breach of this Agreement is believed by either party to pose an imminent threat to public health or safety, the parties shall immediately confer in good faith as to how such threat can be most effectively and expeditiously eliminated.
- f) Notwithstanding any other language in this Agreement to the contrary, if the Village believes in good faith that commencement of a legal action, or the performance of its own work with respect to curing a perceived breach prior to the commencement or completion of Uline's curative action is urgently required to protect the public health or safety, the Village may proceed to do so.
- g) Neither a party's willingness to undertake curative activity nor the fact that a party has undertaken curative activity shall be construed as or used as evidence of a breach of this Agreement.
- h) If any party's ability to perform its obligations under this Agreement is impaired by war, labor stoppage, flood or other act of God, or other cause beyond its reasonable control, then such performance will be excused for the period of such impairment.

30) Notices.

- a) All notices given in connection with this Agreement shall be in writing, shall specifically refer to this Agreement by title and date, and shall be addressed to the receiving party and either mailed by Certified Mail-Return Receipt Requested, or delivered during normal business hours at the address stated in the introductory paragraph of this Agreement. Any notice addressed to the Village shall be addressed to the attention of the Village Administrator.
- b) Either party shall give notice to the other, in accordance with this paragraph, of a change-of-address. After any such change-of-address notice is given and received, all notices given in connection with this Agreement shall thereafter be mailed or delivered to the new address. Any such change-of-address notice to which notices may be sent shall state on its face, in capital letters, **"THIS LETTER AMENDS THE NOTICE PROVISION OF PARAGRAPH 30 OF THE DEVELOPMENT AGREEMENT (H2) BETWEEN THE VILLAGE OF PLEASANT PRAIRIE AND ROUTE 165, LLC (ULINE) THIS LETTER SHOULD BE FILED WITH SUCH AGREEMENT"**.
- c) Any notice given in accordance with this paragraph shall be effective upon delivery, if delivered during normal business hours, or upon commencement of the next business day if delivered after normal business hours, or, if mailed, three (3) days after the date of postmark.
- d) Prior to any action related to the design, financing, or construction of improvements described within this Agreement, Uline shall provide the Village with an official Notice to Proceed.

31) No Third-Party Beneficiaries.

This Agreement is not intended to benefit or to be enforceable by any person other than the Village, the Developer, and their respective successors and assigns, which shall not include, for purposes of this paragraph, any person who has not assumed all of the benefits and obligations of this Agreement.

32) Applicability of Land Division and Development Control Ordinance.

The provisions of the Village Land Division and Development Control Ordinance are applicable to the subject matter of this Agreement, whether or not such provisions are referred to expressly herein. However, in the event of any inconsistency between the provisions of the Village Land Division and Development Control Ordinance and the provisions of this Agreement, this Agreement shall control.

33) No Rule of Construction Against Drafter.

The language used in this Agreement shall be deemed to be the language chosen by the parties to express their mutual intent, and no rule of construction shall be applied against either party as the drafter of this Agreement.

34) Amendment of Agreement.

The Village and Uline may, by mutual agreement in writing, and after approval of the Village Board, amend this Agreement at any time. The Village Board shall not, however, approve an amendment without having first considered the written recommendations of the Village staff on the proposed amendment.

35) Amendment of Ordinance.

In the event that the Village Land Division and Development Control Ordinance is amended or recreated after this Agreement is entered into, and before the Required Public Improvements have been completed, then any such amendments shall apply to this Agreement; provided, however, that if such amendments impose greater burdens or more stringent restrictions upon Uline, such amendments shall not apply.

36) Severability.

In the event that any part of this Agreement is determined to be invalid by a Court of Competent Jurisdiction, such part shall be severed from the Agreement, and the balance of this Agreement shall survive.

37) Binding Agreement: Assignment.

This Agreement shall be binding upon the parties and their successors, assigns, heirs and personal representatives. Any assignment of this Agreement by Uline or by any successor or assign of Uline shall be subject to prior approval of the Village Board, but such approval shall not be unreasonably withheld.

38) No Threat to Public Health or Safety.

Notwithstanding any language or this Agreement to the contrary, Uline shall neither do not permit any other person to do anything in connection with the performance of Uline's obligations under this Agreement, which poses a threat to the public health or safety.

39) Good Faith and Fair Dealing.

The parties shall deal with one another fairly and in good faith.

40) Entire Agreement.

This Agreement is the entire agreement of the parties in relation to the subject matter contained herein. All prior agreements, commitments, promises, offers, representations and statements made by or on behalf of the parties with respect to the subject matter of this Agreement are hereby terminated and shall have no further effect.

41) Governing Law.

The law of the State of Wisconsin shall govern all issues relating to this Agreement.

42) Effective Date. This Agreement shall be effective as of the date signed by the Village.

SIGNATURE PAGE TO FOLLOW

IN WITNESS WHEREOF, Uline and the Village have caused this Agreement to be signed and dated as of this ____ day of April, 2016.

ROUTE 165, LLC (Uline)

Phillip D. Hunt
Executive Vice President

STATE OF WISCONSIN)
)SS:
KENOSHA COUNTY)

This Development Agreement was acknowledged before me this ____ day of _____, 2016 by **Phillip D. Hunt, Executive Vice President**, Route 165, LLC. (Uline)

Print Name: _____
Notary Public, Kenosha County, State of WI
My Commission expires: _____

SIGNATURE PAGE TO FOLLOW

VILLAGE OF PLEASANT PRAIRIE

John P. Steinbrink
Village President

ATTEST:

Michael R. Pollocoff
Village Administrator

STATE OF WISCONSIN)
)SS:
KENOSHA COUNTY)

This Development Agreement was acknowledged before me this ____ day of _____, 2016 by **John P. Steinbrink, Village President** and **Michael R. Pollocoff, Village Administrator** of the Village of Pleasant Prairie.

Print Name: _____
Notary Public, Kenosha County, State of WI
My Commission expires: _____

This Agreement drafted by:
Village of Pleasant Prairie
9915 39th Avenue
Pleasant Prairie, WI 53158

EXHIBIT A
Legal Description of Land (*Recorded* CSM)

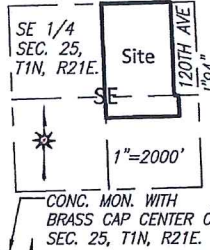
See Attached

Doc #1767699
re coded on
3/14/16

CERTIFIED SURVEY MAP NO. 2807 Doc 641614
Doc 508304

All of Lots 1 and 2 of Certified Survey Map No. 1281 and all of Parcel A and B of Certified Survey Map No. 603 and lands in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin.

VICINITY MAP



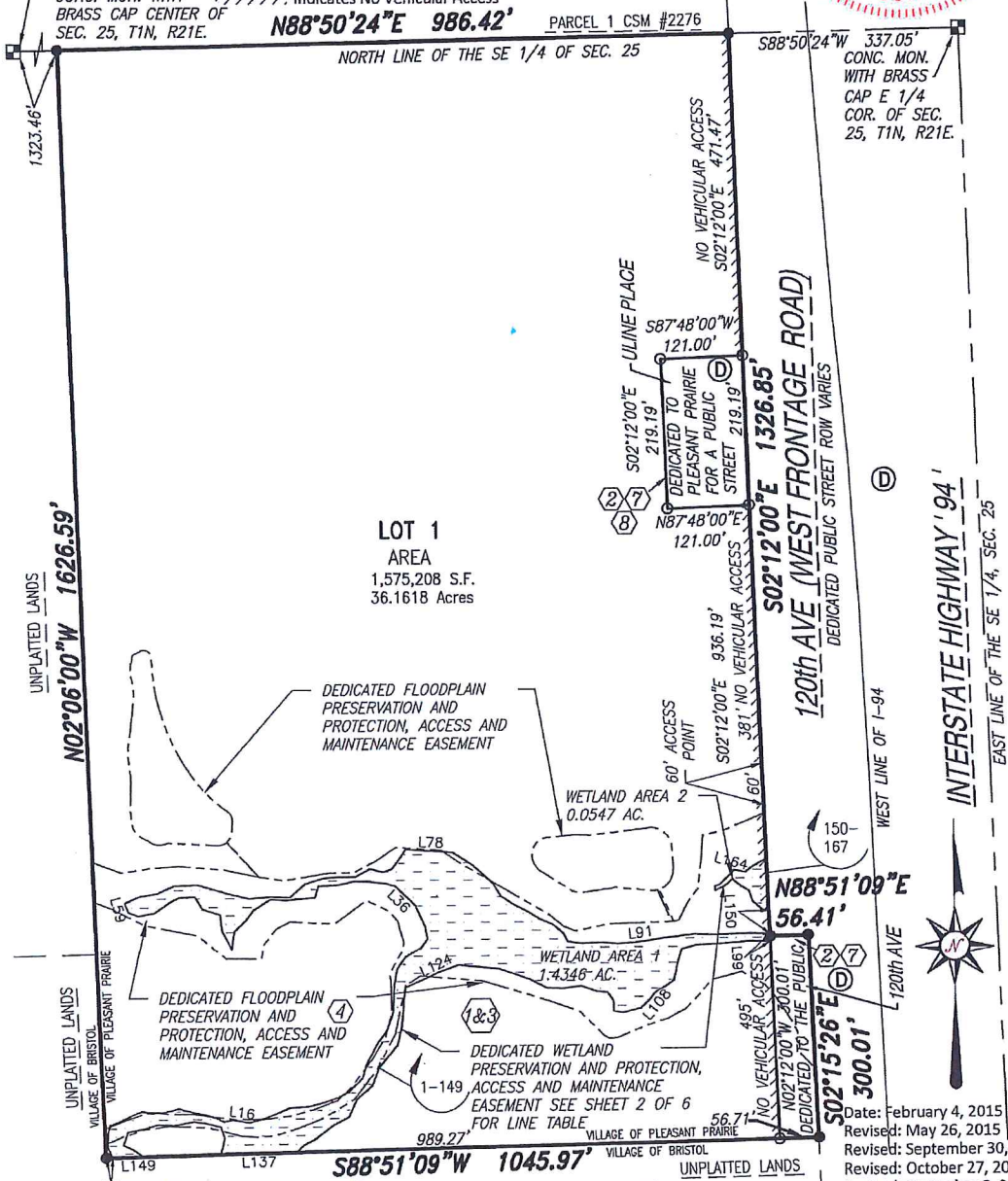
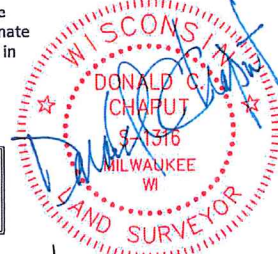
Owner/Subdivider:
Route 165 LLC
12575 Uline Dr.
Pleasant Prairie, WI 53158

Bearings are referenced to the Wisconsin State Plane Coordinate System (South Zone) NAD 27, in which the North line of the Northwest 1/4 of Section 25 bears N88°59'11" E.

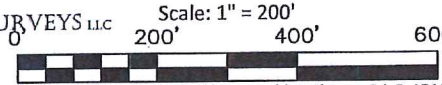
LEGEND

- Indicates set 1" iron pipe, 18" in length, 1.68 lbs. per lineal foot.
- Indicates found 1" iron pipe.
- ⓓ Indicates dedicated to the public for street purposes.
- ////// Indicates No Vehicular Access

Ⓜ INDICATES "DEDICATION AND EASEMENT PROVISIONS" NUMBER AS SHOWN ON SHEETS 4 AND 5.



CHAPUT LAND SURVEYS LLC
234 W. FLORIDA STREET
MILWAUKEE, WI 53204
414-224-8068
www.chaputlandsurveys.com



Date: February 4, 2015
Revised: May 26, 2015
Revised: September 30, 2015
Revised: October 27, 2015
Revised: December 9, 2015
Revised: December 21, 2015
Revised: February 1, 2016
Revised: February 22, 2016
Drawing No. 1309-deb

CERTIFIED SURVEY MAP NO. 2807

All of Lots 1 and 2 of Certified Survey Map No. 1281 and all of Parcel A and B of Certified Survey Map No. 603 and lands in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin.

WETLAND LINE TABLE								
WETLAND AREA 1								
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	N88°51'09"E	9.84'	L67	S88°51'24"E	17.24'	L133	S62°49'22"W	23.44'
L2	N24°42'44"W	17.54'	L68	S87°43'41"E	16.55'	L134	S52°45'43"W	33.93'
L3	N00°17'42"E	19.22'	L69	N48°34'05"E	29.71'	L135	S62°00'49"W	20.50'
L4	N15°51'16"E	13.84'	L70	N72°28'08"E	26.41'	L136	S42°30'42"W	15.02'
L5	N69°42'49"E	14.52'	L71	N85°11'57"E	23.31'	L137	S88°51'09"W	111.52'
L6	N63°33'41"E	19.67'	L72	N89°54'52"E	25.44'	L138	N13°17'09"E	25.30'
L7	N67°25'03"E	16.17'	L73	N62°47'13"E	24.60'	L139	N19°37'19"W	17.47'
L8	S83°42'13"E	11.53'	L74	S74°49'26"E	19.08'	L140	N74°35'46"W	20.95'
L9	S88°09'27"E	20.87'	L75	N71°16'40"E	13.56'	L141	N81°14'56"W	18.66'
L10	N75°59'48"E	23.29'	L76	N36°53'25"E	20.80'	L142	S79°09'49"W	29.80'
L11	S74°40'41"E	22.62'	L77	N33°35'05"E	14.72'	L143	N86°07'06"W	23.04'
L12	S79°07'57"E	15.87'	L78	S86°08'15"E	70.41'	L144	S73°35'10"W	22.68'
L13	S71°39'50"E	18.54'	L79	S56°37'23"E	34.67'	L145	S78°35'33"W	22.90'
L14	S62°04'50"E	11.49'	L80	S48°39'48"E	39.82'	L146	S20°15'03"W	20.27'
L15	N77°47'09"E	12.70'	L81	S31°04'33"E	23.22'	L147	S64°08'16"E	15.06'
L16	S81°23'03"E	25.29'	L82	S57°38'45"E	19.62'	L148	S55°09'39"E	19.55'
L17	N75°41'35"E	22.53'	L83	S62°26'14"E	25.79'	L149	S88°51'09"W	45.21'
L18	N68°08'29"E	19.69'	L84	S57°11'09"E	19.65'	WETLAND AREA 2		
L19	N66°09'33"E	20.48'	L85	S66°08'12"E	20.66'	L150	N02°12'00"W	34.00'
L20	N87°24'47"E	27.21'	L86	S49°58'20"E	19.80'	L151	N75°57'36"W	9.98'
L21	N76°09'18"E	21.95'	L87	S29°41'31"E	14.50'	L152	N48°32'05"W	18.95'
L22	N72°29'40"E	24.70'	L88	S82°41'12"E	20.88'	L153	N17°10'49"W	15.47'
L23	N59°09'27"E	17.25'	L89	N87°37'32"E	28.82'	L154	N59°38'32"W	13.49'
L24	N46°28'17"E	28.42'	L90	S84°35'40"E	24.04'	L155	N50°42'41"W	16.96'
L25	N17°13'39"E	20.62'	L91	N83°23'41"E	65.36'	L156	S45°27'55"W	10.01'
L26	N27°53'56"E	37.54'	L92	N82°58'33"E	23.74'	L157	S54°16'44"W	7.66'
L27	N37°58'06"E	21.21'	L93	N82°48'51"E	23.83'	L158	S66°08'28"W	13.53'
L28	N18°57'14"E	26.18'	L94	S87°20'17"E	24.09'	L159	N02°22'41"W	6.27'
L29	N03°36'50"E	41.36'	L95	N88°45'41"E	21.84'	L160	N71°50'54"E	7.74'
L30	N09°40'27"E	24.68'	L96	N88°35'58"E	20.70'	L161	N44°49'03"E	11.98'
L31	N36°27'03"E	22.07'	L97	N89°49'27"E	18.90'	L162	N49°03'22"E	9.33'
L32	N57°39'43"E	25.98'	L98	S88°39'58"E	26.04'	L163	N37°46'44"E	9.14'
L33	N36°11'23"E	16.24'	L99	S02°14'16"E	10.91'	L164	S78°04'23"E	17.44'
L34	N10°47'45"W	17.81'	L100	N88°51'57"W	31.46'	L165	N52°46'15"E	14.29'
L35	N23°17'12"W	34.98'	L101	S85°25'24"W	37.97'	L166	N60°14'25"E	22.30'
L36	N46°09'11"W	41.00'	L102	S86°50'25"W	39.60'	L167	S02°12'00"E	77.02'
L37	N73°02'28"W	14.34'	L103	S75°19'51"W	22.02'			
L38	N83°53'16"W	23.22'	L104	S17°05'12"W	22.94'			
L39	N87°22'50"W	23.46'	L105	S12°36'52"W	25.84'			
L40	S77°40'03"W	23.49'	L106	S53°46'00"W	13.66'			
L41	S85°42'10"W	29.57'	L107	S58°48'45"W	16.74'			
L42	S16°33'15"W	17.24'	L108	S39°22'16"W	15.37'			
L43	S85°07'37"W	23.24'	L109	S47°05'36"W	17.65'			
L44	S84°32'51"W	20.03'	L110	S76°28'58"W	27.33'			
L45	N85°36'02"W	22.67'	L111	N80°46'22"W	13.74'			
L46	S57°36'33"W	29.22'	L112	N03°35'35"W	15.27'			
L47	S37°33'19"W	21.35'	L113	N34°55'35"W	15.24'			
L48	S46°04'49"W	21.12'	L114	N85°25'01"W	16.04'			
L49	S08°03'44"W	25.92'	L115	N68°58'59"W	23.23'			
L50	N28°05'45"W	30.32'	L116	S82°41'27"W	26.18'			
L51	N06°15'06"W	24.47'	L117	N88°44'36"W	24.39'			
L52	N72°20'23"W	27.11'	L118	N62°05'04"W	28.80'			
L53	N30°36'33"W	21.01'	L119	N70°17'43"W	21.68'			
L54	S89°07'43"W	20.78'	L120	N71°24'19"W	26.43'			
L55	S65°31'44"W	14.77'	L121	N84°56'16"W	25.65'			
L56	S55°39'40"W	29.73'	L122	N84°37'21"W	33.42'			
L57	S80°22'41"W	24.54'	L123	S71°15'26"W	32.71'			
L58	N70°31'19"W	15.20'	L124	S65°27'55"W	28.00'			
L59	N20°23'13"W	14.67'	L125	S65°53'32"W	24.83'			
L60	N66°10'38"E	23.62'	L126	S07°32'46"W	21.63'			
L61	N80°35'04"E	26.54'	L127	S04°32'46"W	35.43'			
L62	N66°15'52"E	28.24'	L128	S13°44'36"W	27.79'			
L63	N88°26'58"E	33.08'	L129	S39°38'07"W	43.27'			
L64	S72°34'37"E	41.90'	L130	S20°54'44"W	28.43'			
L65	S76°18'12"E	36.18'	L131	S49°00'17"W	30.58'			
L66	N83°49'42"E	26.15'	L132	S25°18'33"W	28.71'			



Date: February 4, 2015
 Revised: May 26, 2015
 Revised: September 30, 2015
 Revised: December 21, 2015

CHAPUT LAND SURVEYS LLC
 234 W. FLORIDA STREET
 MILWAUKEE, WI 53204
 414-224-8068
 www.chaputlandsurveys.com

CERTIFIED SURVEY MAP NO. 2807

All of Lots 1 and 2 of Certified Survey Map No. 1281 and all of Parcel A and B of Certified Survey Map No. 603 and lands in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin.

SURVEYOR'S CERTIFICATE

STATE OF WISCONSIN)
:SS
MILWAUKEE COUNTY)

I, DONALD C. CHAPUT, Professional Land Surveyor, do hereby certify:

THAT I have surveyed, divided and mapped all of Lots 1 and 2 of Certified Survey Map No. 1281 and all of Parcel A and B of Certified Survey Map No. 603 and lands in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin which is bounded and described as follows:

Commencing at the East 1/4 corner of said Section 25; thence South 88°50'24" West along the North line of the Southeast 1/4 Section 337.05 feet to the West line of 120th Avenue (West Frontage Road) and the point of beginning of the lands hereinafter described; thence South 02°12'00" East along said West line 1326.85 feet to a point; thence North 88°51'09" East along said West line 56.41 feet to a point; thence South 02°15'26" East along said West line 300.01 feet to a point; thence South 88°51'09" West 1045.97 feet to a point; thence North 02°06'00" West 1626.59 feet to a point on the said North line; thence North 88°50'24" East along said North line 986.42 feet to the point of beginning. Lands contain 1,623,674 square feet or 37.2744 acres.

THAT I have made the survey, land division and map by the direction of Route 165, LLC., owner.

THAT the map is a correct representation of all the exterior boundaries of the land surveyed and the land division thereof made.

THAT I have fully complied with the provisions of Chapter 236 of the Wisconsin Statutes and the Village of Pleasant Prairie Code in surveying, dividing and mapping the same.

Date: February 4, 2015
Revised: May 26, 2015
Revised: September 30, 2015
Revised: December 21, 2015
Revised: February 1, 2016
Revised: February 22, 2016




DONALD C. CHAPUT
PROFESSIONAL LAND SURVEYOR S-1316

The following "Dedication and Easement Provisions" and "Restrictive Covenants" were drafted by the Village of Pleasant Prairie and are shown hereon as a condition of map approval. Inclusion thereof on this document is not to be considered practicing law in the State of Wisconsin by the above signed Land Surveyor, the Land Surveyor is not responsible for rights granted, perceived or otherwise stated herein.

DEDICATION AND EASEMENT PROVISIONS

1. The Dedicated Wetland Preservation and Protection Areas as graphically shown on Sheet 1 and legally described on Sheet 2 of this Certified Survey Map were field delineated by R.A. Smith National on May 21, 2013 and were field located by Heather Patti, a Wisconsin Department of Natural Resources assured delineator with R.A. Smith National in June, 2013 and approved by the U.S. Army Corps of Engineers on September 17, 2014 and revised on June 30, 2015, July 23, 2015, August 5, 2015, and August 14, 2015 by Heather Patti of R.A. Smith National.

2. The fee interest in the areas shown as a "Dedicated Public Street" on this Certified Survey Map (CSM) for 120th Avenue - West Frontage Road which is hereby dedicated, given, granted, and conveyed by Route 165 LLC to the WI DOT and for Uline Place which is hereby dedicated, given, granted and conveyed by Route 165 LLC to the Village of Pleasant Prairie, (the "Village") for the construction, installation, repair, alteration, replacement, planting and maintenance of public street improvements, uses and purposes, including, without limitation, pavement, curbs and gutters, bike lanes, if required by the Village or WI DOT, street signs, street lights, street trees, sanitary sewerage system improvements, water system improvements, storm sewer and drainage system improvements, utility and communications facilities, street tree landscaping, and for all related ingress and egress, construction, installation, repair, alteration, replacement, planting and maintenance activities. Such fee interest is subject to the following: (1) nonexclusive easements hereby reserved for the Owner of Lot 1 shown on this CSM which is adjacent to said Dedicated Public Street areas for the required planting, mowing, watering and maintenance of grass within the grassy terrace area, for the maintenance and replanting of street trees and the clearance, maintenance, repair and replacement of the bike lanes, if required by the Village and/or WI DOT in the area between the roadway and the Lot; and for the construction, installation, repair, replacement, maintenance and use of such private driveways in the area between the roadway and the Lot as are approved by the Village and/or WI DOT as will not interfere with the public improvements, uses and purposes of the Village and/or WI DOT (all subject to the rights of the Village and/or WI DOT to perform the same planting, replanting, construction, installation, repair, clearance, maintenance and replacement functions). In the event of any conflict between the rights of the Village and/or WI DOT under its fee interest in the Dedicated Public Street and the rights of the Owner of Lot 1, or of any Commercial Association pursuant to the easements retained herein, the rights of the Village and/or WI DOT shall be deemed to be superior.

CHAPUT LAND SURVEYS LLC

234 W. FLORIDA STREET
MILWAUKEE, WI 53204
414-224-8068
www.chaputlandsurveys.com

THIS INSTRUMENT WAS DRAFTED BY DONALD C. CHAPUT
PROFESSIONAL LAND SURVEYOR S-1316

Sheet 3 of 7 Sheets
Drawing No. 1309-deb

CERTIFIED SURVEY MAP NO. 2807

All of Lots 1 and 2 of Certified Survey Map No. 1281 and all of Parcel A and B of Certified Survey Map No. 603 and lands in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin.

DEDICATION AND EASEMENT PROVISIONS CONTINUED:

3. Nonexclusive easements coextensive within each area shown on this CSM as a "Dedicated Wetland Preservation and Protection, Access and Maintenance Easement" area are hereby dedicated, given, granted and conveyed by Route 165 LLC to the Village for wetland conservancy preservation, protection, and maintenance purposes and uses and for related ingress and egress. Notwithstanding such easements, the Village shall have no obligation to exercise its rights under these easements.
4. Nonexclusive easements coextensive within each area shown on this CSM as a "Dedicated Floodplain Preservation and Protection, Access and Maintenance Easement" area are hereby dedicated, given, granted and conveyed by Route 165 LLC to the Village for floodplain conservancy preservation, protection and maintenance purposes and uses and for related ingress and egress. Notwithstanding such easements, the Village shall have no obligation to exercise its rights under these easements.
5. Perpetual nonexclusive easements coextensive with the areas shown on this CSM as a "Dedicated 60' Public Sanitary Sewer and Public Water Main, Access and Maintenance Easement" and a "Dedicated 20' Public Water Main, Access and Maintenance Easement" area are hereby dedicated, given, granted and conveyed by Route 165 LLC to the Village for public sanitary sewerage system improvements, public water system improvements, uses and purposes, and for all related ingress and egress, construction, installation, repair, alteration, replacement and maintenance activities. The Dedicated Public Sanitary Sewer and Public Water Main, Access and Maintenance Easement and Dedicated Public Watermain, Access and Maintenance Easement areas shall be exclusive, except for: (1) such other easements as may be dedicated on this CSM with respect to the same area or any portion thereof; (2) such use; plantings, landscape islands, curbs and gutters, and parking lot repairs and replacement; and care and maintenance of the surface easement area by the Owner of Lot 1 on which such easements are located as will not interfere with the improvements, uses, maintenance and purposes of the Village; and (3) such driveways, parking lots or other uses of the easement areas that might interfere with the Village's rights, which are subject to approval and any conditions in writing that may be imposed by the Village. In the event of any conflicts between the rights of the Village pursuant to this Dedicated 60' Public Sanitary Sewer and Public Water Main, Access and Maintenance Easement area and Dedicated 20' Public Watermain, Access, and Maintenance Easement area and the rights of any other persons or entities with respect to these easement areas, the Village's rights under these easements shall be deemed to be superior.
6. Perpetual nonexclusive easements coextensive with the areas shown on this CSM as either a "Dedicated Storm Water Drainage, Retention Basin, Access and Maintenance Easement area or as Dedicated Storm Water Drainage, Access and Maintenance Easement areas are hereby dedicated, given, granted and conveyed by Route 165 LLC to the Village for storm water drainage system improvements, uses and purposes, and for all related ingress and egress, construction, installation, repair, alteration, replacement and maintenance activities. The Dedicated Storm Water Drainage, Retention Basin, Access and Maintenance Easement areas and Dedicated Storm Water Drainage, Access and Maintenance Easement areas shall be exclusive, except for: (1) such other easements as may be dedicated on this CSM with respect to the same areas or any portion thereof; (2) such use; drainage, fountains, and planting; and care and storm water maintenance of the areas by the Owner of Lot 1 on which such easements are located as will not interfere with the improvements, uses and purposes of the Village; and (3) such other uses of the easement areas that might interfere with the Village's rights, subject to approval and any conditions in writing that may be imposed by the Village. In the event of any conflicts between the rights of the Village pursuant to the Dedicated Storm Water Drainage, Retention Basin, Access and Maintenance Easement areas or the Dedicated Storm Water Drainage, Access and Maintenance Easement areas and the rights of any other persons or entities with respect to this easement areas, the Village's rights under these easements shall be deemed to be superior.

RESTRICTIVE COVENANTS

1. Route 165 LLC hereby covenants that the Owner of Lot 1 shown on this CSM shall have the obligation of maintaining all of the Dedicated Storm Water Drainage, Retention Basin, Access and Maintenance Easement areas and the Dedicated Storm Water Drainage, Access and Maintenance Easement areas on Lot 1 in a functional, neat and nuisance free condition to handle storm water and drainage in the Development. Such maintenance shall include, without limitation and as needed, grading, seeding or sodding, maintaining erosion control methods to protect the drainage ways; ditching to reestablish design capacity; removing of trash, debris, leaves and brush; storm pipe maintenance clearing, repairing and replacing inlets, installing, removing and replacing any retention basin fountains, outlets and catch basin structures; mowing; planting; and weeding to prevent nuisance conditions. No driveways, fences, or structures shall be installed within the storm water drainage areas or retention basins which blocks, diverts or re-routes the drainage flow or that would likely interfere with the storm water function and flow, unless express written approval is granted by the Village and subject to any such conditions in writing as the Village may impose. This covenant shall run with the land, shall be binding upon the Owner of Lot 1, its successors, assigns and successors-in-title of Lot 1, in their capacity as Owner of Lot 1, and shall benefit and be enforceable by the Village. To the extent that the Village performs any such storm water related maintenance activities, following notice to Owner of Lot 1 and reasonable opportunity to perform said maintenance activities, the Owner of Lot 1 shall be liable for any costs which may be incurred by the Village, which the Village may recover from such Owner of Lot 1 as special assessments or special charges under Section 66.0627 (or successors or similar provisions) of the Wisconsin Statutes or otherwise according to law. Unless the Village exercises the rights granted to it in the Dedications and Easement Provisions on this CSM, the Village shall have no obligation to do anything pursuant to its rights under these dedications.

CHAPUT LAND SURVEYS LLC
234 W. FLORIDA STREET
MILWAUKEE, WI 53204
414-224-8068
www.chaputlandsurveys.com

Sheet 4 of 7 Sheets

THIS INSTRUMENT WAS DRAFTED BY DONALD C. CHAPUT
PROFESSIONAL LAND SURVEYOR S-1316



Date: February 4, 2015
Revised: May 26, 2015
Revised: September 30, 2015
Revised: October 27, 2015
Revised: December 21, 2015
Revised: February 1, 2016
Revised: February 22, 2016
Drawing No. 1309-deb

CERTIFIED SURVEY MAP NO. 2807

All of Lots 1 and 2 of Certified Survey Map No. 1281 and all of Parcel A and B of Certified Survey Map No. 603 and lands in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin.

RESTRICTIVE COVENANTS CONT.

2. Route 165 LLC hereby covenants that the 60' Dedicated Public Sanitary Sewer and Public Water Main, Access and Maintenance Easement and 20' Dedicated Public Water Main, Access and Maintenance Easement shown on the CSM hereby places restrictions on the referenced land on Lot 1 because of the location of the public sanitary sewer main and public water main easements which were given, granted and conveyed by Route 165 LLC to the Village for public sanitary sewer purposes and system improvements, public water purposes and system improvements, uses and purposes, and for all related and incidental ingress and egress, construction, installation, repair, alteration, replacements, plantings, maintenance and inspection activities to serve the development as referenced in the Dedication and Easement Provisions on this CSM. Route 165 LLC further covenants that there shall be no buildings, fencing, parking lots, driveways, and landscaping or other improvements of any kind placed within the easement areas without prior written approval of the Village and subject to any conditions in writing that may be imposed by the Village. Since the Village is allowing for the placement of parking lots, driveways or landscaping within the Public Sanitary Sewer and Public Water Main Easement areas granted to the Village as shown on the approved Site and Operational Plans for the development, when the Village exercises its non-exclusive rights to maintain, repair or replace said public sewer and public water main and related appurtenances, 24-hour access to the easement areas shall be allowed with notice to the Owner of Lot 1. In addition, the Lot 1 owner not the Village, shall be responsible for any and all costs associated with the removal and/or replacement of said parking lots, curbs and gutters, paving, driveways and landscaping. The Owner shall also grant vehicular access through the parking lot to access the Public Sanitary Sewer and Public Water Easement areas for all emergency repairs and with proper notification the annual maintenance, which shall include but not be limited to exercising valves, flushing hydrants, and inspecting manholes. This covenant shall run with the land, shall be binding upon the Owner of Lot 1, its successors, assigns and successors-in-title of the land, in their capacity as the Owner of Lot 1, and shall benefit and be enforceable by the Village.

3. Route 165 LLC hereby covenants that the Owner of Lot 1 shall have the obligation of protecting and preserving the Wetland Preservation and Protection, Access and Maintenance Easement areas shown on this CSM. Such maintenance may include without limitation and as needed removing of dead, dying or decayed trees, plant material or invasive species and wetland plant life as approved by the Village and the Wisconsin Department of Natural Resources, along with removing of trash or debris in order to prevent a nuisance condition. No mowing or cutting of the wetlands shall be allowed unless approved by the Village. No signage or fences shall be erected within the wetlands that would likely damage the wetland areas. This covenant shall run with the land, shall be binding upon the Owner, its successors, assigns and successors-in-title of the land, in their capacity as the Owner of Lot 1, and shall benefit and be enforceable by the Village. The Owner of Lot 1 shall perform such maintenance as may be needed, without compensation, and to the satisfaction of the Village. To the extent that the Village performs any such wetland related maintenance activities, following notice to the Owner of Lot 1 and reasonable opportunity to perform said maintenance activities, the Owner of Lot 1 shall be liable for any costs which may be incurred by the Village, which the Village may recover from such Owner of Lot 1 as special assessments or special charges under Section 66.0627 (or successors or similar provisions) of the Wisconsin Statutes or otherwise according to law. Unless the Village exercises the rights granted to it in the Dedications and Easement Provisions on this CSM, the Village shall have no obligation to do anything pursuant to its rights under these dedications.

4. Route 165 LLC hereby covenants that the Owner of Lot 1 shall have the obligation of protecting and preserving the Floodplain Preservation and Protection, Access and Maintenance Easement areas shown on this CSM. Such maintenance may include without limitation and as needed removing of dead, dying or decayed trees, plant material or invasive species, and wetland plant life as approved by the Village and the Wisconsin Department of Natural Resources, along with removing of trash or debris in order to prevent a nuisance condition. No signage or fences shall be erected within the floodplain that would likely divert or block the drainage of the floodplain areas. This covenant shall run with the land, shall be binding upon the Owner, its successors, assigns and successors-in-title of the land, in their capacity as the Owner of Lot 1, and shall benefit and be enforceable by the Village. The Owner of Lot 1 shall perform such maintenance as may be needed, without compensation, and to the satisfaction of the Village. To the extent that the Village performs any such floodplain related maintenance activities, following notice to Owner of Lot 1 and reasonable opportunity to perform said maintenance activities, the Owner of Lot 1 shall be liable for any costs which may be incurred by the Village, which the Village may recover from such Owner of Lot 1 as special assessments or special charges under Section 66.0627 (or successors or similar provisions) of the Wisconsin Statutes or otherwise according to law. Unless the Village exercises the rights granted to it in the Dedications and Easement Provisions on this CSM, the Village shall have no obligation to do anything pursuant to its rights under these dedications.

5. Route 165 LLC hereby covenants that the Owner of Lot 1 shall have the obligation of paying the ongoing electrical utility and facility maintenance costs and related administrative charges for the public street lighting serving and benefiting their Development. The Village intends to establish a Street Lighting Utility District for the collection of such charges. Such costs will be billed directly to the Owner unless and until a separate Commercial Owners Association is formally established for the development, at which time the Association will be invoiced for said costs by the Village on a regular basis.

6. The Owner hereby covenants that the Lot 1 Owner shall have the obligation of planting, maintaining and replacing the street trees and plantings located within the 120th Avenue (West Frontage Road) and Uline Place rights-of-way areas shown on this CSM. Such planting and maintenance shall include without limitation and as needed planting, staking, mulching, weeding, pruning, watering, replanting, and removing of trash, debris, leaves and brush around the trees in order to prevent a nuisance condition. No driveways, signage, mail boxes, parking areas, structures or fences shall be erected within the right-of-ways, which might damage the street trees, plantings or terrace areas or might interfere with the Village's right but not the obligation to maintain the public street improvements, unless approved in writing by the Village. This covenant shall run with the land, shall be binding upon the Owner, its successors, assigns and successors-in-title of the land, in their capacity as the Owner of Lot 1, and shall benefit and be enforceable by the Village. To the extent that the Village performs, any such street tree, plantings or terrace maintenance activities in Uline Place or West Frontage Road right-of-ways, the Owner shall be liable for any costs which may be incurred by the Village, which the Village may recover from such Owner as special assessments or special charges under Section 66.0627 (or successors or similar provisions) of the Wisconsin Statutes or otherwise according to law.

7. The Owner hereby covenants that the Lot 1 Owner shall have the obligation of installing, repairing, replacing, and providing right-of-way improvements and maintenance for Uline Place, including its pavements, curb and gutter, lighting, signage and pavement markings, without compensation, and to the satisfaction of the Village. To the extent that the Village performs, any such Uline Place maintenance activities, the Owner shall be liable for any costs, which may be incurred by the Village, which the Village may recover from such Owner as special assessments or special charges under Section 66.0627 (or successors or similar provisions) of the Wisconsin Statutes or otherwise according to law.



CHAPUT LAND SURVEYS LLC
234 W. FLORIDA STREET
MILWAUKEE, WI 53204
414-224-8068
www.chaputlandsurveys.com
Sheet 5 of 7 Sheets

THIS INSTRUMENT WAS DRAFTED BY DONALD C. CHAPUT
PROFESSIONAL LAND SURVEYOR S-1316

Date: February 4, 2015
Revised: May 26, 2015
Revised: September 30, 2015
Revised: October 27, 2015
Revised: December 21, 2015
Revised: February 1, 2016
Revised: February 22, 2016

Drawing No. 1309-deb

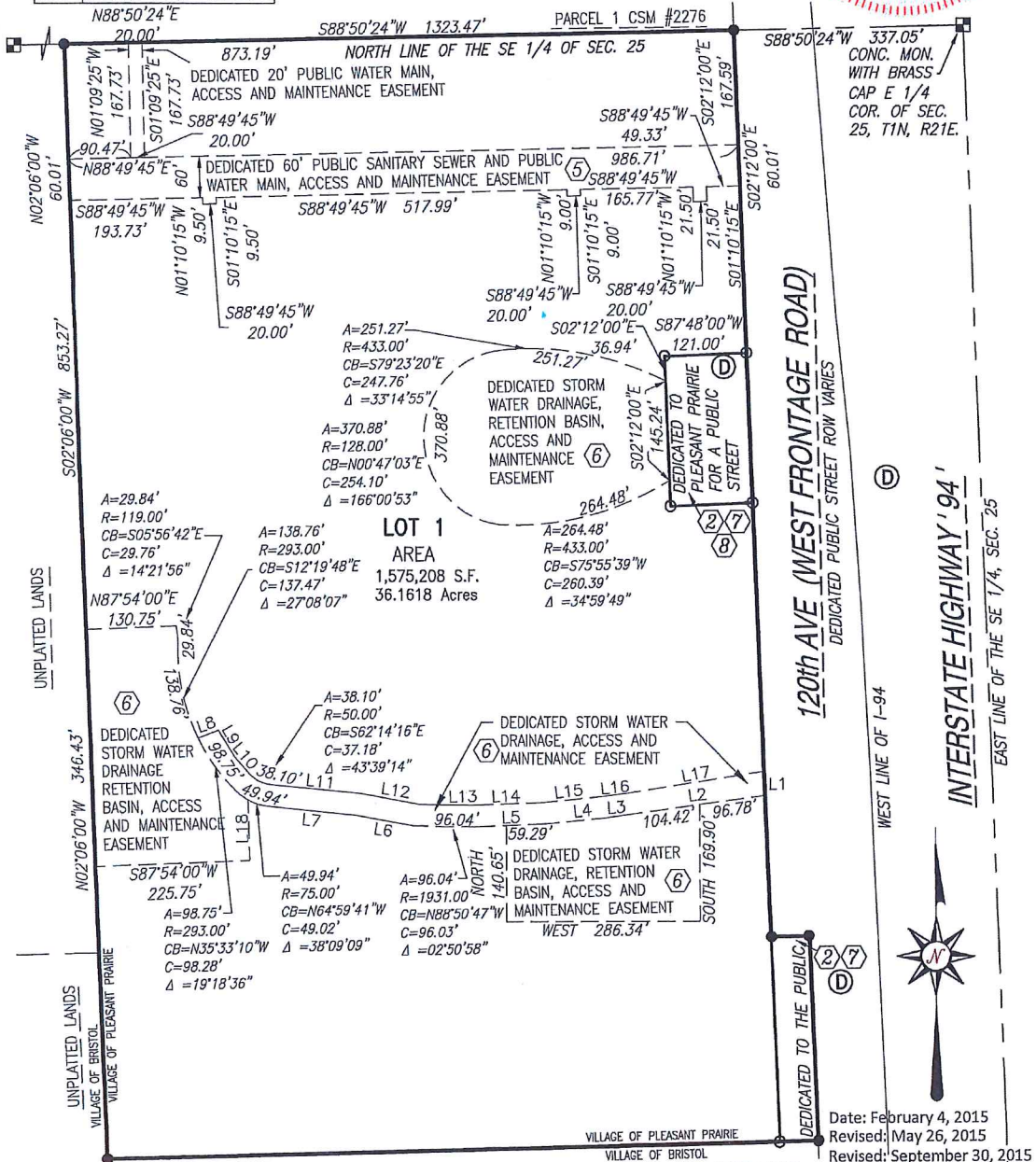
CERTIFIED SURVEY MAP NO. 2807

All of Lots 1 and 2 of Certified Survey Map No. 1281 and all of Parcel A and B of Certified Survey Map No. 603 and lands in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin.

EASEMENT LINE TABLE			
LINE	BEARING	LINE	BEARING
L1	S02°12'00"E 36.27'	L11	S84°03'53"E 130.81'
L2	S82°19'18"W 201.20'	L12	N79°25'01"W 89.52'
L3	S82°38'42"W 35.09'	L13	N88°55'34"W 81.15'
L4	S84°29'09"W 89.22'	L14	N87°50'24"E 103.77'
L5	S87°50'24"W 102.13'	L15	N84°29'09"E 87.81'
L6	N79°25'01"W 82.86'	L16	N82°38'42"E 34.12'
L7	N84°04'16"W 131.47'	L17	N80°53'47"E 205.03'
L8	N69°02'56"E 31.50'	L18	S01°47'30"E 91.05'
L9	S31°39'43"E 45.53'		
L10	S40°24'39"E 31.83'		

EASEMENT DETAIL

Ⓢ INDICATES "DEDICATION AND EASEMENT PROVISIONS" NUMBER AS SHOWN ON SHEETS 3 AND 4.



CHAPUT LAND SURVEYS LLC
234 W. FLORIDA STREET
MILWAUKEE, WI 53204
414-224-8068
www.chaputlandsurveys.com

Scale: 1" = 200' UNPLATTED LANDS
0 200' 400' 600'

This instrument was drafted by: Donald C. Chaput P.L.S. 1316

Date: February 4, 2015
Revised: May 26, 2015
Revised: September 30, 2015
Revised: October 28, 2015
Revised: December 21, 2015
Revised: February 1, 2016
Revised: February 22, 2016
Drawing No. 1309-deb

CERTIFIED SURVEY MAP NO. 2807

All of Lots 1 and 2 of Certified Survey Map No. 1281 and all of Parcel A and B of Certified Survey Map No. 603 and lands in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin.

OWNER'S CERTIFICATE of DEDICATION

Route 165 LLC, a Delaware limited liability company, duly organized and existing under and by virtue of the laws of the State of Delaware, as owner, hereby certifies that said limited liability company caused the land described on this map to be surveyed, divided, mapped and dedicated as represented on this map in accordance with the requirements of the Village of Pleasant Prairie

Route 165 LLC, as owner, does further certify that this map is required by s.236.34 to be submitted to the following for approval: Village of Pleasant Prairie

IN WITNESS WHEREOF, Route 165 LLC, has caused these presents to be signed by the hand of Phillip D. Hunt, Member, on this 4th day of March, 2016.

In presence of:

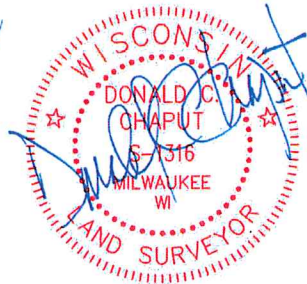
[Signature]
(Witness)

[Signature], Member

STATE OF WISCONSIN)
Kenosha COUNTY) SS

Personally came before me this 4th day of March, 2016, the above named Phillip Hunt, member of Route 165 LLC, to me known to be the same person who executed the foregoing instrument and acknowledged that they executed the foregoing instrument as such officer as the deed of said limited liability company, by its authority.

Pat Murrell Pat Murrell
Notary Public, Kenosha County
Wisconsin
My commission expires 9/7/18



VILLAGE BOARD APPROVAL

Resolved that the Certified Survey Map located in the Northwest 1/4 and Southwest 1/4 of Section 25, Town 1 North, Range 21 East, Village of Pleasant Prairie is approved by the Village Board of the Village of Pleasant Prairie.

Date 2/1/16

[Signature]
John P. Steinbrink, Village President

[Signature]
Jane M. Romaniowski, Village Clerk

Date 2/1/16

PLAN COMMISSION APPROVAL

Approved that the Certified Survey Map located in the Southeast 1/4 of Section 25, Township 1 North, Range 21 East, Village of Pleasant Prairie is approved by the Plan Commission of the Village of Pleasant Prairie.

Date 1/25/16

[Signature]
Thomas W. Terwall, Chairman

Development Agreement (H2)
Route 165 LLC (Uline)

EXHIBIT B
Purchase and Sale Agreement (Village CDA to Route 165 LLC)

See Attached

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (“Agreement”) is made and entered into as of June 25, 2014 by and between **Route 165 LLC**, a Wisconsin limited liability company (“Purchaser”), and **Village of Pleasant Prairie Community Development Authority** (“Seller”).

RECITALS

A. Seller currently owns fee simple title to approximately 38 +/- acres constituting three parcels of real estate located in the Village of Pleasant Prairie, Wisconsin identified as tax parcels 91-4-121-254-0122 (“Parcel A”), 91-4-121-254-0401 (“Parcel B”), and 91-4-121-254-0406 (“Parcel C”) legally described in **Exhibit “A”** attached hereto and made a part hereof (altogether, the “Land”).

B. Purchaser desires to purchase from Seller, and Seller desires to sell to Purchaser, the Property (as hereinafter defined) in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and conditions hereinafter set forth, and other good and valuable consideration, the mutual receipt and sufficiency of which are hereby acknowledged by the parties hereto, it is agreed:

1. **Agreement to Purchase.** Seller agrees to sell to Purchaser, and Purchaser agrees to purchase from Seller, all of the following described property (collectively, the “Property”):

The Land and all rights, privileges, easements and appurtenances to the Land owned by Seller, including, without limitation, all mineral rights, easements, rights-of-way and other appurtenances used or connected with the beneficial use or enjoyment of the Land; any right, title and interest of Seller in and to all roads, streets, highways, and water courses or water bodies adjacent to, abutting or serving the Land; and any improvements now located on the Land;

2. **Purchase Price.** Subject to prorations and credits as hereinafter provided, the purchase price for the Property shall be the sum of Four Million Three Hundred Seventy-Two Thousand Five Hundred Fifteen Dollars (\$4,372,515.00) (“Purchase Price”) (which equates to an average price of \$115,675.00/acre for the entire 37.80 acres).

The Purchase Price shall be paid as follows:

A. **Earnest Money.** Purchaser shall deposit One Hundred Thousand Dollars (\$100,000.00) (the “Earnest Money”) in an interest bearing account with the Title Company (as hereinafter defined) within five (5) business days after its receipt of an executed counterpart of this Agreement from Seller (the “Effective Date”). At Closing (as hereinafter defined), the Earnest Money shall be applied towards the Purchase Price. The Earnest Money shall be refundable at any time during the Inspection Period (as hereinafter defined), thereafter to serve as liquidated damages in the event of a default by Purchaser; provided, however, in the event Seller defaults in any of its obligations under this Agreement, Seller shall be required to return the Earnest Money to Purchaser, whether such default occurs prior to or after the Inspection Period.

B. **Balance.** On or before the Closing Date (as hereinafter defined), Purchaser shall deposit with the Title Company, as escrowee (“Escrowee”), the balance of the Purchase Price, plus or minus prorations, in cash, or by certified or cashier’s check or Federal wire transfer.

3. **Closing.** Subject to the terms and conditions contained in this Agreement, the consummation of the transactions herein contemplated ("**Closing**") shall be held on or before twenty (20) days after the expiration of the Inspection Period or any extension thereof ("**Closing Date**"). The transaction herein contemplated shall be closed through an escrow with Landmark Title Corporation ("**Title Company**") in Kenosha, Wisconsin, on the Closing Date, in accordance with the general provisions of the usual form of Deed and Money Escrow Agreement then in use by the Title Company, with such special provisions inserted in the escrow agreement as may be required to conform with this Agreement ("**Closing Escrow**"). Upon the creation of the Closing Escrow, anything herein to the contrary notwithstanding, payment of the Purchase Price and delivery of the Deed (as hereinafter defined) and other documents to be delivered pursuant to Section 6 below, shall be made through the Closing Escrow. Seller, and Purchaser if required, shall execute "Gap Undertaking" in the form required by the Title Company in order to close.

4. **Documents to be Delivered by Seller Prior to Closing.** Within ten (10) business days after the Effective Date, Seller shall deliver to Purchaser all of the following materials pertaining to the Property (collectively, the "**Property Information**"):

A. **Title Commitment.** Seller shall provide a copy of Seller's Title Commitment.

B. **Plans and Specifications.** To the extent in Seller's possession or control, copies of the plans and specifications for any on-site improvements or utility services.

C. **Environmental.** Copies of any reports or studies (including engineering, environmental site assessments (whether Phase I or Phase II) and physical inspection reports) in respect of the Property. If applicable, Seller shall execute and deliver to Purchaser a Waiver of Conflict allowing Purchaser (at Purchaser's election) to update any existing Phase I Assessment using Purchaser's environmental consultant.

D. **Taxes & Assessments.** A copy of the bill or bills or tax certificates issued for the most recent calendar year for which bills or certificates have been issued for all real estate taxes, if any, and a copy of any and all assessments or reassessments pertaining to the Property.

E. **Use & Zoning.** All documents in Seller's possession or control relating to any special or conditional uses or zoning variances concerning the Property, and any annexation or pre-annexation agreements pertaining to the Land.

5. **Title and Survey.**

A. **Conditions of Title.** Good and marketable fee simple title to the Property shall be conveyed by Seller to Purchaser or its nominee by a general warranty deed (the "**Deed**") subject only to the Permitted Exceptions (as hereinafter defined).

B. **Title Insurance Commitment.** Within sixty (60) days after the Effective Date, Purchaser shall obtain (a) a commitment (the "**Commitment**") for an Owner's Policy of Title Insurance issued by the Title Company showing title to the Property in Seller and (b) legible copies of all documents cited, raised as exceptions or noted in the Commitment (the "**Title Documents**"). Purchaser shall send copies of the Title Commitment and Title Documents to Seller within five (5) business days after receipt thereof by Purchaser.

C. **Survey.** Within ninety (90) days after the Effective Date, Purchaser shall obtain a survey of the Property dated subsequent to the Effective Date, prepared by a land surveyor licensed in Wisconsin ("**Surveyor**") prepared in accordance with the most recent ALTA Land Survey Standards and so certified to Purchaser and Title Company ("**Survey**"). The Survey shall state the gross area of

the Land and the Useable acres of the Land (both expressed to the nearest one-thousandth of an acre).

D. Title and Survey Review. Purchaser shall have a period of thirty (30) days from receipt of the later of the Survey, the Commitment and the Title Documents ("**Title Review Period**") in which to review such documents and deliver to Seller in writing, at Purchaser's election, such objections as Purchaser may have to any matters contained in the documents ("**Purchaser's Objection Notice**"; any of said objections listed on Purchaser's Objection Notice are deemed the "**Objectionable Exceptions**"). Seller shall utilize its best efforts, prior to the expiration of the Inspection Period, to cure any Objectionable Exceptions and to agree with Purchaser as to any Objectionable Exceptions which will be removed after the Inspection Period, but prior to Closing ("**Removable Exceptions**"); provided, however, Seller shall not be required to provide any title indemnities, personal undertakings (other than a "Gap Undertaking" at Closing), or post any security or collateral or pay additional or extraordinary premiums to the Title Company; provided further, however, the Seller shall be required at Closing to pay liens of a definite or ascertainable amount or to take such steps as are necessary to insure over such liens in a manner which is reasonably satisfactory to Purchaser and the Title Company. In the event Seller, despite its best efforts, fails to cure any of said Objectionable Exceptions prior to the expiration of the Inspection Period or fails to agree with Purchaser as to any Removable Exceptions, Purchaser shall have the right to either (a) terminate this Agreement by delivering written notice to Seller on or prior to the expiration of the Inspection Period, in which event each party shall be released from further liability to the other or (b) Purchaser may consummate the transaction contemplated by this Agreement in accordance with the terms hereof, in which event, subject to the provisions of Section 5.E. below, all exceptions to title listed on Schedule B of the Commitment as of the expiration of the Inspection Period and all matters contained in the Survey shall conclusively be deemed to constitute Permitted Exceptions. The parties agree to amend this Agreement promptly after the expiration of the Inspection Period to attach to this Agreement, as Exhibit "B", the Permitted Exceptions determined pursuant to this Section 5.D.

E. Unpermitted Exceptions. If an exception to title or other title defect other than a Permitted Exception is added to the Commitment subsequent to the date of its initial issuance, but prior to the Closing Date ("**Unpermitted Exceptions**"), then, prior to the Closing Date, Seller shall be affirmatively obligated to cure any such Unpermitted Exception.

F. Title Policy. On the Closing Date, Seller shall cause Title Company to issue to Purchaser the most recently adopted ALTA Owner's Policy of Title Insurance ("**Title Policy**") or irrevocable commitment to issue same covering the Property in the amount of the Purchase Price, showing fee simple title vested in Purchaser, with extended coverage over all general exceptions. Purchaser may obtain, at Purchaser's expense, all or any of the following endorsements: (i) an ALTA 3.0 zoning endorsement, (ii) an access endorsement, (iii) a utility facility endorsement, (iv) a restrictions endorsement insuring over the recorded covenants, conditions or restrictions of record, (v) an endorsement insuring that the real estate tax bills relating to the Property do not include real estate taxes pertaining to any other real estate, (vi) a creditor's rights endorsement, (vii) a contiguity endorsement, if applicable, and (viii) encroachment endorsements, if applicable, subject only to (a) general taxes not yet due or payable, (b) any matters listed on the attached Exhibit "B" (as same may be amended and completed in accordance with Section 5.D. of this Agreement), and (c) matters created by, through or under Purchaser (collectively, "**Permitted Exceptions**").

G. Costs. Purchaser shall advance the cost of the Title Commitment and the cost of procuring copies of the Title Documents, but if there is a Closing, Seller shall reimburse the Purchaser for the cost of the Title Commitment and the cost of procuring copies of the Title Documents. Purchaser shall pay the cost of the Survey.

6. **Documents to be Delivered at Closing.**

A. **Seller's Closing Documents.** Seller shall deliver to Escrowee, pursuant to the Closing Escrow, on or before the Closing Date, the following documents, all of which shall be subject to Purchaser's reasonable prior review and approval as to form, scope and substance, the delivery of all of which shall be a specific condition to Closing:

- (i) The Deed;
- (ii) The Title Policy;
- (iii) A non-foreign certificate in accordance with the provisions of Section 20 hereof;
- (iv) A certificate from Seller stating that the representations and warranties set forth in Section 8 are true and correct as of the date of Closing in the form of **Exhibit "C"** attached hereto and made a part hereof, as same shall be deemed modified by Purchaser's Due Diligence Knowledge;
- (v) An ALTA statement or Owner's Affidavit from Seller in such form as is required by the Title Company;
- (vi) A personal "GAP Undertaking" from Seller as required by the Title Company;
- (vii) Tax letters for all tax numbers affecting the Land;
- (viii) Such proof of Seller's authority and authorization to enter into this Agreement, execute and deliver the Deed and otherwise perform Seller's obligations under this Agreement, as may be reasonably required by Purchaser and/or Title Company;
- (ix) Such other documents as Purchaser may reasonably request to enable Purchaser to consummate the transaction contemplated by this Agreement; provided none of said additional documents imposes any cost or obligation upon Seller not otherwise specifically imposed upon Seller pursuant to the terms of this Agreement.

B. **Purchaser's Closing Documents.** Purchaser shall deliver to Escrowee pursuant to the Closing Escrow, on or before the Closing Date, the following monies and documents, the delivery of all of which shall constitute a specific condition to Closing.

- (i) The balance of the Purchase Price, plus or minus proration, plus Purchaser's share of Closing costs pursuant to the terms of this Agreement;
- (ii) Proof of Purchaser's authority and authorization to enter into this Agreement and perform Purchaser's obligations under this Agreement as may be reasonably required by Seller and/or Title Company; and
- (iii) Such other documents as Seller may reasonably request to enable Seller to consummate the transaction contemplated by this Agreement, provided none of said additional documents impose any cost or obligation upon Purchaser not otherwise specifically imposed upon Purchaser pursuant to the terms of this Agreement.

C. Joint Closing Documents. Each of Seller and Purchaser shall deliver to Escrowee, pursuant to the Closing Escrow, and the parties hereby covenant and agree to deliver to Escrowee on or before the Closing Date, the mutual delivery of which shall be a specific condition to Closing:

(i) Three (3) copies of a closing statement, prepared in accordance with Sections 14 and 15 hereof; and

(ii) To the extent required, State, County and Municipal transfer tax declarations.

7. Inspection Period.

A. For purposes of this Agreement, the “**Inspection Period**” means the period which begins on the Effective Date and ends at 11:59 PM Central Time on the one hundred and eightieth (180th) day thereafter. During the Inspection Period, Purchaser, its agents and representatives shall be entitled (upon reasonable advance notice to Seller) to conduct one or more inspections (herein referred to as “**Property Inspections**”), which will include, but shall not be limited to, the rights to: (i) enter upon the Land to perform inspections and tests of the Property; (ii) exam and copy any and all documents, public or private, in the possession or control of Seller or its agents and pertaining to the Property; (iii) make investigations with regard to environmental matters, soil and geotechnical conditions, archaeological and natural resource conditions, wetlands, and other physical conditions and legal requirements including, but not limited to, an “**Environmental Assessment**” as specified in Section 7.B. below. Purchaser may, in its sole and absolute discretion, elect to terminate this Agreement for any reason whatsoever, or for no reason, by giving written notice of such termination to Seller not later than the last day of the Inspection Period. If this Agreement is terminated by Purchaser prior to the last day of the Inspection Period, or any time thereafter in the event of a default by Seller hereunder, the Earnest Money shall be returned to Purchaser.

The parties hereto acknowledge that Purchaser will expend material sums of money in reliance on Seller’s obligations under this Agreement, in connection with negotiating and executing this Agreement, furnishing the Earnest Money, conducting the inspections contemplated by this Section 7 and preparing for Closing, and that Purchaser would not have entered into this Agreement without the opportunity to conduct the Property Inspections. The parties therefore agree that adequate consideration exists to support Seller’s obligations hereunder. Notwithstanding anything to the contrary contained herein, the effect of any representations, warranties or undertakings made by Seller in this Agreement shall not be diminished, abrogated, or compromised by the Property Inspections or any Environmental Assessment or other inspections, tests or investigations made by Purchaser, except to the extent that Purchaser knew, or after the exercise of reasonable diligence should have known, of facts during the course of the Inspection Period which would reasonably cause Purchaser to know that a representation or warranty of Seller is untrue, incomplete or inaccurate (such actual knowledge being herein called “**Purchaser’s Due Diligence Knowledge**”). Purchaser, at its sole cost and expense, covenants and agrees to proceed diligently and in good faith in completing the Property Inspections.

B. During the Inspection Period, Purchaser or Purchaser’s agent(s) shall have the right to employ one or more environmental consultants or other professional(s) to perform or complete a Phase I and/or Phase II environmental inspection and assessment (herein collectively referred to as the “**Environmental Assessment**”) of the Property, and Seller acknowledges and consents to such Environmental Assessment. Purchaser and its consultants shall also have the right to undertake or complete a technical review of all documentation, reports, plans, studies and information in possession or control of Seller, or its past or present environmental consultants, concerning or in any way related to the environmental condition of the Property. In order to facilitate the Environmental Assessment and technical review, Seller shall extend its full cooperation (but without third party expense to Seller) to Purchaser and its environmental consultants, including, without limitation, providing access to all

files and fully and completely answering all questions. The Environmental Assessment shall evaluate the present and past uses of the Property, and the presence on, in or under the Land (and on, in or under land sufficiently proximate to the Property) of any Hazardous Materials.

C. Purchaser hereby covenants and agrees that it shall cause all studies, investigations and inspections (including, but not limited to, the Environmental Assessment), performed at the Property pursuant to this Section 7 to be performed in a manner that does not unreasonably disturb or disrupt the Property, and representatives of Seller shall have the right to accompany Purchaser and its representatives during the Property Inspection or any Environmental Assessments. In the event that, as a result of Purchaser's exercise of its rights under Section 7, any damage occurs to the Property, then Purchaser shall promptly repair such damage, at Purchaser's sole cost and expense, so as to return the Property to substantially the same condition. Purchaser shall compensate any farm tenant of the Land for loss or damage to crops caused by Purchaser's or its contractors' activities on or about the Land, not to exceed \$300.00 per planted acre. Purchaser hereby indemnifies, protects, defends and holds Seller harmless from and against any and all losses, damages, causes of action, judgments, damages, costs and expenses that Seller actually suffers or incurs as a direct result of any damage caused at, to, in, or at the Property during the course of, or as a result of, any or all of the studies, investigations and inspections (including, but not limited to, the Environmental Assessment), that Purchaser elects to perform (or cause to be performed) pursuant to this Section 7.

D. In the event that Purchaser is unable to complete its due diligence within the Inspection Period, Purchaser shall have the one time right to extend the Inspection Period for an additional thirty (30) days upon notice to Seller prior to the expiration of the Inspection Period. In the event Purchaser provides such notice to Seller, an additional earnest money deposit of Twenty-five Thousand Dollars (\$25,000.00) shall be deposited with the Title Company within 5 business days of Purchaser's election to extend the Inspection Period.

8. Representations and Warranties of Seller.

A. Seller's Representations and Warranties. In order to induce Purchaser to enter into this Agreement, Seller hereby represents and warrants to Purchaser as follows, and all of the foregoing and following representations and warranties shall be true and correct as of the Closing Date:

(i) Seller is not a party to any lease, contract, agreement or commitment to sell, convey, assign, transfer, provide rights of first refusal or other similar rights or otherwise dispose of any portion or portions of the Property. Neither Seller nor any person or entity claiming by, through or under Seller will have, at any time or times prior to the Closing, done or suffered anything whereby any lease, lien, encumbrance, claim or right of others will be created on or against the Property or any part thereof or interest therein, except for the Permitted Exceptions.

(ii) Except as created by this Agreement, Seller has no Actual Knowledge (as hereinafter defined) of any obligations or liabilities of any kind or nature whatsoever, actual or contingent, including, but not limited to, any tax liabilities, contract liabilities or tort liabilities for which Purchaser or the Property will be liable or subject, except for non-delinquent general real estate taxes.

(iii) The Land is currently zoned M5, floodplain and shoreland under the applicable zoning ordinance.

(iv) This Agreement has been duly authorized and executed on behalf of Seller and constitutes a valid and binding agreement, enforceable in accordance with its terms.

Seller has obtained or will obtain prior to Closing all consents, releases and permissions and given all required notifications related to the transactions herein contemplated and required under any covenant, agreement, encumbrance, law or regulation to which Seller is a party or by which Seller is bound.

(v) To Seller's Actual Knowledge, there are no unsatisfied requests for repairs, restorations or improvements from any person, entity or authority, including, but not limited to, any insurance carrier or government authority. To Seller's Actual Knowledge, there are no outstanding notices or any claims of any governmental agency to the effect that the Property is in violation of any applicable law, ordinance, rule, regulation or order or that any such claim or any investigation with respect thereto is under consideration.

(vi) To Seller's Actual Knowledge, there are no leases, licenses or other occupancy agreements encumbering the Property; except for a farm lease on a year to year basis expiring on November 1, 2014.

(vii) Seller is not or will not at the Closing be in default in respect of any of its obligations or liabilities pertaining to the Property (including, but not limited to, such obligations and liabilities under the Permitted Exceptions).

(viii) To Seller's Actual Knowledge, there is no litigation pending or threatened against Seller or the Property, including, without limitation, proceedings for or involving collections, condemnation, eminent domain, annexation, alleged building code or environmental or zoning violations, or personal injuries or property damage alleged to have occurred on the Property by reason of the condition, use of, or operations on, the Property.

(ix) To Seller's Actual Knowledge, there is not presently pending, and Seller has received no notice of, a special assessment of any nature with respect to the Property or any part thereof.

(x) To Seller's Actual Knowledge, there are no pending or threatened requests, applications or proceedings to alter or restrict the zoning or other use restrictions applicable to the Property, or access to the Property, other than from Purchaser.

(xi) Seller shall cause the Village of Pleasant Prairie (the "Village") to abandon its plans for the construction of the proposed 113th Street (or any other public roadway) through the Property and shall cause the Village to provide reasonable assurance to Purchaser that no such similar construction on the Property will occur in the future that would conflict with Purchaser's proposed development. In the event that the Village moves forward with its proposed plan (or any similar proposed construction) Seller shall re-purchase the Land upon request of Purchaser, at the Purchase Price.

B. For purposes of this Agreement, Seller's "**Actual Knowledge**" shall mean written notice of a fact, condition or notice received by Seller or actual knowledge (not imputed knowledge) thereof by Seller's Executive Director, Michael R. Pollocoff (regardless of how such knowledge was obtained).

9. **Conditions Precedent to Closing.**

A. In addition to any conditions set forth in this Agreement, Purchaser's obligation to purchase the Property is and shall be conditioned on the following:

(i) The due performance by Seller of each and every covenant, undertaking and agreement to be performed by it hereunder and the truth of each representation and warranty made in this Agreement by Seller at the time as of which the same is made, and as of the Closing as if made on and as of the Closing (as same shall be deemed modified by Purchaser's Due Diligence Knowledge).

(ii) At no time prior to the Closing shall there have been commenced any proceeding or action to dissolve or otherwise revoke the authority of the Seller to act as a Community Development Authority under the laws of the State of Wisconsin.

(iii) There shall be no Unpermitted Exceptions.

(iv) Between the date of the execution of this Agreement and the Closing, Seller shall maintain the Property in good order and repair, free from waste and neglect and in compliance with applicable law; and the physical condition of the Property shall be in materially the same condition on the Closing Date as on the Effective Date, reasonable wear and tear excepted.

B. In addition to any conditions provided in other provisions of this Agreement, Seller's obligation to sell the Property is and shall be conditioned on the due performance by Purchaser of each representation and warranty made in this Agreement by Purchaser at the time as of which the same is made, and as of the Closing as if made on the Closing.

C. Either party may at any time or times, at its election, waive any of the conditions to its obligations hereunder, but any such waiver shall be effective only if memorialized in a written notice signed by such party. No such waiver shall reduce the rights or remedies of a party by reason of any breach by the other party (but if a condition is waived, the party waiving the same may not rescind this Agreement on the basis of the failure of such waived condition). In the event that for any reason any item required to be delivered to a party by the other party hereunder shall not be delivered when required, then such other party shall nevertheless remain obligated to deliver the same to the first party, and nothing (including, but not limited to, the closing of the transaction hereunder) shall be deemed a waiver by the first party of any such requirement. The failure of any of the aforesaid conditions shall entitle Seller or Purchaser, at its option, to cancel and terminate this Agreement without liability and upon such termination this Agreement shall be null and void.

10. **Covenants of Seller.** Effective as of the execution of this Agreement, Seller hereby covenants with Purchaser as follows:

A. **Service Contracts.** On or before, the date that is five (5) days prior to the Closing, Seller shall deliver to Purchaser written evidence of termination of all service contracts affecting the Property, if any, such evidence to be in form reasonably satisfactory to Purchaser.

B. **New Contracts.** Seller shall not enter into any contract with respect to the ownership, use or operation of the Property that will survive the Closing.

C. **Operation of the Property.** Seller shall maintain the Property in the same manner as existed prior to the date of this Agreement and in accordance with applicable laws, ordinances, rules

and regulations affecting the Property. Seller shall deliver the Property at Closing in substantially the same condition as it is on the Effective Date, reasonable wear and tear excepted.

D. Change In Conditions. Seller shall promptly notify Purchaser of any change in any condition with respect to the Property or of the occurrence of any event or circumstance that would render any representation or warranty of Seller to Purchaser under this Agreement untrue or misleading, or any covenant of Purchaser under this Agreement incapable or less likely of being performed, it being understood that Seller's obligation to provide such notice to Purchaser shall in no way relieve Seller of any liability for a breach by Seller of any of its representations, warranties or covenants under this Agreement.

All covenants made in this Agreement by Seller shall survive the Closing and shall not be merged into any instrument of conveyance delivered at Closing.

11. Wetlands.

A. Wetland Delineation. The Purchaser acknowledges that there are wetlands and floodplain located on a portion of the Property and that a wetland delineation report was prepared for the site and sent to the Wisconsin Department of Natural Resources (DNR). Purchaser acknowledges receiving a copy of the delineation report. Purchaser retains the right to obtain other wetland delineations and floodplain determinations during the Inspection Period

B. Wetland Permit Requirements. Purchaser acknowledges that wetland fill permits will be required from the DNR and the U.S. Army Corps of Engineers (Corps) to place fill in any of the delineated wetland areas, and that local setbacks may apply to delineated wetland areas.

C. Wetland Permit Application. Upon closing, Purchaser shall apply for all applicable wetland fill permits from the DNR and the Corps. Seller shall assist Purchaser and shall provide a credit against the Purchase Price for wetland permitting in the amount of \$25,000. Seller shall, at its option, provide or pay the cost of any wetland mitigation in an amount not to exceed \$120,000 that is required to obtain such permits. If Purchaser is not able to procure such permits within 210 days of the Closing, Seller agrees to re-purchase the Land upon request of Purchaser, at the Purchase Price. Any such repurchase will be without interest and subject to Purchaser not having created any liens or caused any environmental or other damage to the Property. Seller shall not be liable for any additional costs, consequential or other damages if permits are not obtained within the time set forth above.

12. Deed Restriction and Lien. The Warranty Deed for the transfer of the Property will contain the following deed restriction:

"DEED RESTRICTION AND LIEN: A major consideration for the Granter selling the Property to Grantee is Grantee's promise to develop the Property and build office facilities of at least 100,000 square feet on the Property (the "**Proposed Facility**") within a reasonable time after the execution of this Deed. The potential net general real estate taxes to be paid to the Village of Pleasant Prairie following the construction of the Proposed Facility are a critical component of the sale of the Property to the Grantee. Therefore, the Grantee, for itself, its successors and assigns, and all future owners of the Property, agrees as follows:

A. For the calendar years ending on December 31, 2018, 2019, 2020, 2021, 2022, 2023, 2024, and 2025 the owner of the Property shall pay to the Village of Pleasant Prairie the difference each year between \$400,000.00, which is the estimated property tax on the land and Proposed Facility, and the actual net general real estate taxes for the Property for such calendar year. No credit shall be provided to the owner if the actual net general real estate taxes for the Property exceed \$400,000 in

any such year. Said amount shall be paid to the Village of Pleasant Prairie within sixty (60) days after the end of the calendar year for which said amount is due and payable. Any amounts not paid timely shall accrue interest at the rate of eighteen percent (18%) per annum until paid.

B. Any amounts owed by the owner of the Property to the Village of Pleasant Prairie under the terms of this Deed Restriction shall be a first lien against the Property, and all obligations of the owner of the Property to the Village of Pleasant Prairie under this Deed Restriction is secured by the Property as a lien and a special assessment under Wisconsin Statutes § 66.0703. The lien provided herein may be specially assessed against the Property at any time by the Village of Pleasant Prairie. Whether said amount is specially assessed against the Property, or is just owed to the Village of Pleasant Prairie under this Deed Restriction, it shall be a lien against the Property which is prior and superior to any other liens against the Property.

C. In the event the owner of the Property defaults in its obligations to make the payments to the Village of Pleasant Prairie described in this Deed Restriction, or any special assessment under this Deed Restriction in favor of the Village of Pleasant Prairie, the owner of the Property agrees to pay the reasonable actual attorneys' fees and all costs incurred by the Village of Pleasant Prairie to collect any amounts due under this Deed Restriction or any related special assessment.

D. The Grantor retains a one-time option to re-purchase the Property after a period of five (5) years following the date of this Deed, if the Grantee, its successors, assigns or future owners of the Property (1) have not obtained a building permit and commenced construction on the Proposed Facility within five (5) years following that date of this Deed, or (2) have not substantially completed construction of the Proposed Facility and obtained an occupancy permit for occupancy of the Proposed Facility by December 31, 2020. In such event, Grantor may, by written notice to the then-owner of the Property, exercise an option to purchase the Property for a sales price of \$4,372,515.00 (the same price Grantor sold the Property to the Grantee) any such notice must be delivered by Grantor to the then-owner of the Property no later than seven (7) years from the date of this Deed. If the option in favor of the Grantor is exercised, at a closing the then-owner of the Property shall deliver to the Grantor a warranty deed, title insurance policy in the full amount of the purchase price, gap insurance, and other requirements as stated in the Purchase and Sale Agreement entered into between Grantor and Grantee prior to this Deed. Any such sale to the Grantor shall close within sixty (60) days after the exercise of the option by Grantor and the Grantor shall provide the then-owner of the Property with at least fifteen (15) days prior written notice of the date, time, and place of closing. In addition, the architecture and design of all buildings and improvements to be built on the Property shall be subject to all Village of Pleasant Prairie zoning ordinances.

E. The terms of this Deed Restriction are deemed severable and, if any portion of this Deed Restriction is deemed unenforceable by a court of competent jurisdiction, such unenforceability shall not affect any other portion of this Deed Restriction. This Deed Restriction shall be construed and enforced in accordance with the laws of the State of Wisconsin. Exclusive jurisdiction and venue for any legal action under this Deed Restriction shall be in Kenosha County, Wisconsin, even if another venue is more convenient for any parties or witnesses."

13. **Property Owner's Association.** Purchaser acknowledges that the Property will be subject to the Prairiewood Owner's Association ("Association"). Both parties agree to cooperate in amending the governing documents of the Association so that the Property is included in the area governed by the Association. The transfer of the Property to Purchaser will be subject to the Association rules, regulations, and bylaws.

14. **Adjustments.**

A. **General.** All prorations shall be as of 11:59 p.m. on the day prior to the Closing Date (“**Proration Date**”). There shall be no assumption of insurance coverage by Purchaser.

B. **Taxes.** Seller shall pay all taxes and assessments on the Property then due and payable or overdue, as of the Closing Date, including, without limitation, all special assessments. For taxes and assessments not due and payable as of the Closing Date, and for taxes and assessments on the Property for the tax year in which the Closing occurs, such taxes and assessments shall be prorated on an accrual basis as of the Closing Date based upon 110% the most recent ascertainable assessed valuation, tax multiples and tax rate. Seller shall be liable for any back tax bill which may be imposed by taxing authorities related to the period prior to the Closing Date, which obligation of Seller shall survive Closing.

C. **Other Prorations.** Such additional adjustments as are normally made in connection with a purchase and sale of the type contemplated hereunder shall be made between Seller and Purchaser as of the Proration Date. All apportionments shall be made in accordance with customary practice in the County in which the Property is located. The parties agree to cause a schedule of tentative adjustments to be prepared prior to the Closing Date. Such adjustments, if and to the extent known and agreed upon as of the Closing Date, shall be paid by Purchaser to Seller (if the prorations result in a net credit to the Seller) or by Seller to Purchaser (if the prorations result in a net credit to Purchaser), by increasing or reducing the amount to be paid by Purchaser at Closing. Purchaser and Seller agree the intent of this provision is to allocate the income and expenses attributable to the Property in a fair, just and equitable manner, and the parties agree in the event of special circumstances not specifically covered herein, such equitable principles shall guide the parties in reaching a fair resolution.

15. **Closing Costs.**

A. Seller shall bear the cost of the Title Policy, the cost to record any instruments necessary to clear Seller’s title, one-half the cost of the Closing Escrow and “GAP Coverage” closing fee, and all state and county transfer taxes. Seller shall reimburse Purchaser for the cost of the Title Commitment and Title Documents.

B. Purchaser shall bear the cost of the Survey, any recording fees with respect to the Deed, the costs for any title insurance endorsements and one-half the cost of the Closing Escrow and “GAP Coverage” closing fee.

C. The cost of any municipal transfer taxes applicable to this transaction shall be paid for by the party made responsible for the payment of the same by the applicable ordinance with respect thereto. All other costs and expenses in connection with the transaction contemplated by this Agreement shall be borne by Purchaser and Seller in the manner in which such cost and expenses are customarily allocated between the parties at closings of real property similar to the Property in the County in which the Land is located. Except as provided in Section 31 below, each party hereto shall pay its own attorneys’ fees incurred with respect to the preparation and negotiation of this Agreement and the closing of the transaction contemplated hereby.

16. **Condemnation.** In the event that between the date of this Agreement and the date of Closing any condemnation or eminent domain proceedings are initiated which might result in the taking of any part of the Property, Purchaser, at its sole option, may elect to terminate this Agreement without costs, obligation or liability on the part of Purchaser, in which event all rights and obligations of the parties hereunder shall cease. In the event Purchaser elects not to so terminate this Agreement, Seller shall assign to Purchaser at Closing all

of Seller's title and interest in and to any award pertaining to the Property made in connection with such condemnation or eminent domain proceedings. Purchaser shall notify Seller within thirty (30) days after it receives notice of such condemnation or eminent domain proceedings whether it elects to exercise its right to terminate. If Purchaser fails to notify Seller of its election within said 30-day period, such failure shall constitute an election to terminate this Agreement aforesaid. Closing shall be adjusted to allow for such election.

17. **Remedies.**

A. If Seller should be in material breach any of its covenants, conditions, representations or warranties contained in this Agreement or should fail to consummate the sale contemplated herein for any reason other than Purchaser's default, Purchaser may, upon five (5) days written notice to Seller, if such breach or failure is not cured within such five-day period, in addition to all remedies contained elsewhere in this Agreement: (i) terminate this Agreement and receive the Earnest Money from the Seller and collect out-of-pocket expenses incurred in connection with the transaction contemplated by this Agreement; or (ii) enforce specific performance of this Agreement of the obligations of Seller hereunder.

B. If Purchaser should be in material breach any of its covenants contained in this Agreement (and Seller shall not be in default hereunder), Seller may, upon five (5) days written notice to Purchaser, if such breach is not cured within such five-day period, terminate this Agreement without further liability on Seller's part and retain the Earnest Money as liquidated damages, and not as a penalty, it being understood that Seller's actual damages in the event of such a default are difficult to ascertain and that such Earnest Money represents the parties' best estimate of such damages. Seller shall not have any other remedy for any default by Purchaser.

18. **Brokers.** The parties mutually warrant and represent to the other that neither has authorized any real estate broker or real estate salesperson to represent it or to act on its behalf in respect of this Agreement or the transactions contemplated hereby, and that neither has dealt with a real estate broker or real estate salesperson in connection herewith. Each party shall indemnify and save the other party harmless from any breach of the foregoing warranty and representation.

19. **Environmental Matters.**

A. The term "**Hazardous Materials**" shall mean any substance, material, waste, gas or particulate matter which is regulated by any local governmental authority, the State of Wisconsin, or the United States Government, including, but not limited to, any material or substance which is (i) defined as a "hazardous waste," "hazardous material," "hazardous substance," "extremely hazardous waste," or "restricted hazardous waste" under any provision of Wisconsin law, (ii) petroleum, (iii) asbestos, (iv) polychlorinated biphenyl, (v) radioactive material, (vi) designated as a "hazardous substance" pursuant to Section 311 of the Clean Water Act, 33 U.S.C. 1251 et seq., (33 U.S.C. 1317), (vii) defined as a "hazardous waste" pursuant to Section 1004 of the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq. (42 U.S.C. 6903), or (viii) defined as a "hazardous substance" pursuant to Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601 et seq. (42 U.S.C. 9601), or as any may be amended. The term "**Environmental Laws**" shall mean all statutes specifically described in the foregoing sentence and all federal, state and local environmental, health and safety statutes, ordinances, codes, rules, regulations, orders and decrees regulating, relating to or imposing liability or standards concerning or in connection with Hazardous Materials.

B. Seller represents and warrants that, to Seller's Actual Knowledge, as of the Effective Date (which representation and warranty shall be remade as of the Closing Date): (i) no notice,

demand, claim or other communication has been given to or served on Seller, and Seller has no knowledge of any such notice given to previous owners or tenants of the Property, from any entity, governmental body or individual claiming any violation of any Environmental Law or demanding payment, contribution, indemnification, remedial action, removal action or any other action or inaction with respect to any actual or alleged environmental damage or injury to persons, property or natural resources (any of the foregoing, whether now existing or hereafter brought, is herein called a "**Claim**");(ii) no above ground or underground storage tanks are currently located on the Property; ""(iii) no investigation, administrative order, administrative order by consent, consent order, agreement, litigation or settlement is proposed or in existence or, to the best knowledge of Seller, threatened or anticipated, with respect to or arising from the presence of any Hazardous Material or the transport of Hazardous Material with respect to the Property. If any such representation is in any manner inaccurate or any such warranty is in any matter breached (collectively, "**Breach**"), and if such Breach gives rise to or results in liability (including, but not limited to, a response action, remedial action or removal action) under any Environmental Laws or any existing common law theory based on nuisance or strict liability, or causes a significant effect on public health, Seller shall promptly take any and all remedial and removal action as required by law to clean up the Property, mitigate exposure to liability arising from, and keep the Property free of any lien imposed pursuant to, any Environmental Laws as a result of such Breach.

C. Additionally, but not in lieu of Seller's affirmative undertakings set forth in Section 19.B, above, Seller agrees to reimburse Purchaser for reasonable attorneys' fees and expenses, consultants' fees and expenses, and court costs suffered or incurred by Purchaser as a result of any Breach.

20. **Non-Foreign Certificate.** Seller shall provide Purchaser, on or before the Closing Date, with a non-foreign certificate sufficient in form and substance to relieve Purchaser of any and all withholding obligations under federal law, which certificate shall be reasonably satisfactory to Purchaser and the Title Company. In the event that Seller does not furnish Purchaser with said certificate, or if Purchaser has reason to believe that said certificate would be wholly or partially false if given and so notifies Seller, in writing, on or before the Closing Date, Purchaser shall be entitled to withhold up to ten (10%) percent of the Purchase Price in an escrow account to be held by Title Company until such time as Seller furnishes Purchaser with a qualifying statement from the Internal Revenue Service sufficient to relieve Purchaser of any and all withholding obligations under federal law, or until Purchaser is required to deliver said funds to the Internal Revenue Service, whichever first occurs.

21. **Modifications.** No modification, amendment, discharge or change of this Agreement, except as otherwise provided herein, shall be valid unless the same is in writing and signed by the party against which the enforcement of such modification, amendment, discharge or change is sought.

22. **Governing Law and Interpretation.** The validity, meaning and effect of this Agreement shall be determined in accordance with the laws of the State of Wisconsin applicable to contracts made and to be performed in that state. The terms "**hereby**," "**hereof**," "**hereto**," "**herein**," "**hereunder**" and any similar terms shall refer to this Agreement, and the term "**hereafter**" shall mean after, and the term "**heretofore**" shall mean before, the date of this Agreement. Words of the masculine, feminine or neuter gender shall mean and include the correlative words of other genders, and the words importing the singular number shall mean and include the plural number and vice versa. Words importing persons shall include firms, associations, partnerships (including limited partnerships), trusts, corporations and other legal entities, including public bodies, as well as natural persons. The terms "**include**," "**including**" and similar terms shall be construed as if followed by the phrase "without being limited to."

23. **Survival.** All representations, warranties and indemnities of the parties hereto contained in this Agreement or in any of the documents to be delivered by a party to the other party at Closing shall be deemed remade as of the date of Closing and survive the Closing. This Agreement shall not be canceled or merged into the Deed on the Closing. Subsequent to Closing, each party agrees to defend, indemnify and hold the other party free and harmless from and against any losses, damages, costs or expenses (including attorneys' fees) resulting from (i) any inaccuracy in or breach of any representation or warranty of a party; and (ii) any breach or default by a party under any of such party's covenants or agreements under this Agreement, provided that, if the other party has prior actual knowledge of a breach at or prior to Closing, upon consummation of the purchase and sale, such other party shall be deemed to have waived such breach.

24. **Notices.** All notices, demands, requests and other communications under this Agreement shall be in writing and shall be deemed properly served (i) on the date sent, if delivered by hand to the recipient; (ii) on the first business day that follows the date such notice is deposited with an overnight delivery service addressed as hereinafter set forth; or (iii) on the date sent electronically by email, if delivered via the email addresses hereinafter set forth, with a hard copy to follow by overnight delivery service.

If intended for Purchaser:

Route 165, LLC
c/o Phillip D. Hunt
Uline, Inc.
12575 Uline Drive
Pleasant Prairie, Wisconsin 53158
Email: phunt@uline.com

With a copy to:

Laurence A. Barry
Senior Corporate Counsel
Uline, Inc.
12575 Uline Drive
Pleasant Prairie, Wisconsin 53158
Email: lbarry@uline.com

If intended for Seller:

Michael R. Pollocoff, Executive Director
Village of Pleasant Prairie Community Development Authority
9915 - 39th Avenue
Pleasant Prairie, Wisconsin 53158
Email: mpollocoff@plprairiewi.com

With a copy to:

Timothy J. Geraghty
Godin Geraghty Puntillo Camilli, SC
6301 Green Bay Road
Kenosha, WI 53142
Email: tgeraghty@ggplawyers.com

or such other address or to such other party which any party entitled to receive notice hereunder designates to the others in writing by a notice duly given hereunder.

25. **Entire Agreement.** It is understood and agreed that all understandings and agreements heretofore made between the parties are merged in this Agreement, the exhibits annexed hereto and the instruments and documents referred to herein, which alone fully and completely express their agreements, and that neither party is relying upon any statement or representation, not embodied in this Agreement, made by the other. Each party expressly acknowledges that, except as expressly provided in this Agreement, the other party and the agents and representatives of the other party have not made, and the other party is not liable for or bound in any manner by, any express or implied warranties, guaranties, promises, statements, inducements, representations or information pertaining to the transactions contemplated hereby. The preparation of this Agreement has been a joint effort of the parties hereto and the resulting documents shall not, solely as a matter of judicial construction, be construed more severely against one of the parties than the other.

26. **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

27. **Captions.** The captions in this Agreement are inserted for convenience of reference only and in no way define, describe or limit the scope or intent of this Agreement of any of the provisions thereof.

28. **Binding Effect.** This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

29. **Partial Invalidity.** Seller and Purchaser intend and believe that each provision in this Agreement comports with all applicable local, state and federal laws and judicial decisions. However, if any provision or provisions in this Agreement which is or are not materially related to the liability of the parties hereto or to the conditions to Purchaser's obligations to consummate the transaction contemplated herein is found by a court of law to be in violation of any applicable local, state or federal ordinance, statute, law, administrative or judicial decision, or public policy, and if such court should declare such portion, provision or provisions of this Agreement to be illegal, invalid, unlawful, void or unenforceable as written, then it is the intent both of Seller and Purchaser that such portion, provision or provisions shall be given force to the fullest possible extent that they are legal, valid and enforceable, that the remainder of this Agreement shall be construed as if such illegal, invalid, unlawful, void or unenforceable portion, provision or provisions were not contained therein, and that the rights, obligations and interest of Purchaser and Seller under the remainder of this Agreement shall continue in full force and effect. If any provision or provisions which is or are material as set forth above are found to be illegal, invalid, unlawful, void or unenforceable as written, this Agreement may, at the option of either party, be terminated without further obligation to either party.

30. **Time for Performance.** Time is of the essence of this Agreement. Whenever under the terms of this Agreement the time for performance falls on a Saturday, Sunday or National or State Bank Holiday in the State of Wisconsin, such time for performance shall be on the next day that is not a Saturday, Sunday or National or State Bank Holiday in the State of Wisconsin. In computing any period of time pursuant to this Agreement, the day of the act or event from which the designated period of time begins to run will not be included.

31. **Professional Fees.** In the event of the bringing of any action or suit by a party hereto against another party hereunder by reason of any breach of any of the covenants, agreements or provisions on the part of the other party rising out of this Agreement, then in that event the prevailing party shall be entitled to have and recover of and from the other party all reasonable and necessary costs and expenses of the action or suit, including actual attorneys' fees, accounting and engineering fees, and any other professional fees resulting therefrom.

32. **Possession.** Possession of the Property shall be delivered to Purchaser on the Closing Date.


33. **No Assumption of Liabilities.** Upon the Closing, Purchaser shall neither assume nor undertake to pay, satisfy or discharge any liabilities, obligations or commitments of Seller and shall not assume or discharge any debts, obligations, liabilities or commitments of Seller, whether accrued now or hereafter, fixed or contingent, known or unknown, other than those specifically agreed to between the parties and set forth in this Agreement.

**REMAINDER OF PAGE INTENTIONALLY LEFT BLANK;
SIGNATURE PAGE FOLLOWS.**

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

PURCHASER:

ROUTE 165 LLC, a Wisconsin Limited Liability Company

By: 
Phillip D. Hunt
Executive Vice President

SELLER:

**VILLAGE OF PLEASANT PRAIRIE
COMMUNITY DEVELOPMENT AUTHORITY**

By: 
Michael R. Pollocoff
Executive Director

SCHEDULE OF EXHIBITS

- EXHIBIT "A" - Legal Description**
- EXHIBIT "B" - Permitted Exceptions**
- EXHIBIT "C" - Seller's Certificate Re-affirming Representations and Warranties**

EXHIBIT "A"

LEGAL DESCRIPTION

PARCEL A (91-4-121-254-0122)

PARCEL B (91-4-121-254-0401)

PARCEL C (91-4-121-254-0406)

ADDRESS: Approximately 38 acres of land along west side of 120th Ave., Village of Pleasant Prairie, Wisconsin.

See attached.

PARCEL A:

Part of the Southeast Quarter of Section 25, Town 1 North, Range 21 East of the Fourth Principal Meridian, and more particularly described as follows: Beginning on the North line of said Quarter Section at a point on the West line of Interstate Highway "94", 281.97 feet West from the Northeast corner of said Quarter Section; thence South along the West line of Highway, 200 feet; thence West parallel to the North line of said Quarter Section, 455 feet; thence North parallel to the West line of said Highway, 200 feet to the North line of said Quarter Section; thence East along and upon the North line of said Quarter Section, 455 feet to the point of beginning. Said land lying and being in the Village of Pleasant Prairie, County of Kenosha and State of Wisconsin.

AND

Lots 1 and 2 of Certified Survey Map No. 1281, recorded in the Kenosha County Register of Deeds office on July 21, 1989 in Volume 1358, Page 670, as Document No. 824523, being part of the Southeast Quarter of Section 25, Town 1 North, Range 21 East of the Fourth Principal Meridian. Said land lying and being in the Village of Pleasant Prairie, County of Kenosha and State of Wisconsin.

AND

Beginning at a point 281.97 feet West and 400 feet South of the Northeast corner of the North Half of the Southeast Quarter of Section 25, Town 1 North, Range 21 East of the Fourth Principal Meridian; thence West parallel to the North line of said Quarter Section, 300 feet; thence South 2°03' East 100 feet; thence East parallel to the North line of said Quarter Section a distance of 300 feet; thence North 2°03' West 100 feet to the point of beginning. Said land lying and being in the Village of Pleasant Prairie, County of Kenosha and State of Wisconsin.

AND

Part of the Southeast Quarter of Section 25, Town 1 North, Range 21 East of the Fourth Principal Meridian, and being more particularly described as follows: Beginning on the North line of said Quarter Section at a point on the West line of Interstate Highway "94", 281.97 feet West from the Northeast corner of said Quarter Section; thence South along the West line of Highway, 500 feet to the point of beginning of the property to be herein described; thence West parallel to the North line of said Quarter Section, 1043.5 feet to the West line of the Northeast Quarter of said Quarter Section; thence South along said West line 625.86 feet; thence East parallel to the South line of the Northeast Quarter of said Quarter Section, 1043.0 feet to the West line of the aforesaid Highway; thence North along said West line, 630.32 feet to the point of beginning. Said land lying and being in the Village of Pleasant Prairie, County of Kenosha and State of Wisconsin.

AND

Part of the North Half of the Southeast Quarter of Section 25, Town 1 North, Range 21 East of the Fourth Principal Meridian, and being more particularly described as follows: Commence at a point 281.97 feet West of the East Quarter corner of said Section; thence South 2°03' East 1330.32 feet to the point of beginning; thence West 300 feet; thence North 2°03' West 200 feet; thence East 300 feet; thence South 2°03' East to the point of beginning. Said land lying and being in the Village of Pleasant Prairie, County of Kenosha and State of Wisconsin.

-CONTINUED-

LEGAL DESCRIPTION CONTINUED:

Part of the Southeast Quarter of Section 25, Town 1 North, Range 21 East of the Fourth Principal Meridian, and being more particularly described as follows: Beginning on the North line of said Quarter Section at a point on the West line of Interstate Highway "94", 281.97 feet West from the Northeast corner of said Quarter Section; thence South along the West line of said Highway, 1130.32 feet to a point 200 feet North from the South line of the Northeast Quarter of said Quarter Section; thence West parallel to said South line 300 feet to the point of beginning of the property to be herein described; thence continuing West along the same course 743.0 feet to the West line of the Northeast Quarter of said Quarter Section; thence South along said West line 200.0 feet to the Southwest corner of the Northeast Quarter of said Quarter Section; thence East along the South line of the Northeast Quarter of said Quarter Section, 742.84 feet to a point, 300.00 feet West from the West line of aforesaid Highway; thence North parallel to said West line, 200.0 feet to the point of beginning. Said land lying and being in the Village of Pleasant Prairie, County of Kenosha and State of Wisconsin.

EXCEPTING THEREFROM those lands contained in Quit Claim Deed dated June 19, 2008 and recorded in the Kenosha County Register of Deeds office on June 24, 2008 as Document No. 1560939.

EXCEPTING THEREFROM those lands contained in Quit Claim Deed dated February 2, 2010 and recorded in the Kenosha County Register of Deeds office on February 3, 2010 as Document No. 1610345.

NOTE: Address: 11000 120th Avenue
Tax Key No.: 91-4-121-254-0122

PARCEL B:

Parcel B in Certified Survey Map No. 603, recorded in the Kenosha County Register of Deeds office on September 14, 1978 in Volume 1029 of Records, Page 82, as Document No. 641614, being part of the Southeast Quarter of the Southeast Quarter of Section 25, Town 1 North, Range 21 East of the Fourth Principal Meridian. Said land lying and being in the Village of Pleasant Prairie, County of Kenosha and State of Wisconsin.

NOTE: Address: 120th Avenue
Tax Key No.: 91-4-121-254-0401 (New)
37-4-121-254-0400 (Old)

PARCEL C:

Parcel A in Certified Survey Map No. 603, recorded in the Kenosha County Register of Deeds office on September 14, 1978 in Volume 1029 of Records, Page 82, as Document No. 641614, being part of the Southeast Quarter of the Southeast Quarter of Section 25, Town 1 North, Range 21 East of the Fourth Principal Meridian. Said land lying and being in the Village of Pleasant Prairie, County of Kenosha and State of Wisconsin.

NOTE: Address: 120th Avenue
Tax Key No.: 91-4-121-254-0406 (New)
37-4-121-254-0405 (Old)

EXHIBIT "B"

PERMITTED EXCEPTIONS

[To be completed in accordance with Section 5.D. of this Agreement]

EXHIBIT "C"

RE-AFFIRMATION OF REPRESENTATIONS AND WARRANTIES

THIS REAFFIRMATION OF REPRESENTATIONS AND WARRANTIES ("Re-Affirmation") is made as of this ____ day of _____, 2014 by **Village of Pleasant Prairie Community Development Authority ("Seller")**.

WITNESSETH:

WHEREAS, that certain Purchase Agreement dated as of _____, 2014 ("**Contract**") was entered into between Seller and **ROUTE 165, LLC, a Wisconsin limited liability company**, as purchaser ("**Purchaser**"), pertaining to the purchase and sale of the property legally described on Exhibit A thereto ("**Property**"); and

WHEREAS, as a condition to the closing of the transaction contemplated under the Contract, Seller is required to execute and deliver this Re-Affirmation.

NOW, THEREFORE, for consideration paid, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Seller hereby certifies to Purchaser that all of the representations and warranties made by Seller pursuant to the Contract are true and correct as of the date hereof and are reaffirmed and remade as of the date hereof to Purchaser by Seller, except as shown on **Schedule "A"** attached hereto and made a part hereof. This Affirmation has been delivered by Seller to Purchaser pursuant to the terms of the Contract and nothing herein contained is intended to modify the terms of the Contract.

IN WITNESS WHEREOF, Seller has executed and delivered this Re-Affirmation as of the day and year first above written.

**VILLAGE OF PLEASANT PRAIRIE
COMMUNITY DEVELOPMENT AUTHORITY**

By: _____
Michael R. Pollocoff
Executive Director

Schedules

Schedule A – Exceptions to Representations and Warranties

EXHIBIT C
Intentionally Omitted

EXHIBIT D
Easements

See Attached

CHAPUT LAND SURVEYS LLC

March 17, 2016

DEDICATED STORM WATER DRAINAGE, ACCESS AND MAINTENANCE EASEMENT

Dedicated storm water drainage, access and maintenance easement, being a part of Lots 1 and 2 on Certified Survey Map No. 1281 and all of Parcel A and B Certified Survey No. 603 in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin which is bounded and described as follows:

Commencing at the East 1/4 corner of said Section 25; thence South 88°50'24" West along the North line of the Southeast 1/4 Section 337.05 feet to the West line of 120th avenue (West Frontage Road); thence South 02°12'00" East along said West line 1083.95 feet to the point of beginning of lands hereinafter described; thence continuing South 02°12'00" East along said West line 36.27 feet to a point; thence South 82°19'18" West 201.20 feet to a point; thence South 82°38'42" West 35.09 feet to a point; thence South 84°29'09" West 89.22 feet to a point; thence South 87°50'24" West 102.13 feet to a point; thence Westerly 96.04 feet along an arc of a curve, whose center lies to the North, whose radius is 1931.00 feet, and whose chord bears North 88°50'47" West 96.03 feet to a point; thence North 79°25'01" West 82.86 feet to a point; thence North 84°04'16" West 131.47 feet to a point; thence Northwesterly 49.94 feet along an arc of a curve, whose center lies to the North, whose radius is 75.00 feet, and whose chord bears North 64°59'41" West 49.02 feet to a point; thence Northwesterly 98.75 feet along an arc of a curve, whose center lies to the Northeast, whose radius is 293.00 feet, and whose chord bears North 35°33'10" West 98.28 feet to a point; thence North 69°02'56" East 31.50 feet to a point; thence South 31°39'43" East 45.53 feet to a point; thence South 40°24'39" East 31.83 feet to a point; thence Southeasterly 38.10 feet along an arc of a curve, whose center lies to the Northeast, whose radius is 50.00 feet, and whose chord bears South 62°14'16" East 37.18 feet to a point; thence South 84°03'53" East 130.81 feet to a point; thence South 79°25'01" East 89.52 feet to a point; thence South 88°55'34" East 81.15 feet to a point; thence North 87°50'24" East 103.77 feet to a point; thence North 84°29'09" East 87.81 feet to a point; thence North 82°38'42" East 34.12 feet to a point; thence North 80°53'47" East 205.03 feet to the point of beginning.

Containing 27,765 square feet or 0.6374 acres.

CHAPUT LAND SURVEYS LLC

DEDICATED 60' PUBLIC SANITARY SEWER AND PUBLIC WATER MAIN, ACCESS AND MAINTENANCE EASEMENT

That part of Lots 1 and 2 on Certified Survey Map No. 1281 and all of Parcel A and B Certified Survey No. 603 in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin which is bounded and described as follows:

Commencing at the East 1/4 corner of said Section 25; thence South 88°50'24" West along the North line of the Southeast 1/4 Section 337.05 feet to the West line of 120th avenue (West Frontage Road); thence South 02°12'00" East along said West line 167.59 feet and the point of beginning of the easement hereinafter described; thence continuing along said West line South 02°12'00" East 60.01 feet to a point; thence South 88°49'45" West 49.33 feet to a point; thence South 01°10'15" East 21.50 feet to a point; thence South 88°49'45" West 20.00 feet to a point; thence North 01°10'15" West 21.50 feet to a point; thence South 88°49'45" West 165.77 feet to a point; thence South 01°10'15" East 9.00 feet to a point; thence South 88°49'45" West 20.00 feet to a point; thence North 01°10'15" West 9.00 feet to a point; South 88°49'45" West 517.99 feet to a point; thence South 01°10'15" East 9.50 feet to a point; thence South 88°49'45" West 20.00 feet to a point; thence North 01°10'15" West 9.50 feet to a point; thence South 88°49'45" West 193.73 feet to a point; thence North 02°06'00" West 60.01 feet to a point; thence North 88°49'45" East 986.71 feet to the point of beginning.

Containing 60,007 square feet or 1.3776 acres.

October 2, 2015

DEDICATED STORM WATER DRAINAGE, RETENTION BASIN, ACCESS AND MAINTENANCE EASEMENT

That part of Lots 1 and 2 on Certified Survey Map No. 1281 and all of Parcel A and B Certified Survey No. 603 in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin which is bounded and described as follows:

Commencing at the East 1/4 corner of said Section 25; thence South 88°50'24" West along the North line of the Southeast 1/4 Section 337.05 feet to the West line of 120th avenue (West Frontage Road); thence South 02°12'00" East along said West line 471.47 feet to a point; thence South 87°48'00" West 121.00 feet to a point; thence South 02°12'00" East 36.94 to the point of beginning of the easement hereinafter described; thence South 02°12'00" East 145.24 feet to a point; thence Southwesterly 264.48 feet along an arc of a curve, whose center lies to the Northwest, whose radius is 433.00 feet and whose chord bears South 75°55'39" West 260.39 feet to a point; thence Northerly 370.88 feet along an arc of a curve, whose center lies East, whose radius is 128.00 feet, and whose chord bears North 00°47'03" East 254.10 feet to a point; thence Southeasterly 251.27 feet along an arc of a curve, whose center lies to the Southwest, whose radius is 433.00 feet and whose chord bears South 79°23'20" East 247.76 feet to the point of beginning. Containing 77,774 square feet or 1.7854 acres.

ALSO,

That part of Lots 1 and 2 on Certified Survey Map No. 1281 and all of Parcel A and B Certified Survey No. 603 in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin which is bounded and described as follows:

Commencing at the East 1/4 corner of said Section 25; thence South 88°50'24" West along the North line of the Southeast 1/4 Section 1323.47 feet to a point; thence South 02°12'00" East 853.27 feet to the point of beginning of lands hereinafter described; thence North 87°54'00" East 130.75 feet to a point; thence Southerly 29.84 feet along an arc of a curve, whose center lies to the West, whose radius is 119.00 feet and whose chord bears South 05°56'42" East 29.76 feet to a point; thence Southeasterly 138.76 feet along an arc of a curve, whose center lies to the Northeast, whose radius is 293.00 feet and whose chord bears South 12°19'48" East 137.47 feet to a point; thence Southeasterly 98.75 feet along an arc of a curve, whose center lies to the Northeast, whose radius is 293.00 feet and whose chord bears South 35°33'10" East 98.28 feet to a point; thence Southeasterly 19.16 feet along an arc of a curve, whose center lies to the Northeast, whose radius is 75.00 feet and whose chord bears South 53°14'19" East 19.11 feet to a point; thence South 01°47'30" East 87.47 feet to a point; thence South 87°54'00" West 225.75 feet to a point; thence North 02°06'00" West 346.43 feet to the point of beginning. Containing 60,007 square feet or 1.3776 acres.

ALSO,

CHAPUT LAND SURVEYS LLC

That part of Lots 1 and 2 on Certified Survey Map No. 1281 and all of Parcel A and B Certified Survey No. 603 in that part of the Northeast 1/4 and Southeast 1/4 of the Southeast 1/4 of Section 25, Township 1 North, Range 21 East of the fourth Principal Meridian, located in the Village of Pleasant Prairie, Kenosha County, Wisconsin which is bounded and described as follows:

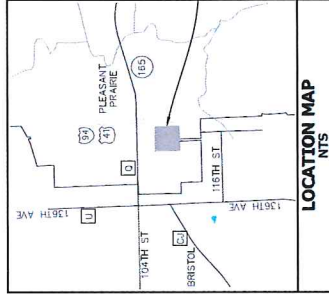
Commencing at the East 1/4 corner of said Section 25; thence South $88^{\circ}50'24''$ West along the North line of the Southeast 1/4 Section 337.05 feet to the West line of 120th avenue (West Frontage Road); thence South $02^{\circ}12'00''$ East along said West line 1083.95 feet to a point; thence South $02^{\circ}12'00''$ East 36.27 feet to a point thence South $82^{\circ}19'18''$ West 96.78 feet to the point of beginning of lands hereinafter described; thence South 169.90 feet to a point; thence West 286.34 feet to a point; thence North 140.65 feet to a point; thence North $87^{\circ}50'24''$ East 59.29 feet to a point; thence North $84^{\circ}29'09''$ East 89.22 feet to a point; thence North $82^{\circ}38'42''$ East 35.09 feet to a point; thence North $82^{\circ}19'18''$ East 104.42 feet to the point of beginning. Containing 43,678 square feet or 1.0027 acres.

EXHIBIT E
Construction Plans

See Attached

ONSITE CIVIL ENGINEERING INFRASTRUCTURE PLANS FOR H2 FACILITY AT ULINE CORPORATE CAMPUS PLEASANT PRAIRIE, WISCONSIN

PLANS PREPARED FOR
ROUTE 165, LLC
12575 ULINE DRIVE
PLEASANT PRAIRIE, WI 53158



EXISTING	PROPOSED
SANITARY MAIN/PIPE	STORM MAIN/PIPE
CATCH BASIN	INLET
PROJECT-RELATED SECTION	EXISTING MAIN/PIPE
VALVE BOX	VALVE BOX
FIRE HYDRANT	BUFFALO BOX
CLEAMOUT	SANITARY SEWER
STORM SEWER	DRAIN TILE
WATER MAIN	UTILITY CROSSING
GRANULAR TRENCH BACKFILL	LIGHTING
ELECTRICAL CHALE	TRANSFORMER
POWER POLE	POWER POLE WITH LIGHT
GUY WIRE	GUY WIRE
TELEPHONE LINE	CONTROL
SPOT ELEVATION	VERTICAL CURVE
VERTICAL CURVE	FLOODWAY
HOB (WATER LEVEL) (WAL)	NORMAL WATER LEVEL (NWL)
DIRECTION OF SURFACE FLOW	OTED OR SWALE
DIVERSION SWALE	OVERFLOW RELIEF ROUTING
SOIL BANK	TOPSOIL PROBE
FENCE LINE, TEMPORARY BILT	FENCE LINE, WIRE
FENCE LINE, CHAIN LINK OR IRON	FENCE LINE, WOOD OR PLASTIC
CURB AND GUTTER	DEPRESSED CURB
REVERSE PITCH CURB & GUTTER	ESCAPEMENT LINE

ABBREVIATIONS	
BL	BASE LINE
C&G	CURB AND GUTTER
CI	CONCRETE
CP	CONCRETE PAVEMENT
CR	CURB
FC	FINISHED GRADE
FL	FLOOR PLAN
FM	FLOODWAY
FW	FLOODWAY
HW	HIGH WATER LEVEL
HW	HIGH WATER LEVEL
HW	HIGH WATER LEVEL
NWL	NORMAL WATER LEVEL
PC	POINT OF CURVE

LEGEND
POINT OF VERTICAL INTERSECTION
RIGHT-OF-WAY
STORM SEWER
TOP OF BANK
TOP OF CURB
TOP OF FINISHED GRADE
TOP OF FLOODWAY
TOP OF PAVEMENT
TOP OF PIPE
TOP OF WALK
INTERSECTION ANGLE

PROJECT TEAM CONTACTS

CIVIL ENGINEERS:
ADAM L. J. JANTZ, P.E.
1500 W. WISCONSIN STREET
MILWAUKEE, WI 53233
(414) 252-2222

APPLICANT:
BRAD FOLEY, P.E.
12575 ULINE DRIVE
PLEASANT PRAIRIE, WI 53158
(262) 632-4200

ARCHITECT:
PETER LACINA, AIA
303 EAST CHICAGO STREET
MILWAUKEE, WI 53211
(414) 252-2222

GENERAL CONTRACTOR:
GOSPELNEY
1400 WISCONSIN DRIVE
MILWAUKEE, WI 53224
(414) 252-2222

STRUCTURAL:
JIM HAYES, P.E.
125 SOUTH 84TH ST.
MILWAUKEE, WI 53214
(414) 252-2222

SITE LIGHTING/FIRE PROTECTION:
GARY FISHER, P.E.
1500 WISCONSIN DRIVE
MILWAUKEE, WI 53233
(414) 252-2222

BENCHMARKS

BM 1: TOP OF NW FLANGE BOLT
HYDRANT LOCATED ON WEST SIDE OF
FRONTAGE ROAD
ELEVATION= 717.44

BM 2: TOP OF NW FLANGE BOLT
HYDRANT LOCATED ON WEST SIDE OF
FRONTAGE ROAD
ELEVATION= 716.27

VERTICAL DATUM: NORTH AMERICAN
DATUM OF 1927

GENERAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.

- ### REQUIRED SUBMITTALS FOR APPROVAL
- HOT MIX ASPHALT - HOT MIX
 - CONCRETE PAVEMENTS (EXTERIOR) - REINFORCED & CURT
 - PAVEMENT STONE BASE COURSE - UNGRAVELLED
 - PIPE BEDDING & TRENCH BACKFILL - UNGRAVELLED
 - MANHOLE BACKFILL - UNGRAVELLED
 - PAVEMENT MARKING PAINT

- ### REQUIRED SUBMITTALS FOR RECORDS
- WATER MAIN PIPES, VALVES, HYDRANTS & FITTINGS
 - SANITARY SEWER PIPE & FITTINGS
 - STORM SEWER PIPE, STRUCTURES, & FITTINGS
 - TRACER WIRE
 - UNDERGROUND UTILITY LOCATION RECORD DRAWINGS
 - ADA SIGN & TRUNCATED DOMES, PAINT & STENCILS
 - CHEMICAL SOIL STABILIZATION MIX DESIGN (IF APPLICABLE)

BID PACKAGE 4

PIVOTAL ENGINEERING GROUP, LLC
1001 WISCONSIN DRIVE
MILWAUKEE, WI 53233
(414) 252-2222

EXPIRATION DATE: JULY 31, 2016

REVISIONS

NO.	DATE	DESCRIPTION
1	07/27/15	ISSUE FOR BIDDING
2	08/11/15	ISSUE FOR BIDDING
3	08/11/15	ISSUE FOR BIDDING
4	08/11/15	ISSUE FOR BIDDING
5	08/11/15	ISSUE FOR BIDDING
6	08/11/15	ISSUE FOR BIDDING
7	08/11/15	ISSUE FOR BIDDING
8	08/11/15	ISSUE FOR BIDDING
9	08/11/15	ISSUE FOR BIDDING
10	08/11/15	ISSUE FOR BIDDING
11	08/11/15	ISSUE FOR BIDDING
12	08/11/15	ISSUE FOR BIDDING
13	08/11/15	ISSUE FOR BIDDING
14	08/11/15	ISSUE FOR BIDDING
15	08/11/15	ISSUE FOR BIDDING
16	08/11/15	ISSUE FOR BIDDING
17	08/11/15	ISSUE FOR BIDDING
18	08/11/15	ISSUE FOR BIDDING
19	08/11/15	ISSUE FOR BIDDING
20	08/11/15	ISSUE FOR BIDDING
21	08/11/15	ISSUE FOR BIDDING
22	08/11/15	ISSUE FOR BIDDING
23	08/11/15	ISSUE FOR BIDDING
24	08/11/15	ISSUE FOR BIDDING
25	08/11/15	ISSUE FOR BIDDING
26	08/11/15	ISSUE FOR BIDDING
27	08/11/15	ISSUE FOR BIDDING
28	08/11/15	ISSUE FOR BIDDING
29	08/11/15	ISSUE FOR BIDDING
30	08/11/15	ISSUE FOR BIDDING
31	08/11/15	ISSUE FOR BIDDING
32	08/11/15	ISSUE FOR BIDDING
33	08/11/15	ISSUE FOR BIDDING
34	08/11/15	ISSUE FOR BIDDING
35	08/11/15	ISSUE FOR BIDDING
36	08/11/15	ISSUE FOR BIDDING
37	08/11/15	ISSUE FOR BIDDING
38	08/11/15	ISSUE FOR BIDDING
39	08/11/15	ISSUE FOR BIDDING
40	08/11/15	ISSUE FOR BIDDING
41	08/11/15	ISSUE FOR BIDDING
42	08/11/15	ISSUE FOR BIDDING
43	08/11/15	ISSUE FOR BIDDING
44	08/11/15	ISSUE FOR BIDDING
45	08/11/15	ISSUE FOR BIDDING
46	08/11/15	ISSUE FOR BIDDING
47	08/11/15	ISSUE FOR BIDDING
48	08/11/15	ISSUE FOR BIDDING
49	08/11/15	ISSUE FOR BIDDING
50	08/11/15	ISSUE FOR BIDDING
51	08/11/15	ISSUE FOR BIDDING
52	08/11/15	ISSUE FOR BIDDING
53	08/11/15	ISSUE FOR BIDDING
54	08/11/15	ISSUE FOR BIDDING
55	08/11/15	ISSUE FOR BIDDING
56	08/11/15	ISSUE FOR BIDDING
57	08/11/15	ISSUE FOR BIDDING
58	08/11/15	ISSUE FOR BIDDING
59	08/11/15	ISSUE FOR BIDDING
60	08/11/15	ISSUE FOR BIDDING
61	08/11/15	ISSUE FOR BIDDING
62	08/11/15	ISSUE FOR BIDDING
63	08/11/15	ISSUE FOR BIDDING
64	08/11/15	ISSUE FOR BIDDING
65	08/11/15	ISSUE FOR BIDDING
66	08/11/15	ISSUE FOR BIDDING
67	08/11/15	ISSUE FOR BIDDING
68	08/11/15	ISSUE FOR BIDDING
69	08/11/15	ISSUE FOR BIDDING
70	08/11/15	ISSUE FOR BIDDING
71	08/11/15	ISSUE FOR BIDDING
72	08/11/15	ISSUE FOR BIDDING
73	08/11/15	ISSUE FOR BIDDING
74	08/11/15	ISSUE FOR BIDDING
75	08/11/15	ISSUE FOR BIDDING
76	08/11/15	ISSUE FOR BIDDING
77	08/11/15	ISSUE FOR BIDDING
78	08/11/15	ISSUE FOR BIDDING
79	08/11/15	ISSUE FOR BIDDING
80	08/11/15	ISSUE FOR BIDDING
81	08/11/15	ISSUE FOR BIDDING
82	08/11/15	ISSUE FOR BIDDING
83	08/11/15	ISSUE FOR BIDDING
84	08/11/15	ISSUE FOR BIDDING
85	08/11/15	ISSUE FOR BIDDING
86	08/11/15	ISSUE FOR BIDDING
87	08/11/15	ISSUE FOR BIDDING
88	08/11/15	ISSUE FOR BIDDING
89	08/11/15	ISSUE FOR BIDDING
90	08/11/15	ISSUE FOR BIDDING
91	08/11/15	ISSUE FOR BIDDING
92	08/11/15	ISSUE FOR BIDDING
93	08/11/15	ISSUE FOR BIDDING
94	08/11/15	ISSUE FOR BIDDING
95	08/11/15	ISSUE FOR BIDDING
96	08/11/15	ISSUE FOR BIDDING
97	08/11/15	ISSUE FOR BIDDING
98	08/11/15	ISSUE FOR BIDDING
99	08/11/15	ISSUE FOR BIDDING
100	08/11/15	ISSUE FOR BIDDING

COVER SHEET

INDEX OF SHEETS

COVER SHEET	
C-1	EXISTING CONDITIONS
C-2	DEMOLITION PLAN
C-3	SITE DIMENSIONAL AND PAVING PLAN
C-3A	GRADING PLAN
C-4	UTILITY PLAN
C-5	PUBLIC UTILITY PLAN AND PROFILE
C-6	WATERMAIN PLAN AND PROFILE
C-7	SITE STABILIZATION PLAN
C-8	CONSTRUCTION DETAILS
C-9	UTILITY DRAIN TILE AND CONDUIT SLEEVE PLAN
C-10	H2 DEVELOPMENT DATA
C-11	GENERAL NOTES
C-12	PROJECT TEAM CONTACTS
C-13	BENCHMARKS
C-14	LEGEND
C-15	ABBREVIATIONS
C-16	REVISIONS
C-17	PIVOTAL ENGINEERING GROUP, LLC
C-18	ROUTE 165, LLC
C-19	ADAM L. JANTZ, P.E.
C-20	BRAD FOLEY, P.E.
C-21	PETER LACINA, AIA
C-22	GOSPELNEY
C-23	JIM HAYES, P.E.
C-24	GARY FISHER, P.E.
C-25	LEGEND
C-26	ABBREVIATIONS

PIVOTAL ENGINEERING GROUP, LLC AND THE CONSULTANTS ON THESE PLANS OR DRAWINGS, THE AGENCY AND CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION MATERIALS.

COVER SHEET

ULINE CORPORATE CAMPUS H2 FACILITY
PLEASANT PRAIRIE, WI

PIVOTAL ENGINEERING GROUP
1001 WISCONSIN DRIVE
MILWAUKEE, WI 53233
(414) 252-2222

PIVOTAL ENGINEERING GROUP, LLC
1001 WISCONSIN DRIVE
MILWAUKEE, WI 53233
(414) 252-2222

ROUTE 165, LLC
12575 ULINE DRIVE
PLEASANT PRAIRIE, WI 53158
(262) 632-4200

ADAM L. JANTZ, P.E.
1500 WISCONSIN STREET
MILWAUKEE, WI 53233
(414) 252-2222

BRAD FOLEY, P.E.
12575 ULINE DRIVE
PLEASANT PRAIRIE, WI 53158
(262) 632-4200

PETER LACINA, AIA
303 EAST CHICAGO STREET
MILWAUKEE, WI 53211
(414) 252-2222

GOSPELNEY
1400 WISCONSIN DRIVE
MILWAUKEE, WI 53224
(414) 252-2222

JIM HAYES, P.E.
125 SOUTH 84TH ST.
MILWAUKEE, WI 53214
(414) 252-2222

GARY FISHER, P.E.
1500 WISCONSIN DRIVE
MILWAUKEE, WI 53233
(414) 252-2222

SHEET	C-2
DATE	08/17/15
PROJECT	ULINE CORPORATE CAMPUS H2 FACILITY
LOCATION	PLEASANT PRAIRIE, WI
SCALE	1" = 40'
GRAPHICAL SCALE (FEET)	0 10 20 30 40 50 60 70 80 90 100 110 120
REVISED	NO
BY	
CHECKED	
DATE	

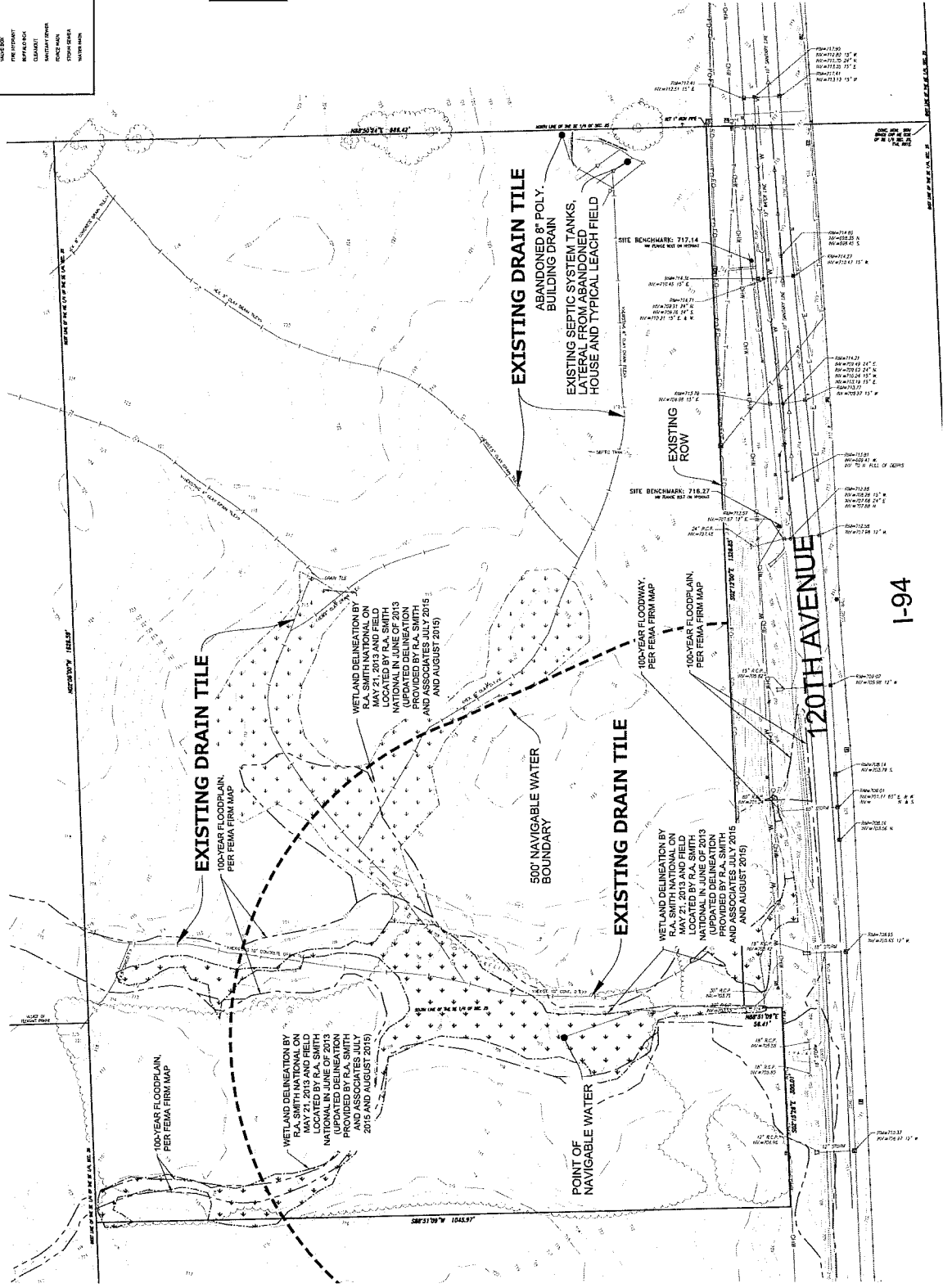
LEGEND

SYMBOL	DESCRIPTION
(Symbol)	WETLAND DELINEATION
(Symbol)	100-YEAR FLOODPLAIN
(Symbol)	500' NAVIGABLE WATER BOUNDARY
(Symbol)	EXISTING DRAIN TILE
(Symbol)	ABANDONED 8" POLY. BUILDING DRAIN
(Symbol)	EXISTING SEPTIC SYSTEM TANKS, LATERAL FROM ABANDONED HOUSE AND TYPICAL LEACH FIELD
(Symbol)	EXISTING ROW
(Symbol)	100-YEAR FLOODWAY
(Symbol)	POINT OF NAVIGABLE WATER
(Symbol)	WETLAND DELINEATION
(Symbol)	100-YEAR FLOODPLAIN
(Symbol)	500' NAVIGABLE WATER BOUNDARY
(Symbol)	EXISTING DRAIN TILE
(Symbol)	ABANDONED 8" POLY. BUILDING DRAIN
(Symbol)	EXISTING SEPTIC SYSTEM TANKS, LATERAL FROM ABANDONED HOUSE AND TYPICAL LEACH FIELD
(Symbol)	EXISTING ROW
(Symbol)	100-YEAR FLOODWAY
(Symbol)	POINT OF NAVIGABLE WATER

EXISTING CONDITIONS SURVEY
 EXISTING CONDITIONS SURVEY PROVIDED BY CONTRACTOR. THE SURVEYOR HAS CONDUCTED VISUAL INSPECTION OF THE SURVEY AND HAS FOUND NO DISCREPANCIES. THE SURVEYOR HAS CONDUCTED VISUAL INSPECTION OF THE SURVEY AND HAS FOUND NO DISCREPANCIES. THE SURVEYOR HAS CONDUCTED VISUAL INSPECTION OF THE SURVEY AND HAS FOUND NO DISCREPANCIES.

CONTRACTOR RESPONSIBILITY:
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE SURVEY DATA PROVIDED TO THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE SURVEY DATA PROVIDED TO THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE SURVEY DATA PROVIDED TO THE ENGINEER.

NOTES
 1. ALL DIMENSIONS ARE IN FEET AND INCHES.
 2. ALL DIMENSIONS ARE IN FEET AND INCHES.
 3. ALL DIMENSIONS ARE IN FEET AND INCHES.
 4. ALL DIMENSIONS ARE IN FEET AND INCHES.



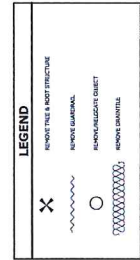
EXISTING CONDITIONS

ULINE CORPORATE CAMPUS H2 FACILITY
 PLEASANT PRAIRIE, WI

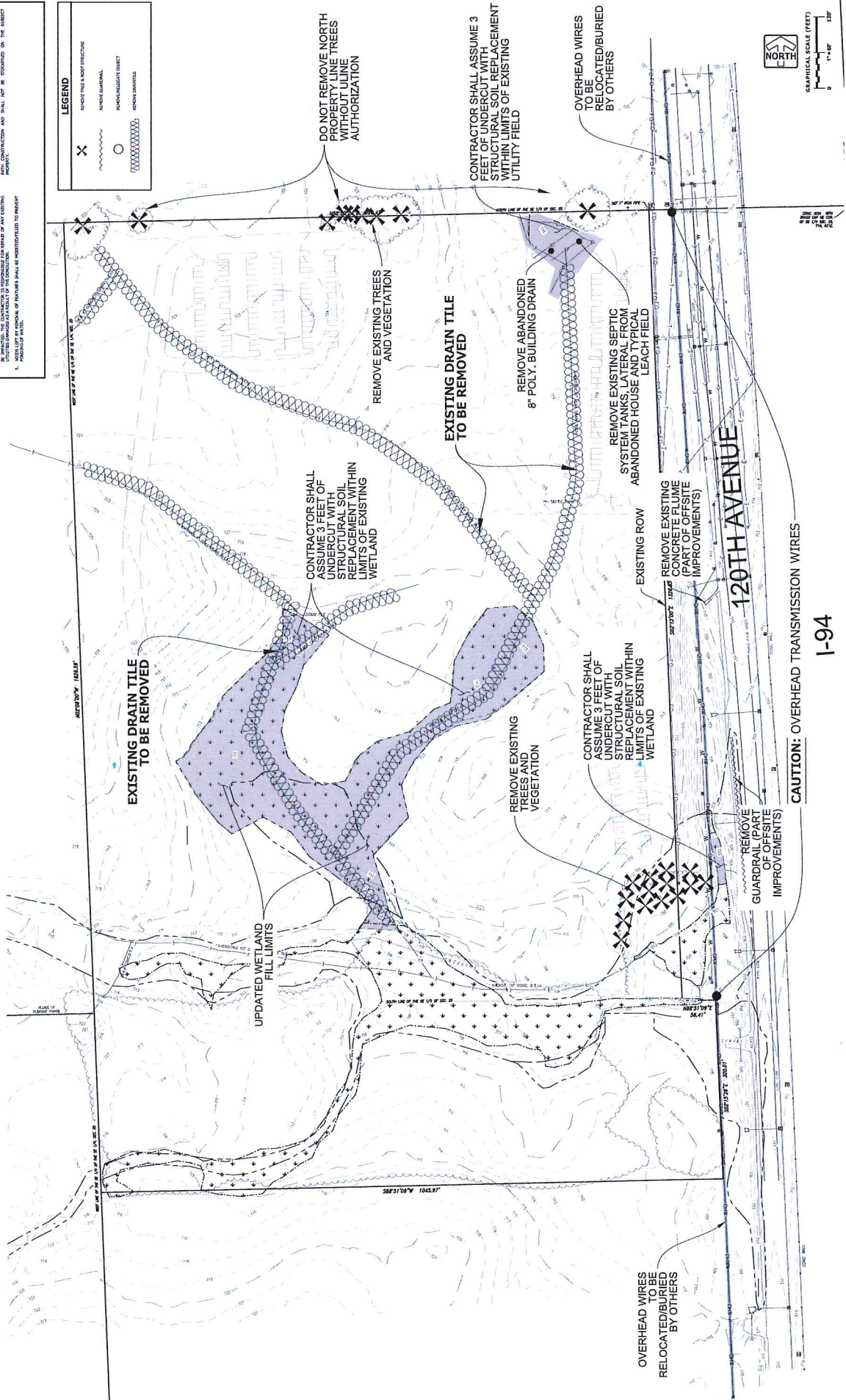
PLANT DESIGN DELIVER
 PINNACLE ENGINEERING GROUP
 1000 W. WISCONSIN AVENUE, SUITE 200
 MILWAUKEE, WI 53233

NOTES

1. REVIEW ALL APPLICABLE REGULATIONS AND ORDINANCES, INCLUDING BUT NOT LIMITED TO, LOCAL, STATE AND FEDERAL REGULATIONS AND ORDINANCES, AND ALL APPLICABLE PERMITS AND REGULATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS PRIOR TO COMMENCEMENT OF WORK.



DO NOT REMOVE ANY TREES PRIOR TO OCTOBER 1, 2015 AS DIRECTED BY USACE



REVISIONS

NO.	DATE	DESCRIPTION
1	08/15/15	ISSUED FOR PERMIT
2	08/15/15	ISSUED FOR PERMIT
3	08/15/15	ISSUED FOR PERMIT
4	08/15/15	ISSUED FOR PERMIT
5	08/15/15	ISSUED FOR PERMIT
6	08/15/15	ISSUED FOR PERMIT
7	08/15/15	ISSUED FOR PERMIT
8	08/15/15	ISSUED FOR PERMIT
9	08/15/15	ISSUED FOR PERMIT
10	08/15/15	ISSUED FOR PERMIT

ULINE CORPORATE CAMPUS H2 FACILITY PLEASANT PRAIRIE, WI

DEMOLITION PLAN

PINNACLE ENGINEERING GROUP
 CONSULTING ENGINEERS AND ARCHITECTS
 1000 W. WISCONSIN AVENUE, SUITE 200
 MILWAUKEE, WI 53233
 TEL: 414.224.1100
 FAX: 414.224.1101
 WWW.PINNACLE-ENGR.COM

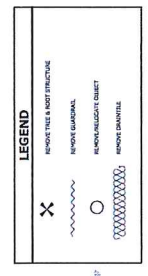
PLAN DESIGN DELIVER



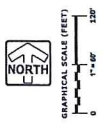
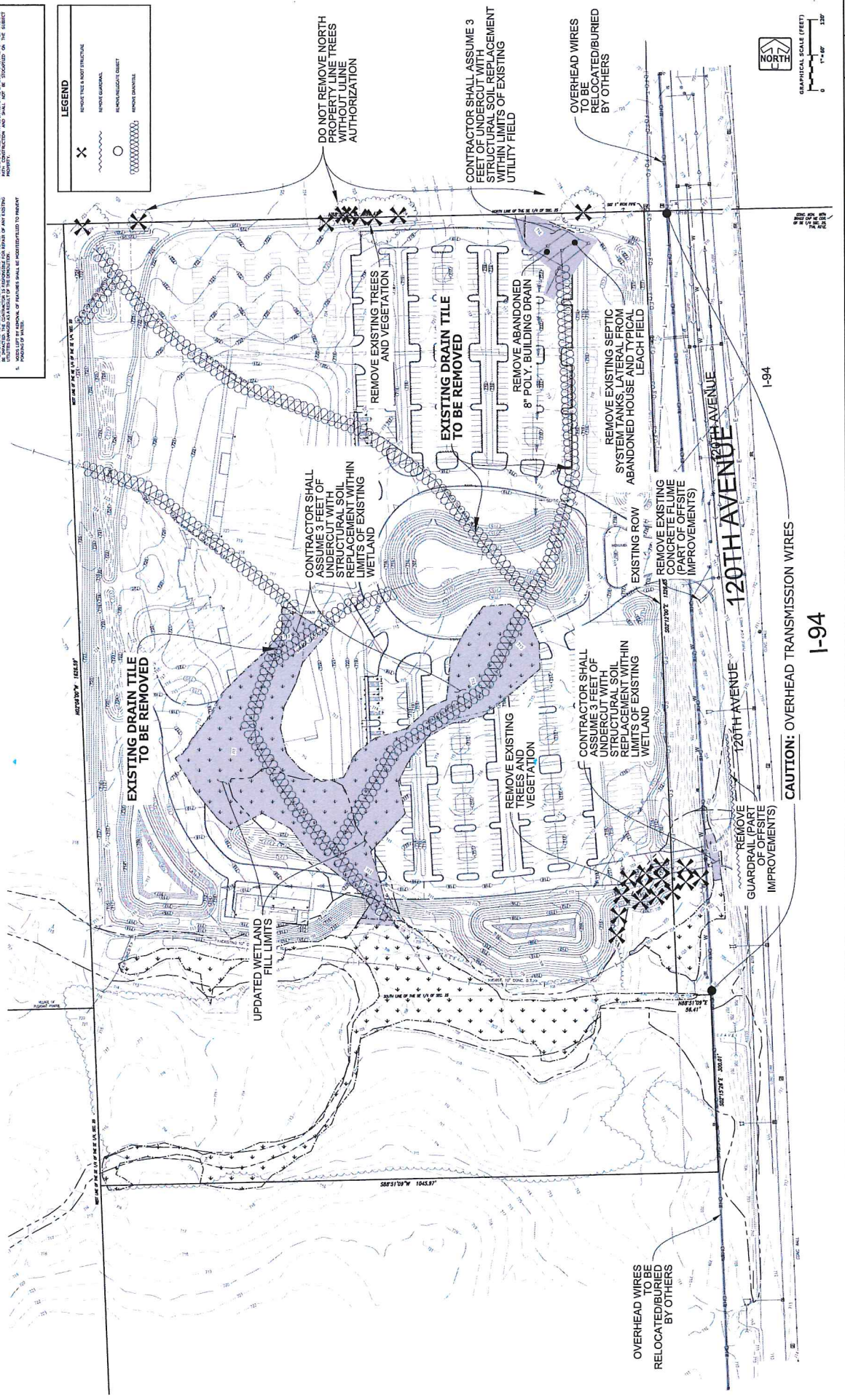
SHEET C-3
 OF 3
C-26

NOTES

1. EXISTING AND PROPOSED UTILITIES SHALL BE IDENTIFIED AND SHOWN AS SHOWN ON THIS PLAN. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND AUTHORIZATIONS FROM THE APPROPRIATE AGENCIES PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL REMOVE ALL EXISTING UTILITIES IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND LOCAL ORDINANCES.
4. CONTRACTOR SHALL REMOVE ALL EXISTING UTILITIES AND STRUCTURES WITHIN THE WETLAND LIMITS AS SHOWN ON THIS PLAN.
5. CONTRACTOR SHALL REMOVE ALL EXISTING UTILITIES AND STRUCTURES WITHIN THE WETLAND LIMITS AS SHOWN ON THIS PLAN.
6. CONTRACTOR SHALL REMOVE ALL EXISTING UTILITIES AND STRUCTURES WITHIN THE WETLAND LIMITS AS SHOWN ON THIS PLAN.
7. CONTRACTOR SHALL REMOVE ALL EXISTING UTILITIES AND STRUCTURES WITHIN THE WETLAND LIMITS AS SHOWN ON THIS PLAN.
8. CONTRACTOR SHALL REMOVE ALL EXISTING UTILITIES AND STRUCTURES WITHIN THE WETLAND LIMITS AS SHOWN ON THIS PLAN.
9. CONTRACTOR SHALL REMOVE ALL EXISTING UTILITIES AND STRUCTURES WITHIN THE WETLAND LIMITS AS SHOWN ON THIS PLAN.
10. CONTRACTOR SHALL REMOVE ALL EXISTING UTILITIES AND STRUCTURES WITHIN THE WETLAND LIMITS AS SHOWN ON THIS PLAN.



DO NOT REMOVE ANY TREES PRIOR TO OCTOBER 1, 2015 AS DIRECTED BY USACE



REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD.
1	08/15/15	ISSUED FOR PERMIT	J. J. J.	J. J. J.
2	08/15/15	ISSUED FOR PERMIT	J. J. J.	J. J. J.
3	08/15/15	ISSUED FOR PERMIT	J. J. J.	J. J. J.

DEMOLITION PLAN - OVERLAY

ULINE CORPORATE CAMPUS H2 FACILITY PLEASANT PRAIRIE, WI

PINNACLE ENGINEERING GROUP
 1000 W. WISCONSIN AVENUE, SUITE 200
 MILWAUKEE, WISCONSIN 53233
 TEL: 414.224.1100
 FAX: 414.224.1101
 WWW.PINNACLE-ENR.COM

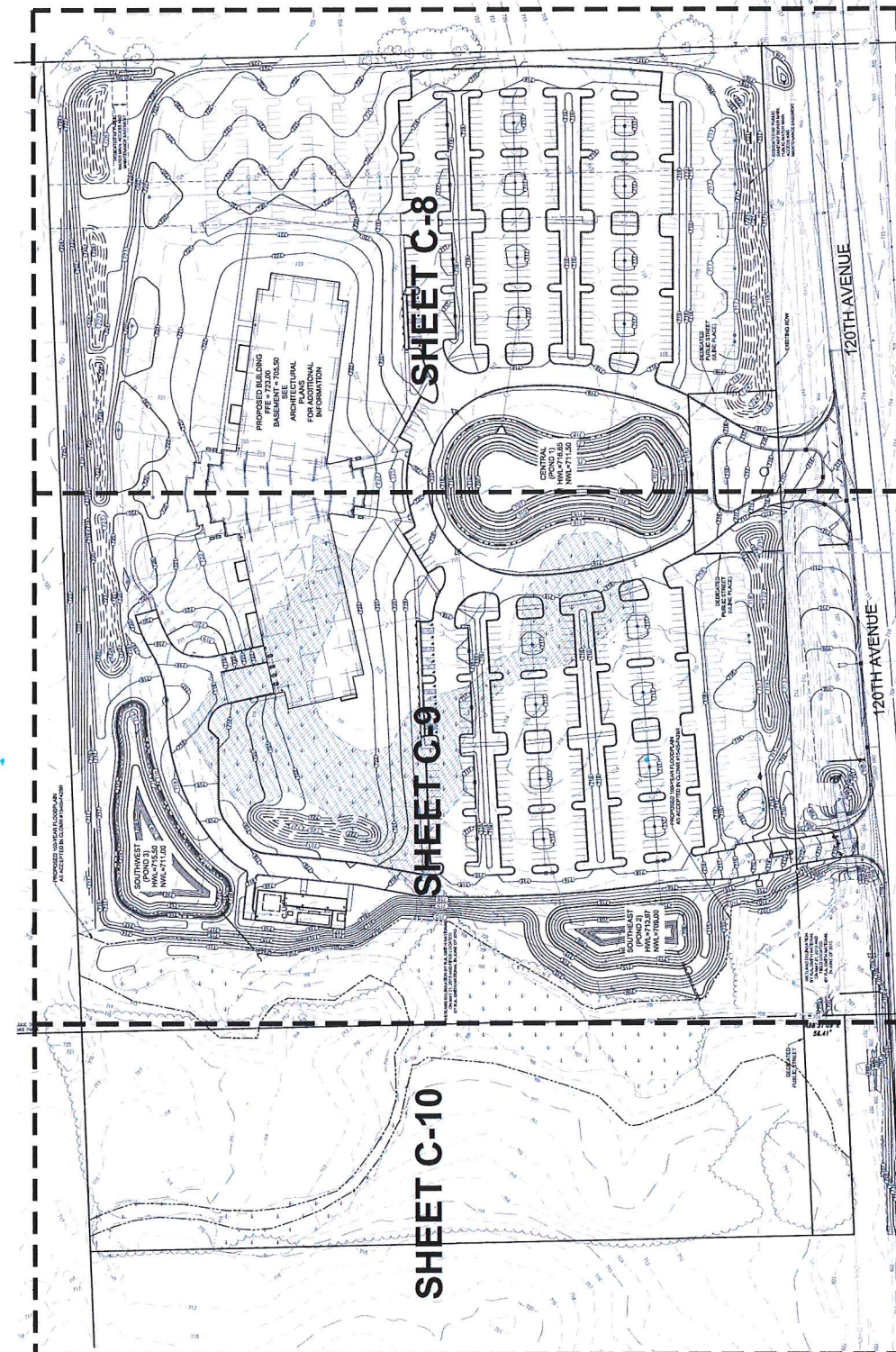
THE INFORMATION SHOWN ON THIS DRAWING IS BASED ON THE RECORD DRAWINGS AND SURVEY DATA PROVIDED TO THE ENGINEER BY THE CLIENT. THE ENGINEER HAS CONDUCTED A VISUAL GENERAL VERIFICATION OF THE INFORMATION SHOWN ON THIS DRAWING AND HAS FOUND IT TO BE REASONABLY ACCURATE. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF THE INFORMATION SHOWN ON THIS DRAWING AND DOES NOT ASSUME ANY LIABILITY FOR ANY ERRORS OR OMISSIONS. THE CLIENT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR VERIFYING THE ACCURACY OF THE INFORMATION SHOWN ON THIS DRAWING. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE FACILITY SHOWN ON THIS DRAWING.

- NOTES**
1. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS, INCLUDING ALL ELEVATIONS SHOWN ON THIS DRAWING, AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR VERIFYING THE ACCURACY OF THE INFORMATION SHOWN ON THIS DRAWING.
 2. ALL EXISTING CONDITIONS NOT SHOWN ON THIS DRAWING SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
 3. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 4. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 5. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 6. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 7. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 8. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 9. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 10. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 11. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 12. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.

- NOTES**
13. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 14. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 15. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 16. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 17. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 18. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 19. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 20. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 21. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.
 22. THE CONTRACTOR SHALL MAINTAIN THE EXISTING GRADE ALONG THE EDGE OF EXISTING DRIVEWAYS AS SHOWN ON THIS DRAWING.

LEGEND

①	CONCRETE COVER MANHOLE	—	OPERATION RELIEF ROUTING
②	STONE SEWER MANHOLE	—	CONCRETE SIDEWALK
③	CATCH BASIN-ROUND CASTING	—	EXPRESSED CURB
④	CATCH BASIN-RECTANGULAR CASTING	—	REVERSE PITCH CURB & GUTTER
⑤	CLEARCUT	—	FINISHED FLOOR
⑥	CONCRETE	—	EDGE OF PAVEMENT
⑦	GRAVEL	—	DIRT OR GRAVEL
⑧	GRAVEL	—	DIRT OR GRAVEL
⑨	GRAVEL	—	DIRT OR GRAVEL
⑩	GRAVEL	—	DIRT OR GRAVEL
⑪	GRAVEL	—	DIRT OR GRAVEL
⑫	GRAVEL	—	DIRT OR GRAVEL
⑬	GRAVEL	—	DIRT OR GRAVEL
⑭	GRAVEL	—	DIRT OR GRAVEL
⑮	GRAVEL	—	DIRT OR GRAVEL
⑯	GRAVEL	—	DIRT OR GRAVEL
⑰	GRAVEL	—	DIRT OR GRAVEL
⑱	GRAVEL	—	DIRT OR GRAVEL
⑲	GRAVEL	—	DIRT OR GRAVEL
⑳	GRAVEL	—	DIRT OR GRAVEL
㉑	GRAVEL	—	DIRT OR GRAVEL
㉒	GRAVEL	—	DIRT OR GRAVEL
㉓	GRAVEL	—	DIRT OR GRAVEL
㉔	GRAVEL	—	DIRT OR GRAVEL
㉕	GRAVEL	—	DIRT OR GRAVEL
㉖	GRAVEL	—	DIRT OR GRAVEL
㉗	GRAVEL	—	DIRT OR GRAVEL
㉘	GRAVEL	—	DIRT OR GRAVEL
㉙	GRAVEL	—	DIRT OR GRAVEL
㉚	GRAVEL	—	DIRT OR GRAVEL
㉛	GRAVEL	—	DIRT OR GRAVEL
㉜	GRAVEL	—	DIRT OR GRAVEL
㉝	GRAVEL	—	DIRT OR GRAVEL
㉞	GRAVEL	—	DIRT OR GRAVEL
㉟	GRAVEL	—	DIRT OR GRAVEL
㊱	GRAVEL	—	DIRT OR GRAVEL
㊲	GRAVEL	—	DIRT OR GRAVEL
㊳	GRAVEL	—	DIRT OR GRAVEL
㊴	GRAVEL	—	DIRT OR GRAVEL
㊵	GRAVEL	—	DIRT OR GRAVEL
㊶	GRAVEL	—	DIRT OR GRAVEL
㊷	GRAVEL	—	DIRT OR GRAVEL
㊸	GRAVEL	—	DIRT OR GRAVEL
㊹	GRAVEL	—	DIRT OR GRAVEL
㊺	GRAVEL	—	DIRT OR GRAVEL
㊻	GRAVEL	—	DIRT OR GRAVEL
㊼	GRAVEL	—	DIRT OR GRAVEL
㊽	GRAVEL	—	DIRT OR GRAVEL
㊾	GRAVEL	—	DIRT OR GRAVEL
㊿	GRAVEL	—	DIRT OR GRAVEL



ULINE CORPORATE CAMPUS H2 FACILITY
PLEASANT PRAIRIE, WI

GRADING PLAN

PLAN DESIGN/DELIVER
Pinnacle Engineering Group
1800 WILSON DRIVE
PLEASANT PRAIRIE, WI 53158
TEL: 262.338.8888
WWW.PINNACLE-ENG.COM

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD.
1	08/15/18	ISSUE FOR PERMIT	J. J. JACOBSON	J. J. JACOBSON
2	08/15/18	ISSUE FOR PERMIT	J. J. JACOBSON	J. J. JACOBSON
3	08/15/18	ISSUE FOR PERMIT	J. J. JACOBSON	J. J. JACOBSON
4	08/15/18	ISSUE FOR PERMIT	J. J. JACOBSON	J. J. JACOBSON
5	08/15/18	ISSUE FOR PERMIT	J. J. JACOBSON	J. J. JACOBSON

SHEET C-7
C-8
C-9
C-10

GRAPHICAL SCALE (FEET)
0 10 20 30
1" = 40'

NO. 208 12/28/18
DATE 08/15/18
SCALE 1/8" = 1'-0"

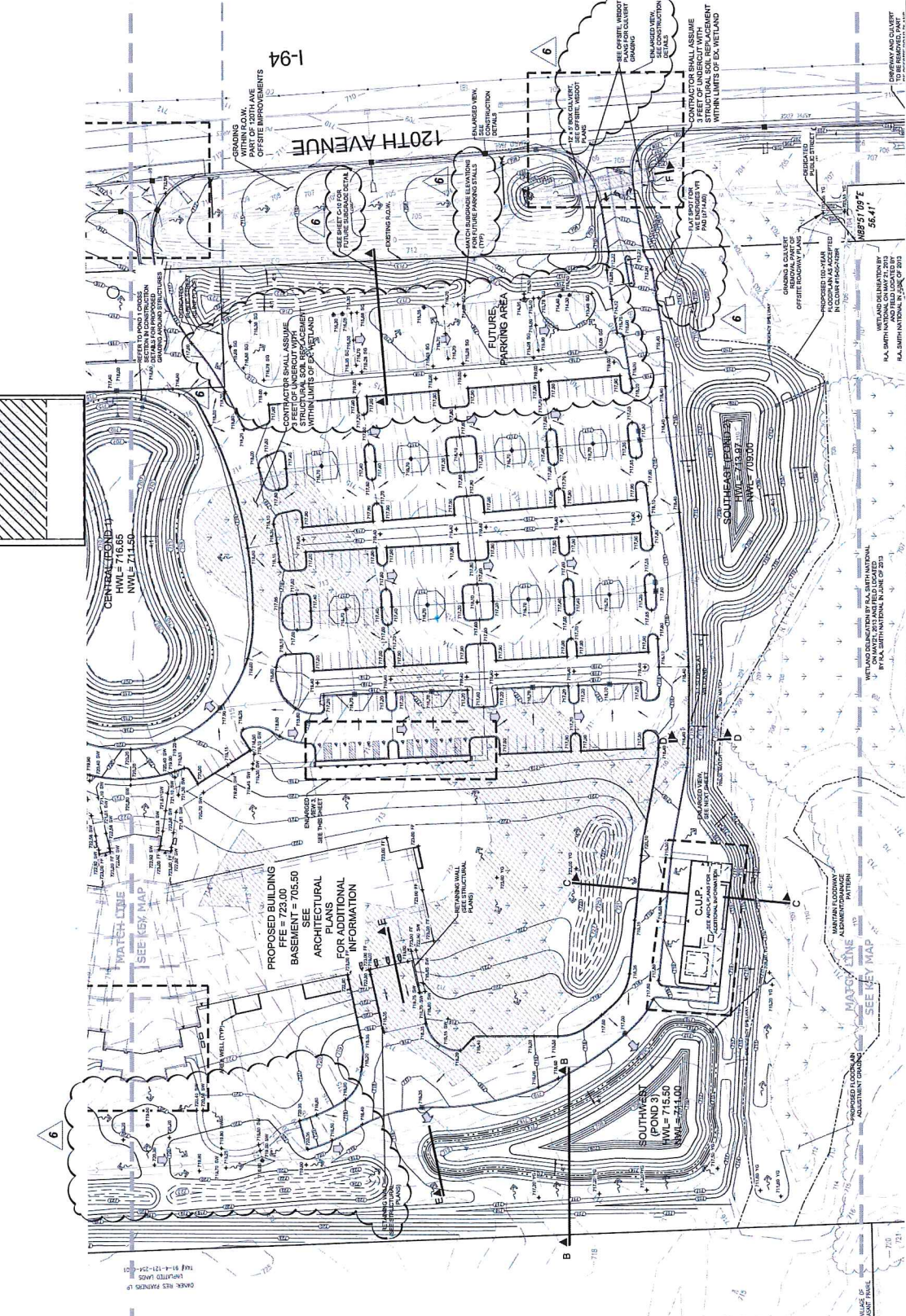
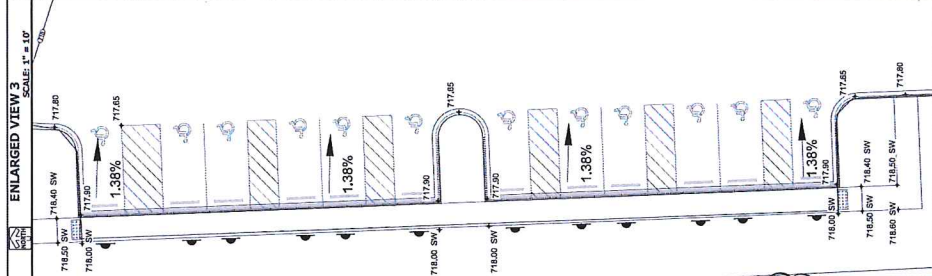
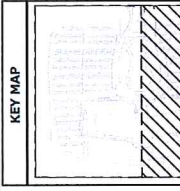
FOR CONSTRUCTION

WWW.PINNACLE-ENG.COM

LEGEND

	SEWER MANHOLE		STORM SEWER MANHOLE
	CATCH BASIN		CATCH BASIN - RECTANGULAR CATCHING
	CONCRETE CURBS		REVERSE PITCH CURBS & GUTTERS
	EDGE OF PAVEMENT		FINISHED FLOOR
	SLOPED SURFACE		SLOPED SURFACE WITH SPOT ELEVATION
	DIRECTION OF SURFACE FLOW		PAVED SURFACE
	PAVED SURFACE WITH SLOPE		FLOODPLAIN

- NOTES**
- SEE FIRST GRADING PLAN SHEET FOR GRADING NOTES.
 - SEE CONSTRUCTION DETAILS SECTION FOR ADDITIONAL INFORMATION PERTAINING TO THE GRADING PLAN.



REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD.
1	08/27/2018	ISSUED FOR PERMIT	JAC	JAC
2	09/11/2018	ISSUED FOR PERMIT	JAC	JAC
3	09/11/2018	ISSUED FOR PERMIT	JAC	JAC
4	09/11/2018	ISSUED FOR PERMIT	JAC	JAC
5	09/11/2018	ISSUED FOR PERMIT	JAC	JAC

GRADING PLAN

ULINE CORPORATE CAMPUS H2 FACILITY
PLEASANT PRAIRIE, WI

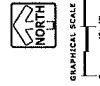
PINNACLE ENGINEERING GROUP
12201 WISCONSIN AVENUE, SUITE 100
PLEASANT PRAIRIE, WI 53091
TEL: 262.338.8888
WWW.PINNACLE-ENGR.COM

PLAN DESIGN DELIVER
DATE: 08/27/2018
PROJECT: ULINE CORPORATE CAMPUS H2 FACILITY
SHEET: C-9 OF C-26

SCALE: 1" = 10'
GRAPHICAL SCALE (FEET)
0 10 20 30

NORTH

THE INFORMATION SHOWN ON THIS DRAWING CONSTITUTES THE PLAN AND SPECIFICATIONS FOR THE PROPOSED WORK. THE USER SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL INFORMATION. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INFORMATION FROM ALL APPLICABLE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INFORMATION FROM ALL APPLICABLE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INFORMATION FROM ALL APPLICABLE AGENCIES.



NO.	DATE	BY	CHKD.	DESCRIPTION
1	11/17/2010	JL	ML	ISSUED FOR PERMIT
2	01/14/2011	JL	ML	REVISED TO REFLECT PERMIT COMMENTS
3	02/01/2011	JL	ML	REVISED TO REFLECT PERMIT COMMENTS
4	02/01/2011	JL	ML	REVISED TO REFLECT PERMIT COMMENTS
5	02/01/2011	JL	ML	REVISED TO REFLECT PERMIT COMMENTS
6	02/01/2011	JL	ML	REVISED TO REFLECT PERMIT COMMENTS

NO.	DATE	BY	CHKD.	DESCRIPTION
1	11/17/2010	JL	ML	ISSUED FOR PERMIT
2	01/14/2011	JL	ML	REVISED TO REFLECT PERMIT COMMENTS
3	02/01/2011	JL	ML	REVISED TO REFLECT PERMIT COMMENTS
4	02/01/2011	JL	ML	REVISED TO REFLECT PERMIT COMMENTS
5	02/01/2011	JL	ML	REVISED TO REFLECT PERMIT COMMENTS
6	02/01/2011	JL	ML	REVISED TO REFLECT PERMIT COMMENTS

**ULINE CORPORATE CAMPUS H2 FACILITY
PLEASANT PRAIRIE, WI**

GRADING PLAN

SHEET C-10
OF C-26

PLANT DESIGN DELIVER

PINNACLE ENGINEERING GROUP

1000 W. WISCONSIN AVENUE
MILWAUKEE, WI 53233

PHONE: 414.224.1100
FAX: 414.224.1101
WWW.PINNACLE-ENGR.COM

DATE: 02/01/2011
TIME: 11:17:25 AM

SCALE: 1" = 40'

GRAPHICAL SCALE (FEET)

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

SEE KEY MAP

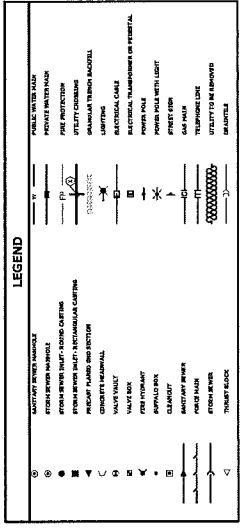
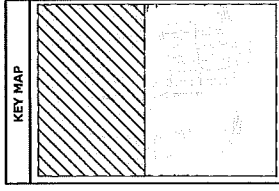
SEE KEY MAP

INDICATOR OF THE PROPOSED UTILITY PLAN IS TO BE CONSIDERED TO BE THE FINAL DESIGN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO ALL ADJACENT PROPERTIES AND PUBLIC AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL AREAS TO ORIGINAL OR BETTER CONDITION AFTER CONSTRUCTION IS COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO ALL ADJACENT PROPERTIES AND PUBLIC AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL AREAS TO ORIGINAL OR BETTER CONDITION AFTER CONSTRUCTION IS COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION.

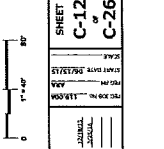
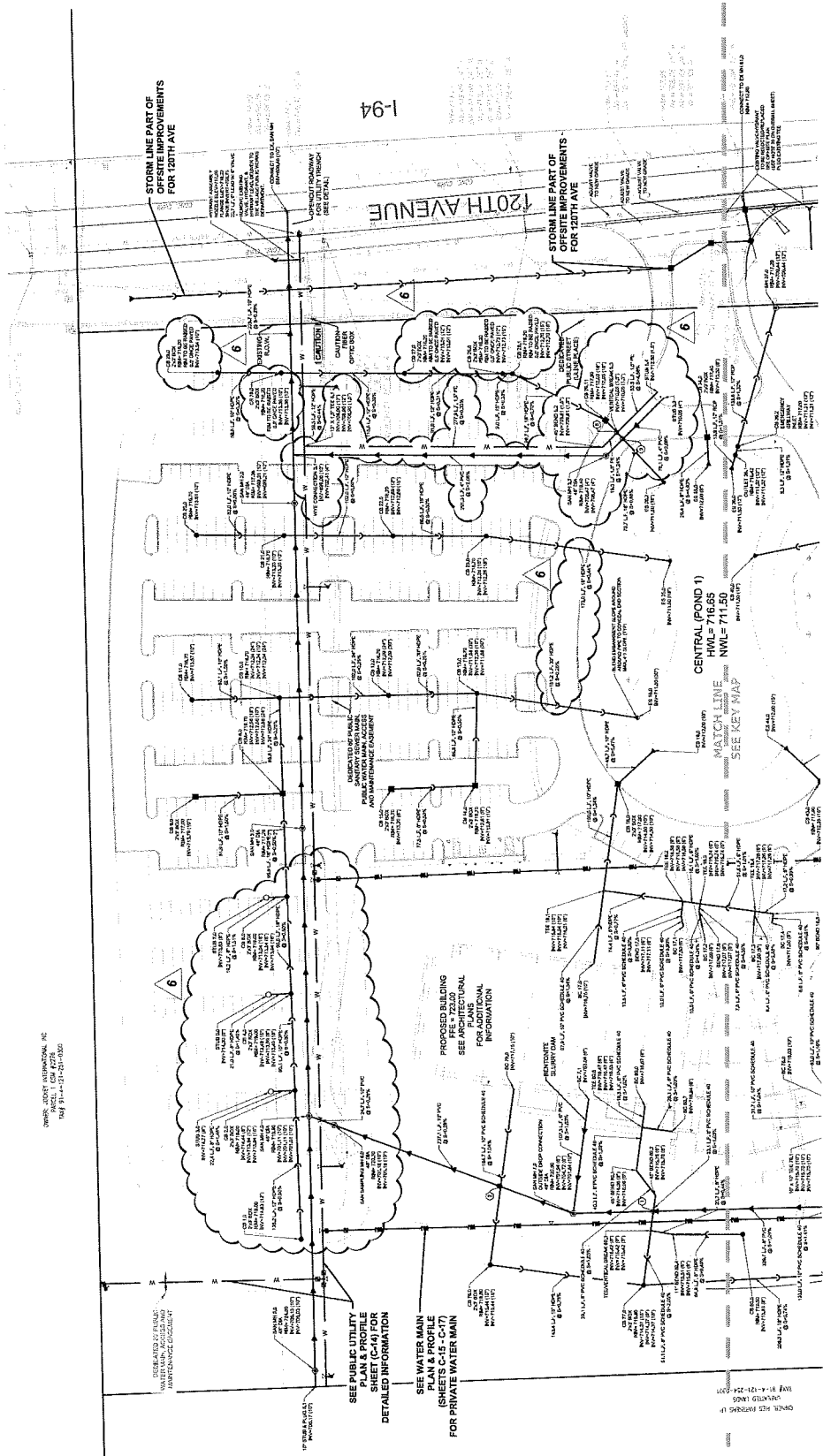
DESIGNED BY: Pinnacle Engineering, Inc.
 DRAWN BY: J. L. GARDNER
 DATE: 05/11/2011

NOTES

- SEE FIRST UTILITY PLAN SHEET FOR UTILITY NOTES.
- SEE CONSTRUCTION DETAILS SECTION FOR ADDITIONAL INFORMATION PERTAINING TO THE UTILITY PLAN.



***ADDITIONAL CROSSING INFORMATION AVAILABLE IN PUBLIC UTILITY & WATER MAIN PROFILES**



REVISIONS

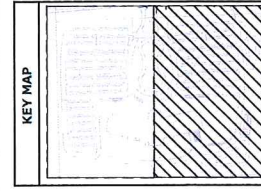
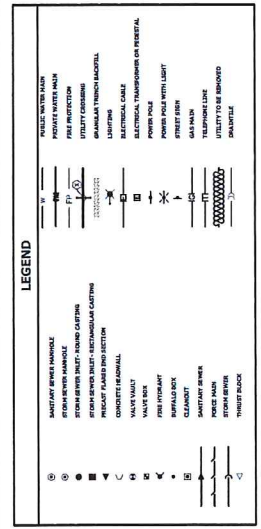
NO.	DATE	DESCRIPTION

UTILITY PLAN

**ULINE CORPORATE CAMPUS H2 FACILITY
 PLEASANT PRAIRIE, WI**

PLANNING DESIGN DELIVER

PINNACLE ENGINEERING GROUP
 1000 W. WISCONSIN AVENUE, SUITE 200
 MILWAUKEE, WISCONSIN 53233



NOTES

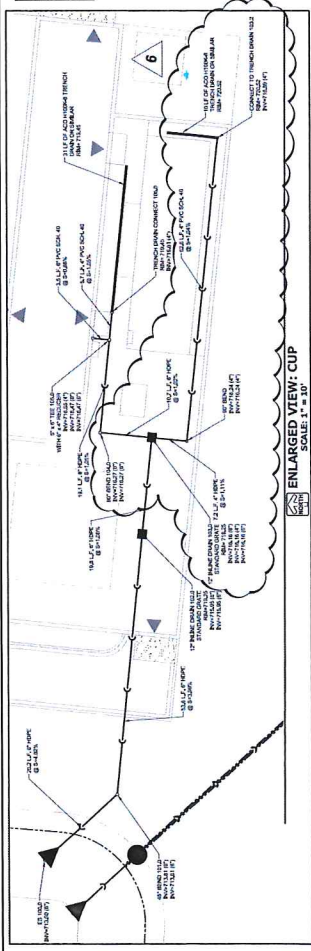
- SEE FIRST UTILITY PLAN SHEET FOR UTILITY NOTES.
- SEE CONSTRUCTION DETAILS SECTION FOR ADDITIONAL INFORMATION PERTAINING TO THE UTILITY PLAN.

CROSSINGS

1	4" SANITARY OVER
2	4" WATER OVER
3	12" STORM OVER
4	18" WATER OVER
5	6" GAS OVER
6	4" ELECTRICAL OVER
7	4" SANITARY OVER
8	4" WATER OVER
9	12" STORM OVER
10	18" WATER OVER
11	6" GAS OVER
12	4" ELECTRICAL OVER

*ADDITIONAL CROSSING INFORMATION AVAILABLE IN PUBLIC UTILITY & WATER MAIN PROFILES

THIS INFORMATION IS LOCATED ON THE DRAWING CONTAINING THE LOCATION OF ALL CROSSINGS. THE INFORMATION IS TO BE USED TO DETERMINE THE LOCATION OF ALL CROSSINGS. THE INFORMATION IS TO BE USED TO DETERMINE THE LOCATION OF ALL CROSSINGS. THE INFORMATION IS TO BE USED TO DETERMINE THE LOCATION OF ALL CROSSINGS.



REVISIONS

NO.	DATE	DESCRIPTION
1	11/15/2011	ISSUED FOR PERMIT
2	11/15/2011	ISSUED FOR PERMIT
3	11/15/2011	ISSUED FOR PERMIT
4	11/15/2011	ISSUED FOR PERMIT
5	11/15/2011	ISSUED FOR PERMIT
6	11/15/2011	ISSUED FOR PERMIT

GRAPHICAL SCALE (FEET)
1" = 40'

SCALE: 1" = 40'

UTILITY PLAN

ULINE CORPORATE CAMPUS H2 FACILITY
PLEASANT PRAIRIE, WI

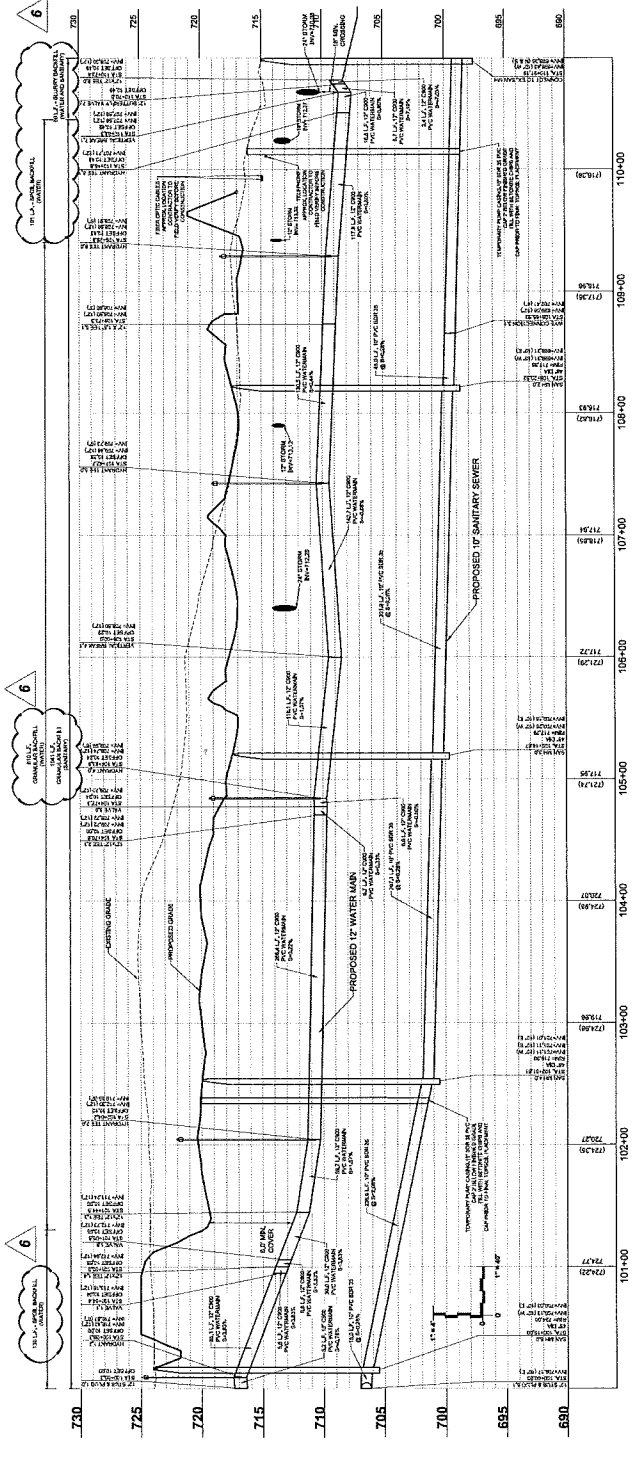
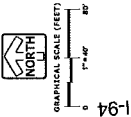
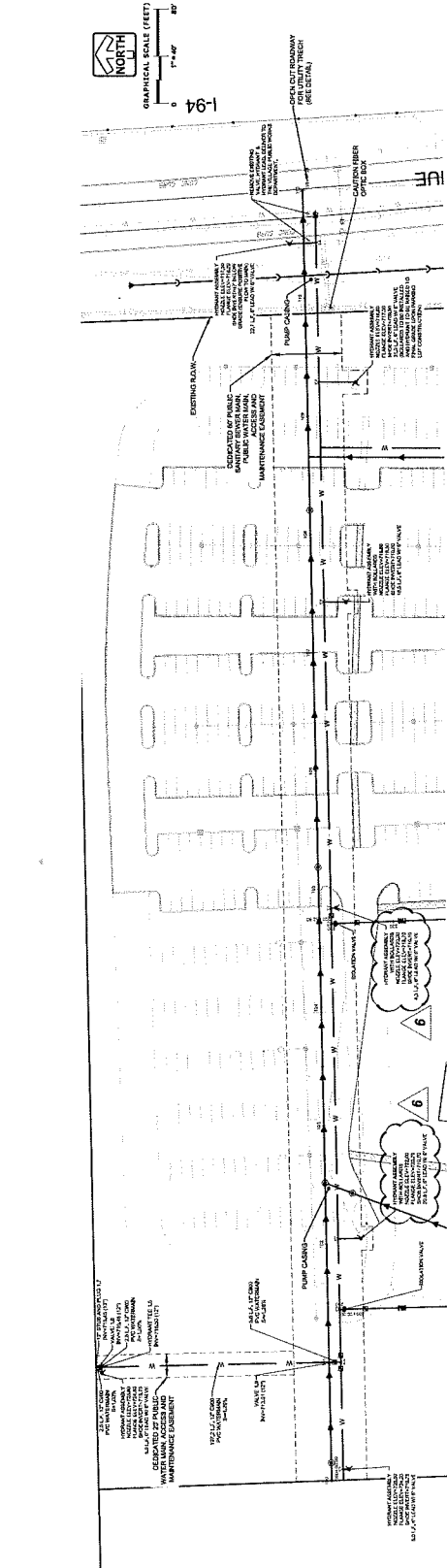
PLAN DESIGN DELIVER

PINNACLE ENGINEERING GROUP
ENGINEERING CONSULTING SERVICES

DATE: 11/15/2011

PROJECT: ULINE CORPORATE CAMPUS H2 FACILITY

SHEET: C-13 OF C-26



REVISIONS	
NO. 1	ISSUED FOR PERMIT
NO. 2	ISSUED FOR PERMIT
NO. 3	ISSUED FOR PERMIT
NO. 4	ISSUED FOR PERMIT
NO. 5	ISSUED FOR PERMIT
NO. 6	ISSUED FOR PERMIT
NO. 7	ISSUED FOR PERMIT
NO. 8	ISSUED FOR PERMIT
NO. 9	ISSUED FOR PERMIT
NO. 10	ISSUED FOR PERMIT

ULINE CORPORATE CAMPUS H2 FACILITY
PLEASANT PRAIRIE, WI

PINNACLE ENGINEERING GROUP
 1000 W. WISCONSIN AVENUE, SUITE 200
 MILWAUKEE, WI 53233
 TEL: 414.224.1100
 FAX: 414.224.1101
 WWW.PINNACLE-ENR.COM

PUBLIC UTILITY PLAN & PROFILE
 SHEET C-14
 C-26

SHEET		C-17	
DATE		2/20/24	
DRAWN BY		J. B. BROWN	
CHECKED BY		J. B. BROWN	
APPROVED BY		J. B. BROWN	
PROJECT NO.		24-001	
SHEET NO.		118.00	

REVISIONS	
NO.	DESCRIPTION
1	ISSUED FOR PERMITS
2	ISSUED FOR CONSTRUCTION
3	ISSUED FOR CONSTRUCTION
4	ISSUED FOR CONSTRUCTION

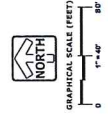
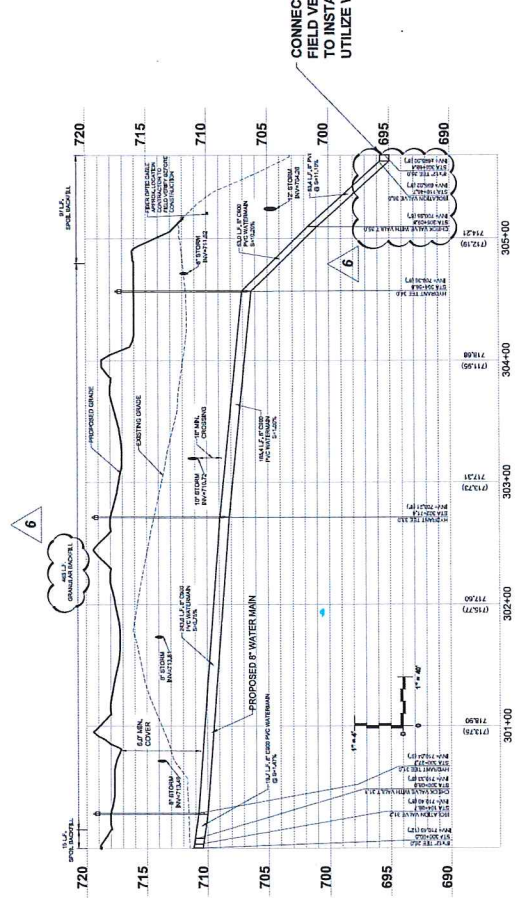
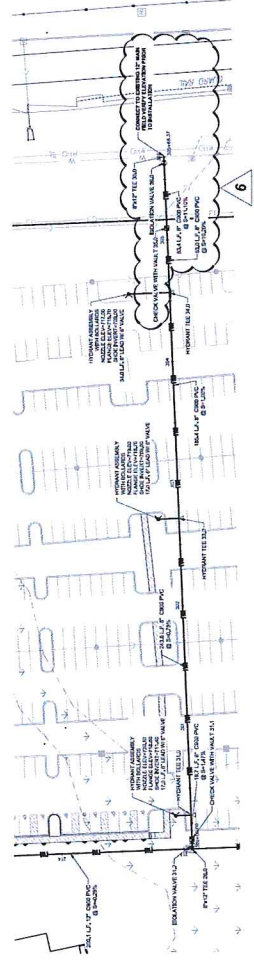
WATERMAIN PLAN & PROFILE

ULINE CORPORATE CAMPUS H2 FACILITY
PLEASANT PRAIRIE, WI

PLAN DESIGN DELIVER

PINNACLE ENGINEERING GROUP

1100 W. WISCONSIN AVENUE
MILWAUKEE, WI 53233
TEL: 414.224.1100
WWW.PINNACLE-ENGR.COM



CONNECT TO EXISTING 12" MAIN
FIELD VERIFY ELEVATION PRIOR
TO INSTALLATION
UTILIZE WET TAP CONNECTION

CONSTRUCTION SITE SEQUENCING

1. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.

1. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
5. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
6. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
7. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
8. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
9. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
10. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

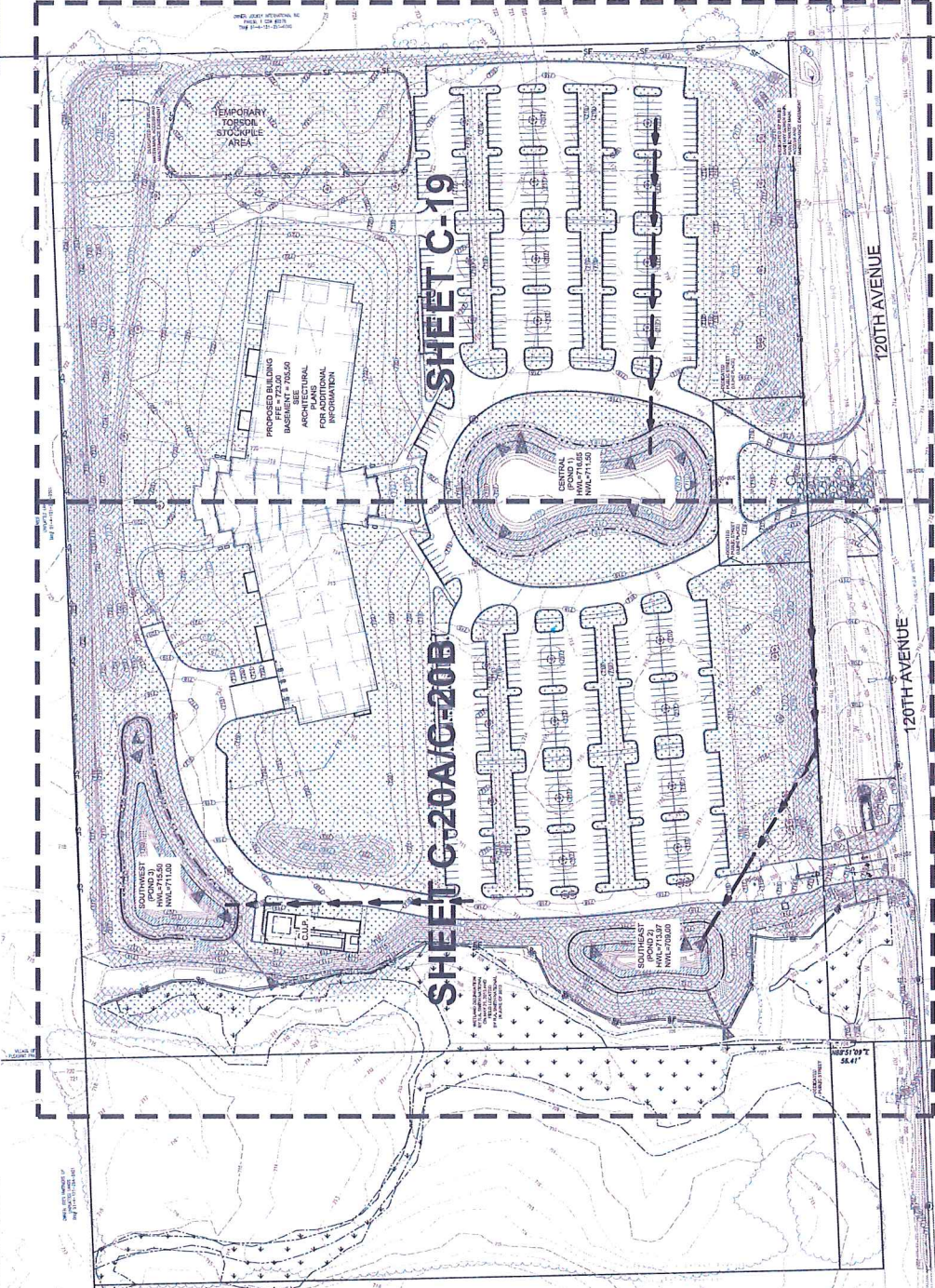
1. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.

1. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
3. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
5. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
6. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
7. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
8. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
9. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.
10. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AND STATE AGENCIES PRIOR TO THE START OF CONSTRUCTION.

LEGEND

1. HIGH WATER LEVEL (LINES)
2. DIRECTION OF BRANCH FLOW
3. FLOOD WALL
4. FLOOD WALL PROTECTION
5. FLOOD WALL PROTECTION (SEE DETAILS)
6. CONSTRUCTION ENTRANCE
7. FLOOD WALL PROTECTION (SEE DETAILS)
8. FLOOD WALL PROTECTION (SEE DETAILS)
9. FLOOD WALL PROTECTION (SEE DETAILS)
10. FLOOD WALL PROTECTION (SEE DETAILS)

1. HIGH WATER LEVEL (LINES)
2. DIRECTION OF BRANCH FLOW
3. FLOOD WALL
4. FLOOD WALL PROTECTION
5. FLOOD WALL PROTECTION (SEE DETAILS)
6. CONSTRUCTION ENTRANCE
7. FLOOD WALL PROTECTION (SEE DETAILS)
8. FLOOD WALL PROTECTION (SEE DETAILS)
9. FLOOD WALL PROTECTION (SEE DETAILS)
10. FLOOD WALL PROTECTION (SEE DETAILS)



REVISIONS

NO.	DESCRIPTION	DATE
1.	ISSUED FOR PERMIT	08/15/13
2.	ISSUED FOR PERMIT	08/15/13
3.	ISSUED FOR PERMIT	08/15/13
4.	ISSUED FOR PERMIT	08/15/13
5.	ISSUED FOR PERMIT	08/15/13
6.	ISSUED FOR PERMIT	08/15/13
7.	ISSUED FOR PERMIT	08/15/13
8.	ISSUED FOR PERMIT	08/15/13
9.	ISSUED FOR PERMIT	08/15/13
10.	ISSUED FOR PERMIT	08/15/13

ULINE CORPORATE CAMPUS H2 FACILITY
PLEASANT PRAIRIE, WI

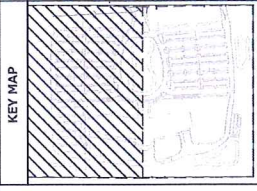
SITE STABILIZATION PLAN

PINNACLE ENGINEERING GROUP
1200 W. WISCONSIN AVENUE, SUITE 200
MILWAUKEE, WI 53233
TEL: 414.224.1100
WWW.PINNACLE-ENG.COM

PLANNING DESIGN DELIVER

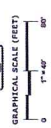
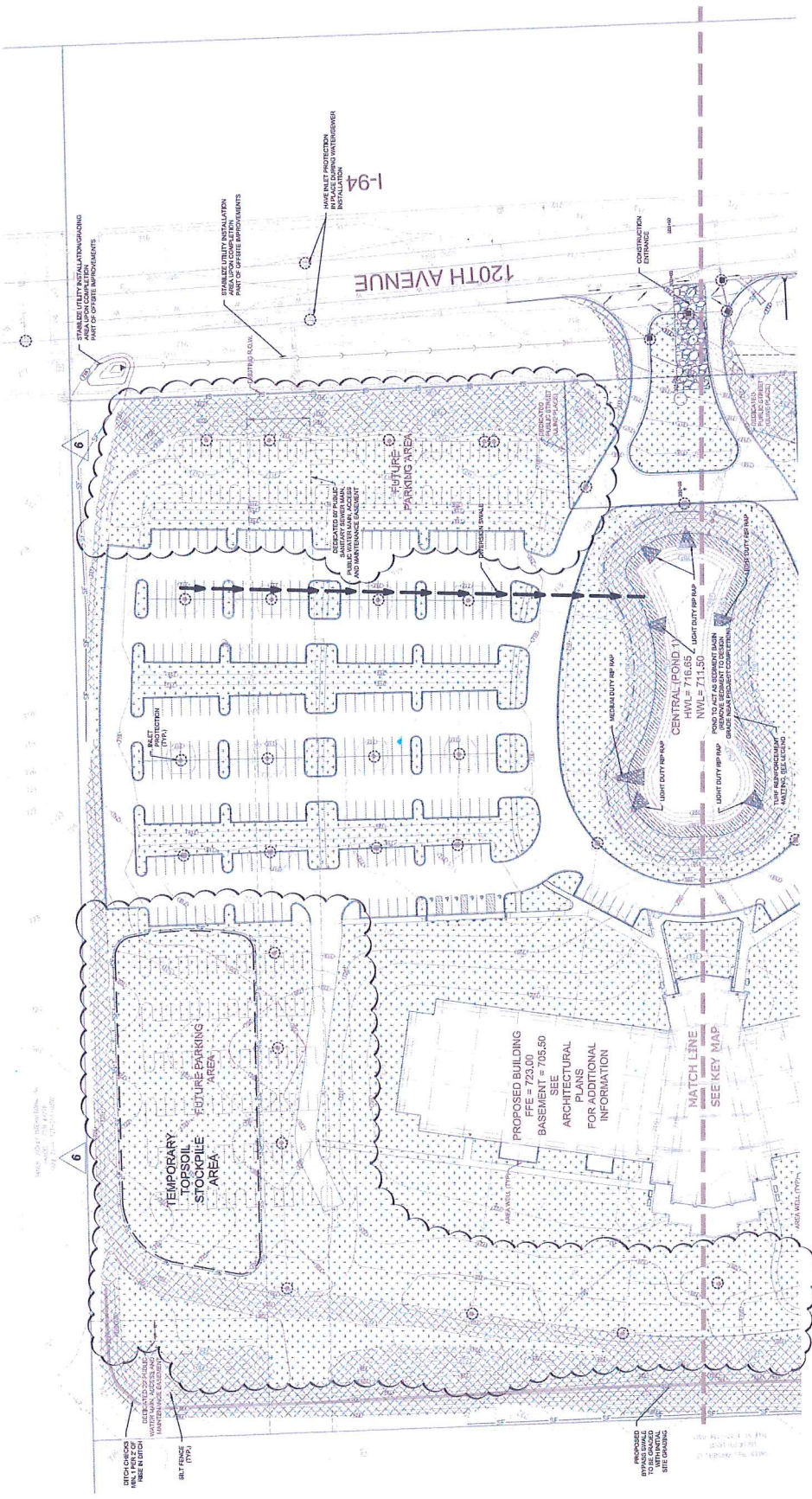
THIS INFORMATION SHOWN ON THIS DRAWING IS THE PROPERTY OF Pinnacle Engineering Group, Inc. and is not to be used, copied, or reproduced in any form without the written consent of Pinnacle Engineering Group, Inc. The information is provided for your information only and is not to be used for any other purpose. The information is provided for your information only and is not to be used for any other purpose. The information is provided for your information only and is not to be used for any other purpose.

- NOTES**
- SEE FIRST SITE STABILIZATION PLAN SHEET FOR GENERAL EROSION AND SEDIMENT CONTROL NOTES.
 - SEE CONSTRUCTION PLAN SHEET FOR GENERAL EROSION AND SEDIMENT CONTROL NOTES.
 - SEE CONSTRUCTION PLAN SHEET FOR GENERAL EROSION AND SEDIMENT CONTROL NOTES.



LEGEND

EXISTING MANHOLE	PROPOSED MANHOLE	PROPOSED CONSTRUCTION ENTRANCE	PROPOSED CONSTRUCTION ENTRANCE
EXISTING WATER LEVEL (HWL)	PROPOSED WATER LEVEL (HWL)	PROPOSED CONSTRUCTION ENTRANCE	PROPOSED CONSTRUCTION ENTRANCE
EXISTING SURFACE ELEVATION	PROPOSED SURFACE ELEVATION	PROPOSED CONSTRUCTION ENTRANCE	PROPOSED CONSTRUCTION ENTRANCE
EXISTING SIDEWALK	PROPOSED SIDEWALK	PROPOSED CONSTRUCTION ENTRANCE	PROPOSED CONSTRUCTION ENTRANCE
EXISTING DRIVEWAY	PROPOSED DRIVEWAY	PROPOSED CONSTRUCTION ENTRANCE	PROPOSED CONSTRUCTION ENTRANCE
EXISTING DRIVEWAY	PROPOSED DRIVEWAY	PROPOSED CONSTRUCTION ENTRANCE	PROPOSED CONSTRUCTION ENTRANCE
EXISTING DRIVEWAY	PROPOSED DRIVEWAY	PROPOSED CONSTRUCTION ENTRANCE	PROPOSED CONSTRUCTION ENTRANCE
EXISTING DRIVEWAY	PROPOSED DRIVEWAY	PROPOSED CONSTRUCTION ENTRANCE	PROPOSED CONSTRUCTION ENTRANCE
EXISTING DRIVEWAY	PROPOSED DRIVEWAY	PROPOSED CONSTRUCTION ENTRANCE	PROPOSED CONSTRUCTION ENTRANCE
EXISTING DRIVEWAY	PROPOSED DRIVEWAY	PROPOSED CONSTRUCTION ENTRANCE	PROPOSED CONSTRUCTION ENTRANCE



REVISIONS

NO.	DATE	DESCRIPTION
1	08/19/13	ISSUED FOR PERMIT
2	08/19/13	ISSUED FOR PERMIT
3	08/19/13	ISSUED FOR PERMIT
4	08/19/13	ISSUED FOR PERMIT
5	08/19/13	ISSUED FOR PERMIT

SITE STABILIZATION PLAN

ULINE CORPORATE CAMPUS H2 FACILITY
PLEASANT PRAIRIE, WI

Pinnacle Engineering Group
1000 W. Wisconsin Ave., Suite 1000, Milwaukee, WI 53233
414.224.1100
www.pinnacle-engr.com

PLAN DESIGN DELIVER

HYDRANT BOLLARD

SCALE: NTS

DETAIL: HW-1

CREATED: 11-15-15
 REVISIONS: 11-15-15

APPROVED BY: MATT FREDER

STANDARD SANITARY MANHOLE

MANHOLE SIZE	MANHOLE FRAME	MANHOLE COVER	MANHOLE RINGS	MANHOLE LINING
18"	18" x 18" x 1.5"	18" x 18" x 1.5"	18" x 18" x 1.5"	18" x 18" x 1.5"
24"	24" x 24" x 1.5"	24" x 24" x 1.5"	24" x 24" x 1.5"	24" x 24" x 1.5"
30"	30" x 30" x 1.5"	30" x 30" x 1.5"	30" x 30" x 1.5"	30" x 30" x 1.5"
36"	36" x 36" x 1.5"	36" x 36" x 1.5"	36" x 36" x 1.5"	36" x 36" x 1.5"
42"	42" x 42" x 1.5"	42" x 42" x 1.5"	42" x 42" x 1.5"	42" x 42" x 1.5"
48"	48" x 48" x 1.5"	48" x 48" x 1.5"	48" x 48" x 1.5"	48" x 48" x 1.5"
54"	54" x 54" x 1.5"	54" x 54" x 1.5"	54" x 54" x 1.5"	54" x 54" x 1.5"
60"	60" x 60" x 1.5"	60" x 60" x 1.5"	60" x 60" x 1.5"	60" x 60" x 1.5"
72"	72" x 72" x 1.5"	72" x 72" x 1.5"	72" x 72" x 1.5"	72" x 72" x 1.5"
84"	84" x 84" x 1.5"	84" x 84" x 1.5"	84" x 84" x 1.5"	84" x 84" x 1.5"
96"	96" x 96" x 1.5"	96" x 96" x 1.5"	96" x 96" x 1.5"	96" x 96" x 1.5"

SCALE: NTS

DETAIL: HW-1

CREATED: 11-15-15
 REVISIONS: 11-15-15

APPROVED BY: MATT FREDER

STANDARD GATE VALVE BOX SETTING

VALVE SIZE	VALVE BOX	VALVE BOX COVER	VALVE BOX LINING
12"	12" x 12" x 1.5"	12" x 12" x 1.5"	12" x 12" x 1.5"
18"	18" x 18" x 1.5"	18" x 18" x 1.5"	18" x 18" x 1.5"
24"	24" x 24" x 1.5"	24" x 24" x 1.5"	24" x 24" x 1.5"
30"	30" x 30" x 1.5"	30" x 30" x 1.5"	30" x 30" x 1.5"
36"	36" x 36" x 1.5"	36" x 36" x 1.5"	36" x 36" x 1.5"
42"	42" x 42" x 1.5"	42" x 42" x 1.5"	42" x 42" x 1.5"
48"	48" x 48" x 1.5"	48" x 48" x 1.5"	48" x 48" x 1.5"
54"	54" x 54" x 1.5"	54" x 54" x 1.5"	54" x 54" x 1.5"
60"	60" x 60" x 1.5"	60" x 60" x 1.5"	60" x 60" x 1.5"
72"	72" x 72" x 1.5"	72" x 72" x 1.5"	72" x 72" x 1.5"
84"	84" x 84" x 1.5"	84" x 84" x 1.5"	84" x 84" x 1.5"
96"	96" x 96" x 1.5"	96" x 96" x 1.5"	96" x 96" x 1.5"

SCALE: NTS

DETAIL: HW-4

CREATED: 11-15-15
 REVISIONS: 11-15-15

APPROVED BY: MATT FREDER

WATER MAIN SEPARATION

SEPARATION SIZE	SEPARATION FRAME	SEPARATION COVER	SEPARATION LINING
18"	18" x 18" x 1.5"	18" x 18" x 1.5"	18" x 18" x 1.5"
24"	24" x 24" x 1.5"	24" x 24" x 1.5"	24" x 24" x 1.5"
30"	30" x 30" x 1.5"	30" x 30" x 1.5"	30" x 30" x 1.5"
36"	36" x 36" x 1.5"	36" x 36" x 1.5"	36" x 36" x 1.5"
42"	42" x 42" x 1.5"	42" x 42" x 1.5"	42" x 42" x 1.5"
48"	48" x 48" x 1.5"	48" x 48" x 1.5"	48" x 48" x 1.5"
54"	54" x 54" x 1.5"	54" x 54" x 1.5"	54" x 54" x 1.5"
60"	60" x 60" x 1.5"	60" x 60" x 1.5"	60" x 60" x 1.5"
72"	72" x 72" x 1.5"	72" x 72" x 1.5"	72" x 72" x 1.5"
84"	84" x 84" x 1.5"	84" x 84" x 1.5"	84" x 84" x 1.5"
96"	96" x 96" x 1.5"	96" x 96" x 1.5"	96" x 96" x 1.5"

SCALE: NTS

DETAIL: HW-2

CREATED: 11-15-15
 REVISIONS: 11-15-15

APPROVED BY: MATT FREDER

THRUST BLOCK

THRUST BLOCK SIZE	THRUST BLOCK FRAME	THRUST BLOCK COVER	THRUST BLOCK LINING
18"	18" x 18" x 1.5"	18" x 18" x 1.5"	18" x 18" x 1.5"
24"	24" x 24" x 1.5"	24" x 24" x 1.5"	24" x 24" x 1.5"
30"	30" x 30" x 1.5"	30" x 30" x 1.5"	30" x 30" x 1.5"
36"	36" x 36" x 1.5"	36" x 36" x 1.5"	36" x 36" x 1.5"
42"	42" x 42" x 1.5"	42" x 42" x 1.5"	42" x 42" x 1.5"
48"	48" x 48" x 1.5"	48" x 48" x 1.5"	48" x 48" x 1.5"
54"	54" x 54" x 1.5"	54" x 54" x 1.5"	54" x 54" x 1.5"
60"	60" x 60" x 1.5"	60" x 60" x 1.5"	60" x 60" x 1.5"
72"	72" x 72" x 1.5"	72" x 72" x 1.5"	72" x 72" x 1.5"
84"	84" x 84" x 1.5"	84" x 84" x 1.5"	84" x 84" x 1.5"
96"	96" x 96" x 1.5"	96" x 96" x 1.5"	96" x 96" x 1.5"

SCALE: NTS

DETAIL: HW-3A

CREATED: 11-15-15
 REVISIONS: 11-15-15

APPROVED BY: MATT FREDER

PALMER-BOWLUS FLUME DETAIL

FLUME SIZE	FLUME FRAME	FLUME COVER	FLUME LINING
18"	18" x 18" x 1.5"	18" x 18" x 1.5"	18" x 18" x 1.5"
24"	24" x 24" x 1.5"	24" x 24" x 1.5"	24" x 24" x 1.5"
30"	30" x 30" x 1.5"	30" x 30" x 1.5"	30" x 30" x 1.5"
36"	36" x 36" x 1.5"	36" x 36" x 1.5"	36" x 36" x 1.5"
42"	42" x 42" x 1.5"	42" x 42" x 1.5"	42" x 42" x 1.5"
48"	48" x 48" x 1.5"	48" x 48" x 1.5"	48" x 48" x 1.5"
54"	54" x 54" x 1.5"	54" x 54" x 1.5"	54" x 54" x 1.5"
60"	60" x 60" x 1.5"	60" x 60" x 1.5"	60" x 60" x 1.5"
72"	72" x 72" x 1.5"	72" x 72" x 1.5"	72" x 72" x 1.5"
84"	84" x 84" x 1.5"	84" x 84" x 1.5"	84" x 84" x 1.5"
96"	96" x 96" x 1.5"	96" x 96" x 1.5"	96" x 96" x 1.5"

SCALE: NTS

DETAIL: HW-2

CREATED: 11-15-15
 REVISIONS: 11-15-15

APPROVED BY: MATT FREDER

STANDARD HYDRANT ASSEMBLY

HYDRANT SIZE	HYDRANT FRAME	HYDRANT COVER	HYDRANT LINING
12"	12" x 12" x 1.5"	12" x 12" x 1.5"	12" x 12" x 1.5"
18"	18" x 18" x 1.5"	18" x 18" x 1.5"	18" x 18" x 1.5"
24"	24" x 24" x 1.5"	24" x 24" x 1.5"	24" x 24" x 1.5"
30"	30" x 30" x 1.5"	30" x 30" x 1.5"	30" x 30" x 1.5"
36"	36" x 36" x 1.5"	36" x 36" x 1.5"	36" x 36" x 1.5"
42"	42" x 42" x 1.5"	42" x 42" x 1.5"	42" x 42" x 1.5"
48"	48" x 48" x 1.5"	48" x 48" x 1.5"	48" x 48" x 1.5"
54"	54" x 54" x 1.5"	54" x 54" x 1.5"	54" x 54" x 1.5"
60"	60" x 60" x 1.5"	60" x 60" x 1.5"	60" x 60" x 1.5"
72"	72" x 72" x 1.5"	72" x 72" x 1.5"	72" x 72" x 1.5"
84"	84" x 84" x 1.5"	84" x 84" x 1.5"	84" x 84" x 1.5"
96"	96" x 96" x 1.5"	96" x 96" x 1.5"	96" x 96" x 1.5"

SCALE: NTS

DETAIL: HW-1

CREATED: 11-15-15
 REVISIONS: 11-15-15

APPROVED BY: MATT FREDER

TRACER WIRE ACCESS BOX

ACCESS BOX SIZE	ACCESS BOX FRAME	ACCESS BOX COVER	ACCESS BOX LINING
18"	18" x 18" x 1.5"	18" x 18" x 1.5"	18" x 18" x 1.5"
24"	24" x 24" x 1.5"	24" x 24" x 1.5"	24" x 24" x 1.5"
30"	30" x 30" x 1.5"	30" x 30" x 1.5"	30" x 30" x 1.5"
36"	36" x 36" x 1.5"	36" x 36" x 1.5"	36" x 36" x 1.5"
42"	42" x 42" x 1.5"	42" x 42" x 1.5"	42" x 42" x 1.5"
48"	48" x 48" x 1.5"	48" x 48" x 1.5"	48" x 48" x 1.5"
54"	54" x 54" x 1.5"	54" x 54" x 1.5"	54" x 54" x 1.5"
60"	60" x 60" x 1.5"	60" x 60" x 1.5"	60" x 60" x 1.5"
72"	72" x 72" x 1.5"	72" x 72" x 1.5"	72" x 72" x 1.5"
84"	84" x 84" x 1.5"	84" x 84" x 1.5"	84" x 84" x 1.5"
96"	96" x 96" x 1.5"	96" x 96" x 1.5"	96" x 96" x 1.5"

SCALE: NTS

DETAIL: TW-1

CREATED: 11-15-15
 REVISIONS: 11-15-15

APPROVED BY: MATT FREDER

CATCH BASIN

CATCH BASIN SIZE	CATCH BASIN FRAME	CATCH BASIN COVER	CATCH BASIN LINING
18"	18" x 18" x 1.5"	18" x 18" x 1.5"	18" x 18" x 1.5"
24"	24" x 24" x 1.5"	24" x 24" x 1.5"	24" x 24" x 1.5"
30"	30" x 30" x 1.5"	30" x 30" x 1.5"	30" x 30" x 1.5"
36"	36" x 36" x 1.5"	36" x 36" x 1.5"	36" x 36" x 1.5"
42"	42" x 42" x 1.5"	42" x 42" x 1.5"	42" x 42" x 1.5"
48"	48" x 48" x 1.5"	48" x 48" x 1.5"	48" x 48" x 1.5"
54"	54" x 54" x 1.5"	54" x 54" x 1.5"	54" x 54" x 1.5"
60"	60" x 60" x 1.5"	60" x 60" x 1.5"	60" x 60" x 1.5"
72"	72" x 72" x 1.5"	72" x 72" x 1.5"	72" x 72" x 1.5"
84"	84" x 84" x 1.5"	84" x 84" x 1.5"	84" x 84" x 1.5"
96"	96" x 96" x 1.5"	96" x 96" x 1.5"	96" x 96" x 1.5"

SCALE: NTS

DETAIL: TW-1

CREATED: 11-15-15
 REVISIONS: 11-15-15

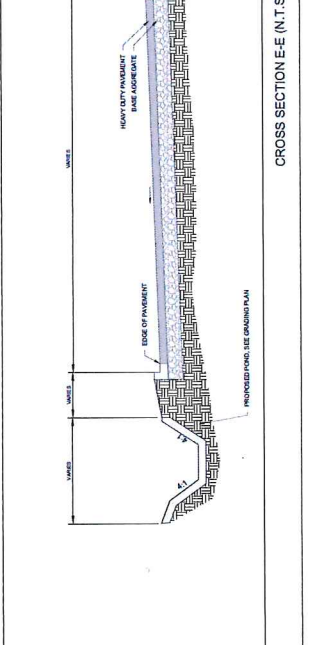
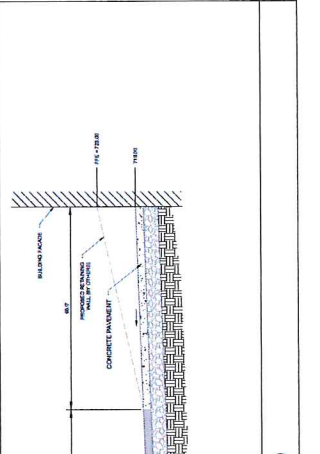
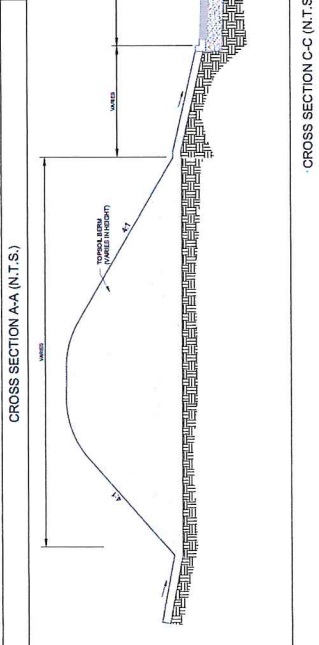
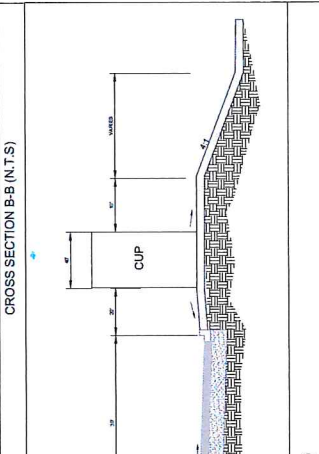
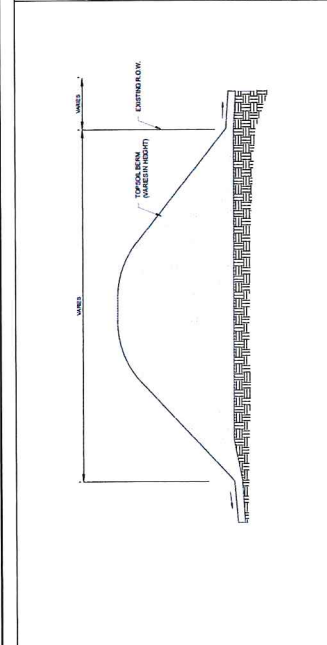
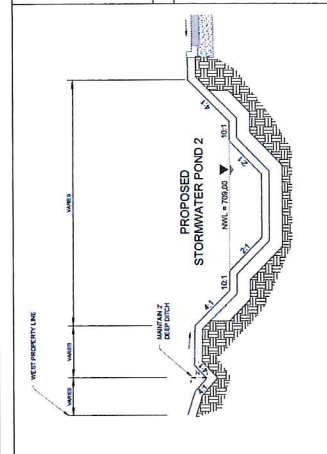
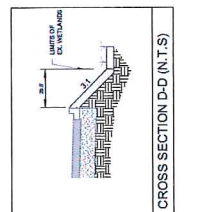
APPROVED BY: MATT FREDER

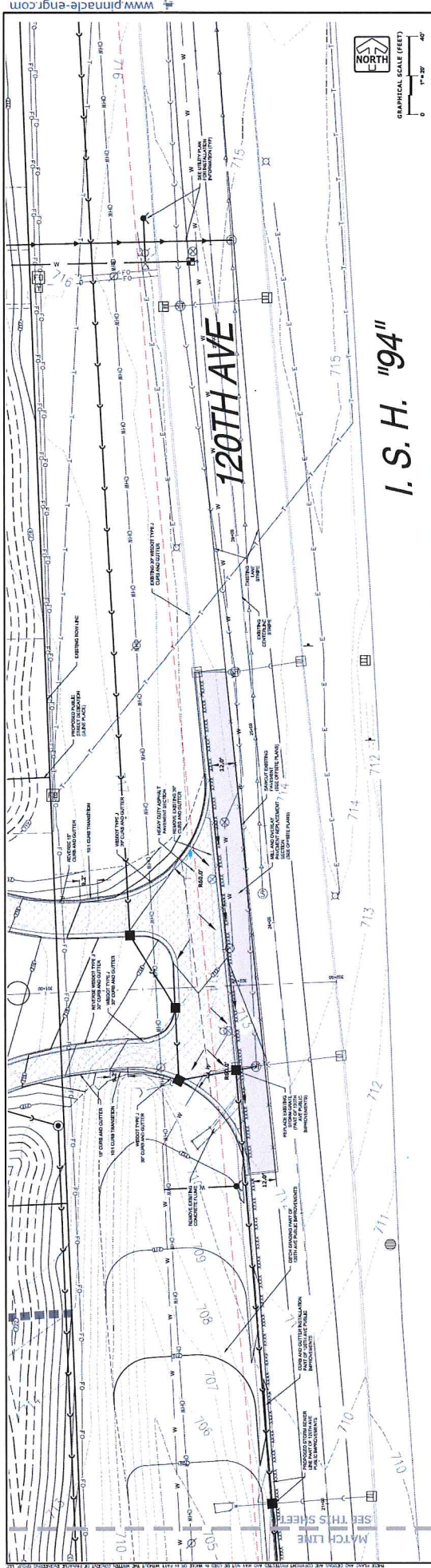
SHEET		C-25		C-26	
SCALE		AS SHOWN		AS SHOWN	
DATE		08/15/18		08/15/18	
DRAWN BY		JAS		JAS	
CHECKED BY		JAS		JAS	
APPROVED BY		JAS		JAS	
REVISIONS		REVISIONS		REVISIONS	
1.	REVISION	1.	REVISION	1.	REVISION
2.	REVISION	2.	REVISION	2.	REVISION
3.	REVISION	3.	REVISION	3.	REVISION
4.	REVISION	4.	REVISION	4.	REVISION
5.	REVISION	5.	REVISION	5.	REVISION

CONSTRUCTION DETAILS

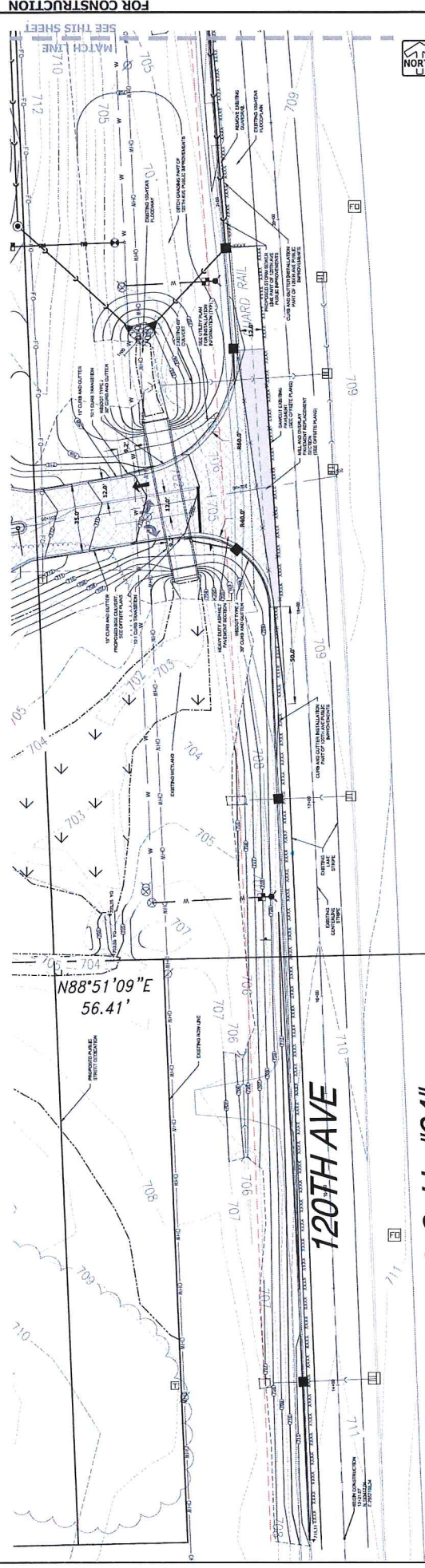
ULINE CORPORATE CAMPUS H2 FACILITY
PLEASANT PRAIRIE, WI


PINNACLE ENGINEERING GROUP
 CONSULTING ENGINEERS AND ARCHITECTS
 1515 WISCONSIN STREET, SUITE 200
 MILWAUKEE, WISCONSIN 53233
 TEL: 414.224.2200 FAX: 414.224.2201
 WWW.PINNACLE-ENGR.COM





CENTRAL DRIVEWAY ENTRANCE- GRADING AND PAVING (SEE OFFSITE PLANS)



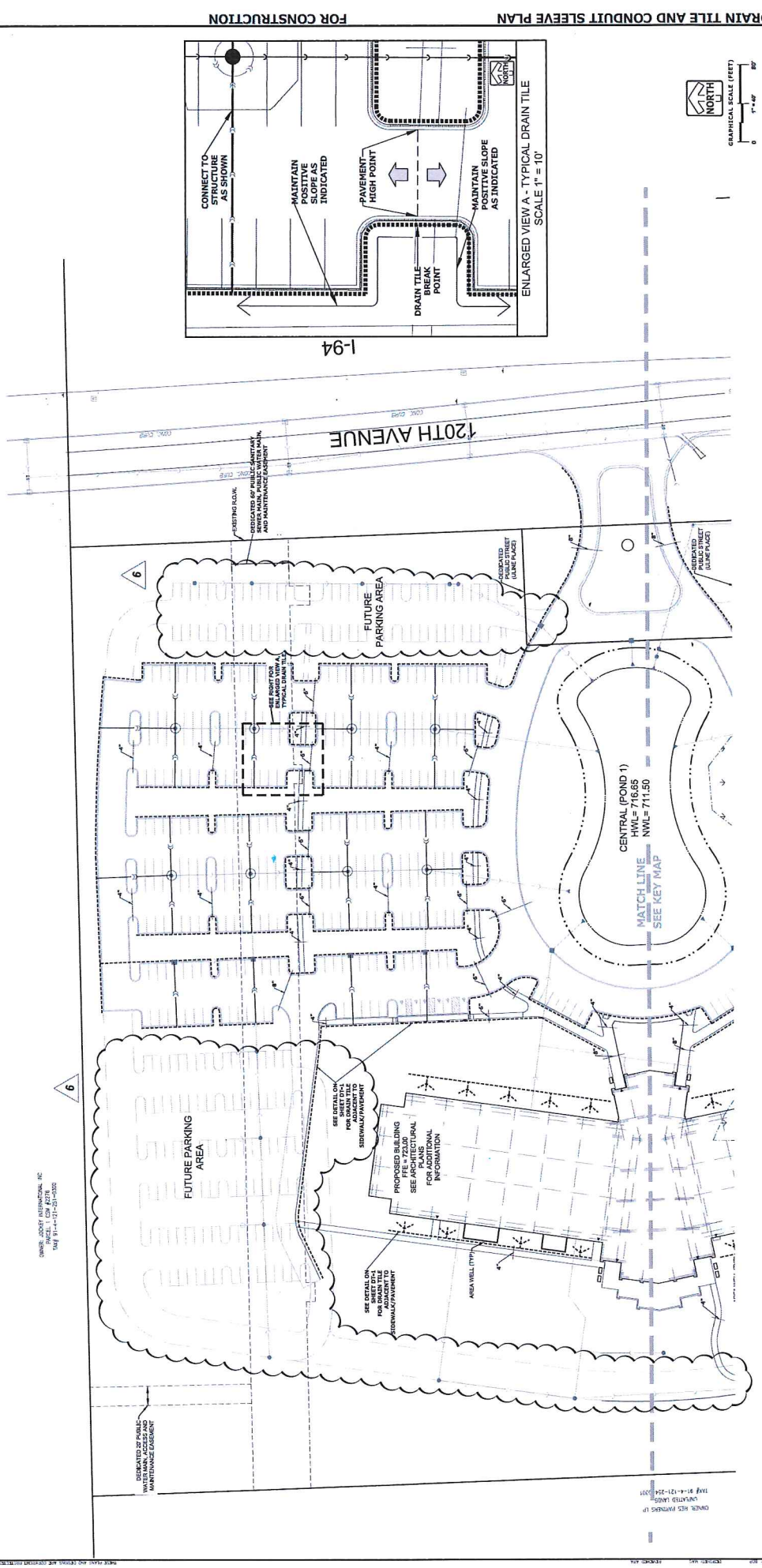
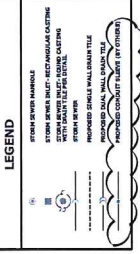
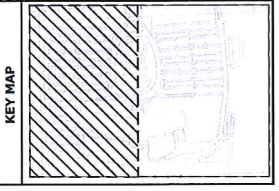
SOUTHEAST DRIVEWAY ENTRANCE- GRADING AND PAVING (SEE OFFSITE PLANS)

PINNACLE ENGINEERING GROUP <small>INCORPORATED</small> <small>10000 W. 120th Ave., Suite 100, Overland Park, KS 66204</small> <small>TEL: 913.241.1111 FAX: 913.241.1112</small>	PLAN DESIGN / DELIVER <small>DATE: 08/14/2013</small> <small>BY: [Signature]</small>	ULINE CORPORATE CAMPUS H2 FACILITY PLEASANT PRAIRIE, WI	CONSTRUCTION DETAILS	REVISIONS																											
	<table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> <th>CHKD</th> </tr> <tr> <td>1</td> <td></td> <td>ISSUED FOR PERMIT</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td>ISSUED FOR CONSTRUCTION</td> <td></td> <td></td> </tr> </table>			NO.	DATE	DESCRIPTION	BY	CHKD	1		ISSUED FOR PERMIT			2		ISSUED FOR CONSTRUCTION			<table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> <th>CHKD</th> </tr> <tr> <td>1</td> <td></td> <td>ISSUED FOR PERMIT</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td>ISSUED FOR CONSTRUCTION</td> <td></td> <td></td> </tr> </table>	NO.	DATE	DESCRIPTION	BY	CHKD	1		ISSUED FOR PERMIT			2	
NO.	DATE	DESCRIPTION	BY	CHKD																											
1		ISSUED FOR PERMIT																													
2		ISSUED FOR CONSTRUCTION																													
NO.	DATE	DESCRIPTION	BY	CHKD																											
1		ISSUED FOR PERMIT																													
2		ISSUED FOR CONSTRUCTION																													
SHEET C-26 <small>DATE: 08/14/2013</small> <small>BY: [Signature]</small>		CONSTRUCTION DETAILS		C-26																											

1. LOCATION OF THE INFORMATION LISTED HEREIN IS AS SHOWN ON THE PLAN SHEET. THE USER OF THIS INFORMATION SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF THE INFORMATION AND FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER OF THIS INFORMATION SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER OF THIS INFORMATION SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

OWNER: ULINE CORPORATION, INC.
 PROJECT: CON #2728
 MAY 11-14-17 15-1-1300

- NOTES**
1. SEE FIRST UTILITY DRAIN TILE PLAN SHEET FOR UTILITY DRAIN TILE
 2. SEE CONSTRUCTION DETAILS SECTION FOR ADDITIONAL INFORMATION PERTAINING TO THE UTILITY DRAIN TILE PLAN.



PINNACLE ENGINEERING GROUP
 1000 W. WISCONSIN AVENUE, SUITE 200
 MILWAUKEE, WI 53233
 TEL: 414-224-1234 FAX: 414-224-1235
 WWW.PINNACLE-ENG.COM

PLAN DESIGN DELIVER
 PRELIMINARY DESIGN
 PRELIMINARY PERMITS
 PRELIMINARY CONTRACT DOCUMENTS
 PRELIMINARY CONSTRUCTION

UTILITY DRAIN TILE AND CONDUIT SLEEVE PLAN

**ULINE CORPORATE CAMPUS H2 FACILITY
 PLEASANT PRAIRIE, WI**

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHECKED
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

DRIVER: KEE FRANKS (P)
DATE: 05/11/17
SCALE: 1" = 10'

SHEET DT-2 OF DT-3

GRAPHICAL SCALE (FEET)
 0 10 20 30

NORTH

**ENLARGED VIEW A - TYPICAL DRAIN TILE
 SCALE 1" = 10'**

FOR CONSTRUCTION

SHEET
C-3
of
C-14

SCALE: 1" = 20'

DATE: 08/25/15

BY: [Redacted]

NO. 119.00A

PROJECT: [Redacted]

REVISIONS

NO.	DATE	DESCRIPTION

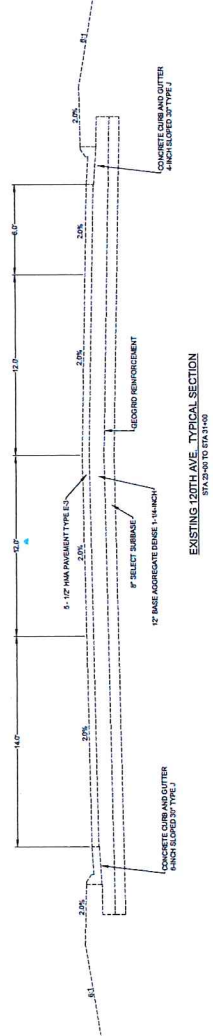
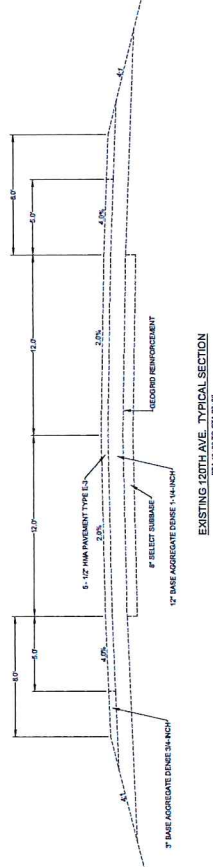
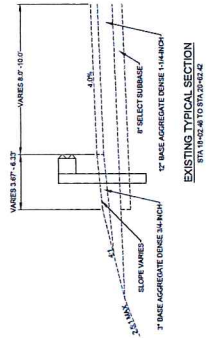
EXISTING TYPICAL SECTIONS

H2 OFFSITE ROADWAY
PLEASANT PRAIRIE, WI

PLAN | DESIGN | DELIVER
www.pinnacle-engineering.com

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN PROFESSIONAL ENGINEERING NO. 10000
REGISTERED PROFESSIONAL SURVEYOR NO. 10000
CHICAGO, ILLINOIS | PLEASANT PRAIRIE, WISCONSIN



SHEET
C-4
of
C-14

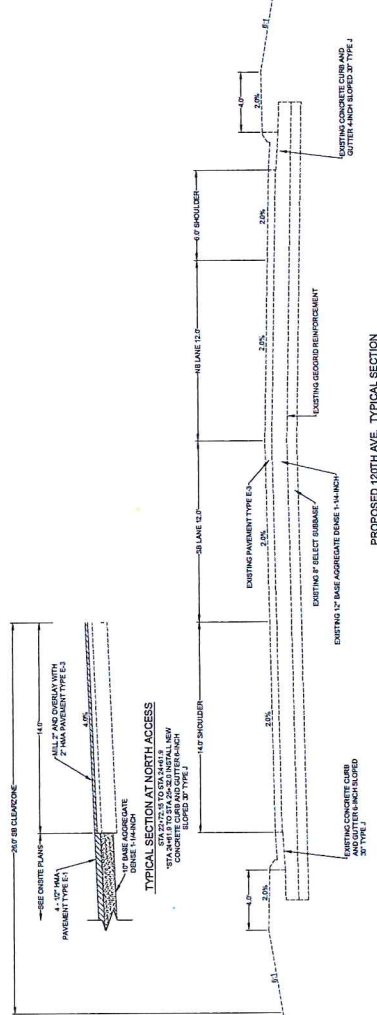
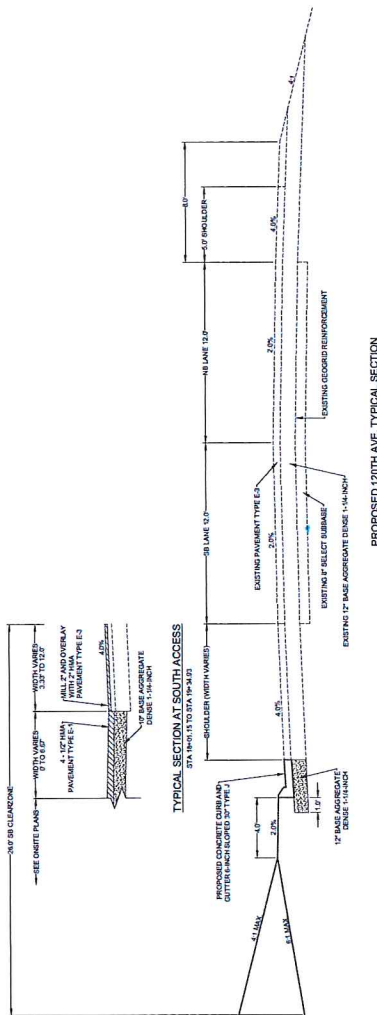
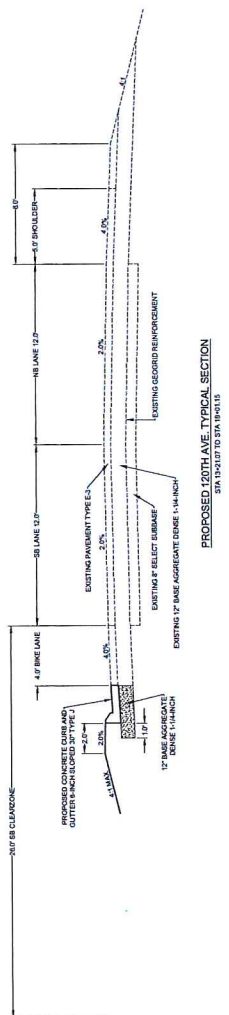
NO. 208 NO. 119.00A
ASB
DATE 09/25/15

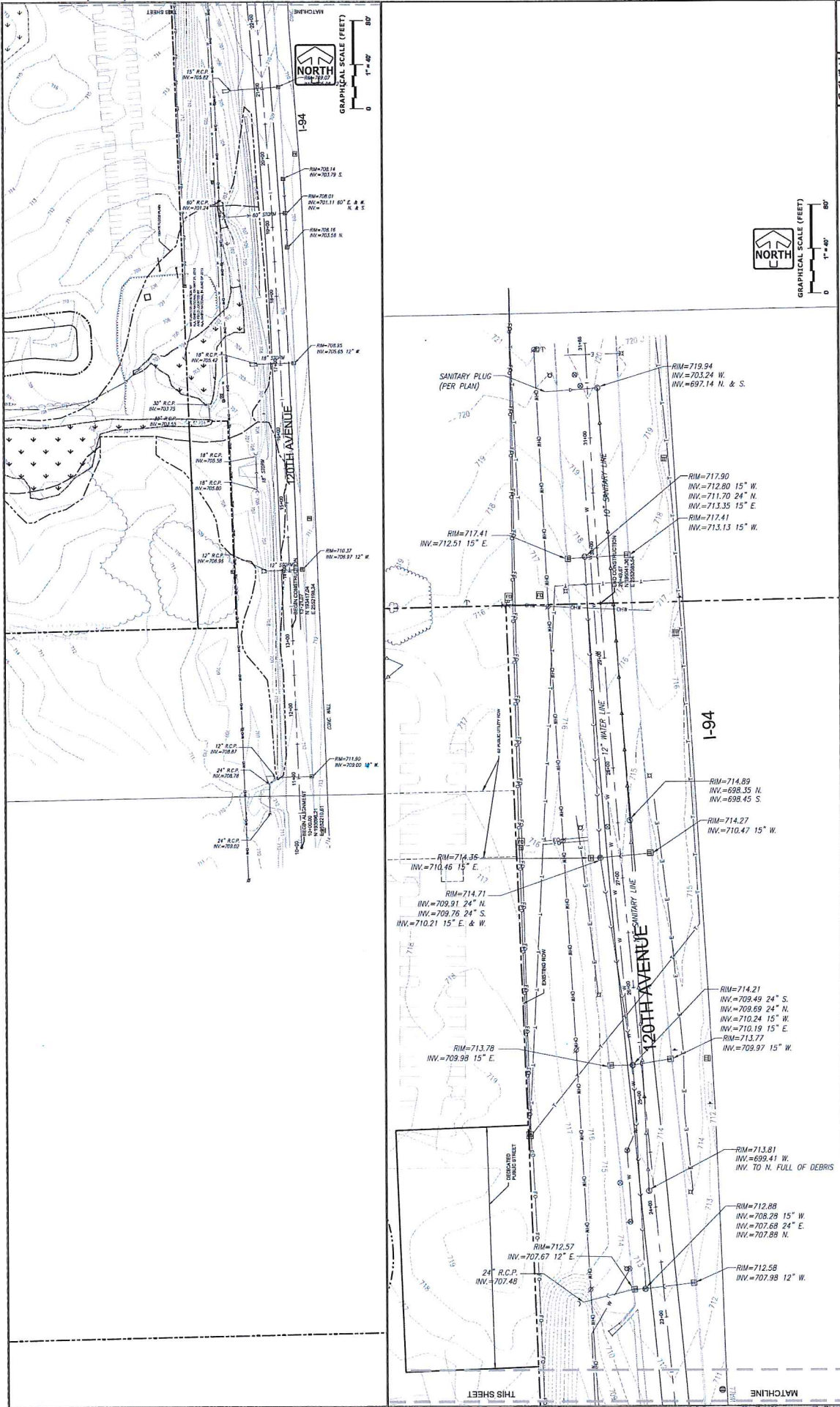
NO.	DATE	BY	REVISIONS
1			ISSUED FOR CONSTRUCTION
2			FOR REVISIONS
3			FOR REVISIONS
4			FOR REVISIONS

PROPOSED TYPICAL SECTIONS

H2 OFFSITE ROADWAY
PLEASANT PRAIRIE, WI


PINNACLE ENGINEERING GROUP
 ENGINEERING | NATURAL RESOURCES | SURVEYING
 PLAN | DESIGN | DELIVER
 www.pinnacle-engr.com
 WISCONSIN OFFICE
 2001 WISCONSIN AVENUE, SUITE 200
 PLEASANT PRAIRIE, WI 53091
 (262) 331-1100
 CHICAGO OFFICE
 100 N. LAKE STREET, SUITE 1000
 CHICAGO, IL 60602





SHEET	C-5
OF	C-14
SCALE	1" = 40'
DATE	11/15/15
BY	MS
CHECKED	MS
DATE	11/15/15

REVISIONS	
NO.	DESCRIPTION

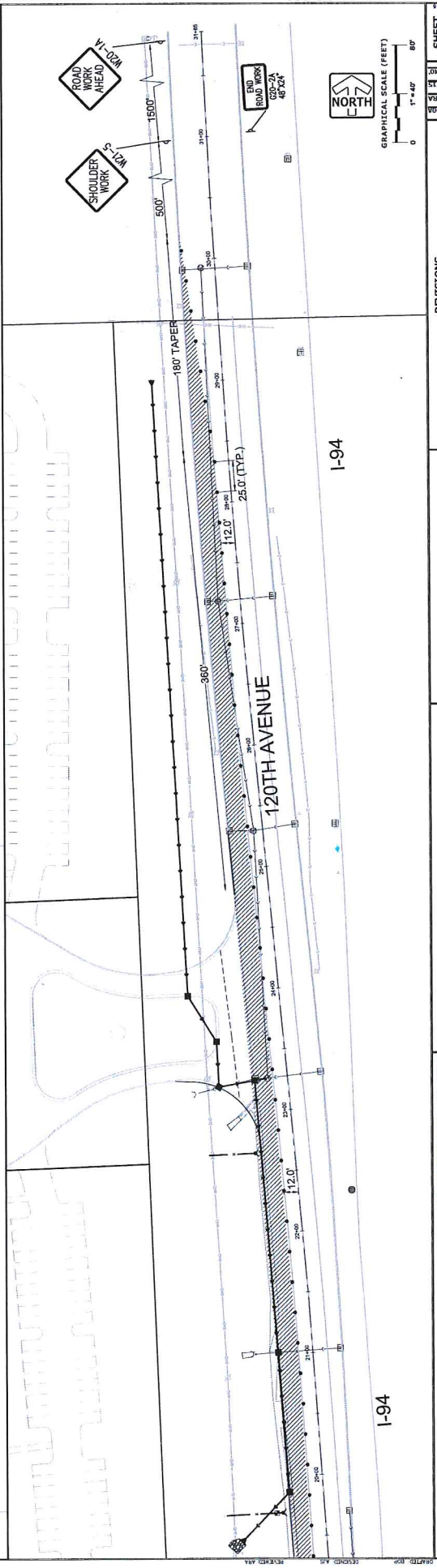
**EXISTING CONDITIONS
SITE PLAN**

**H2 OFFSITE ROADWAY
PLEASANT PRAIRIE, WI**

PLAN I DESIGN I DELIVER
WWW.PINNACLE-ENGR.COM

PINNACLE ENGINEERING GROUP
ENGINEERS | ARCHITECTS | SURVEYORS

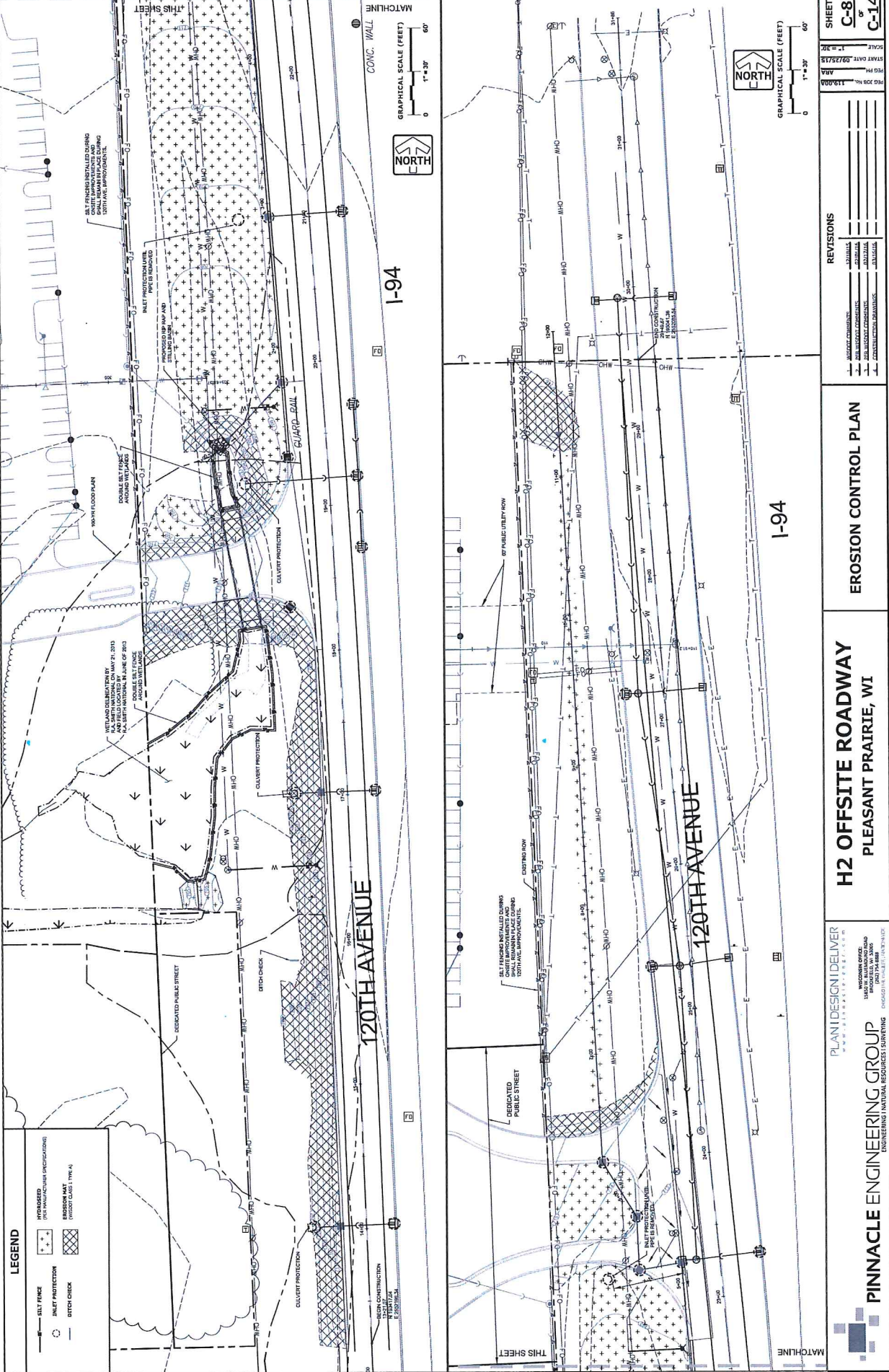
120TH AVENUE
PLEASANT PRAIRIE, WI 53153
TEL: 262.333.8888
WWW.PINNACLE-ENGR.COM



TRAFFIC CONTROL PLAN		H2 OFFSITE ROADWAY PLEASANT PRAIRIE, WI	
SHEET C-6 OF C-14		REVISIONS _____ _____ _____ _____ _____	
PLAN I DESIGN I DELIVER WWW.PINNACLE-ENG.COM WISCONSIN OFFICE 2500 WISCONSIN DRIVE WISCONSIN, WI 53090 (262) 754-8888		PINNACLE ENGINEERING GROUP ENGINEERING NATIONAL RESOURCES SURVEYING OFFSHORE MARINE TRANSPORTATION	

FOR CONSTRUCTION

TRAFFIC CONTROL PLAN



SHEET	C-8
PROJECT	H2 OFFSITE ROADWAY
DATE	09/25/15
SCALE	1" = 30'
DESIGNER	PLANIDELIVER
CHECKER	PLANIDELIVER
APPROVER	PLANIDELIVER

REVISIONS	
NO.	DESCRIPTION
1	ISSUED FOR PERMIT
2	ISSUED FOR PERMIT
3	ISSUED FOR PERMIT
4	ISSUED FOR PERMIT

EROSION CONTROL PLAN

H2 OFFSITE ROADWAY PLEASANT PRAIRIE, WI

PLANIDELIVER
WWW.PLANIDELIVER.COM

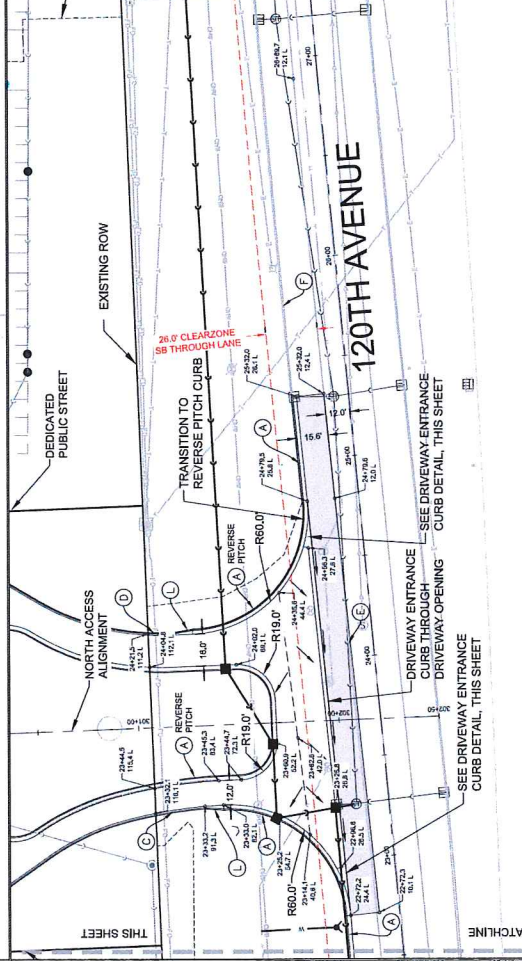
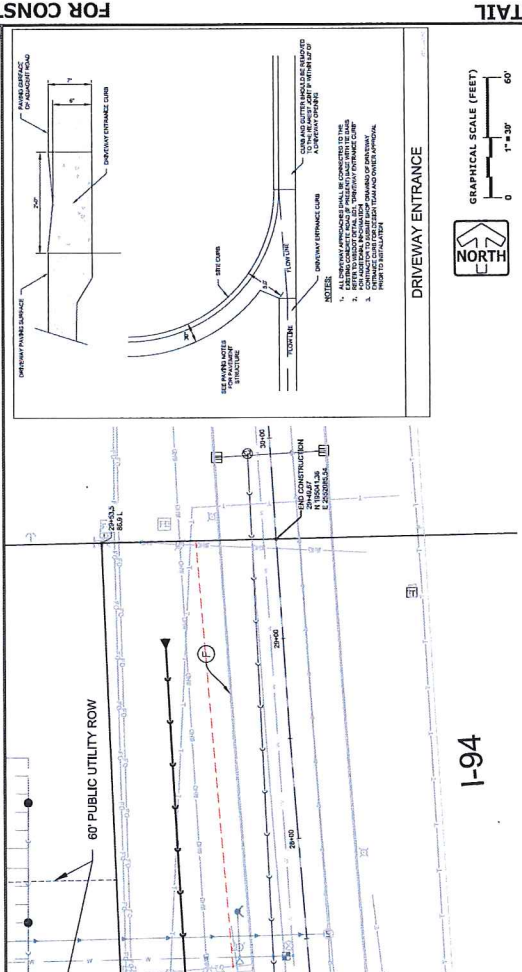
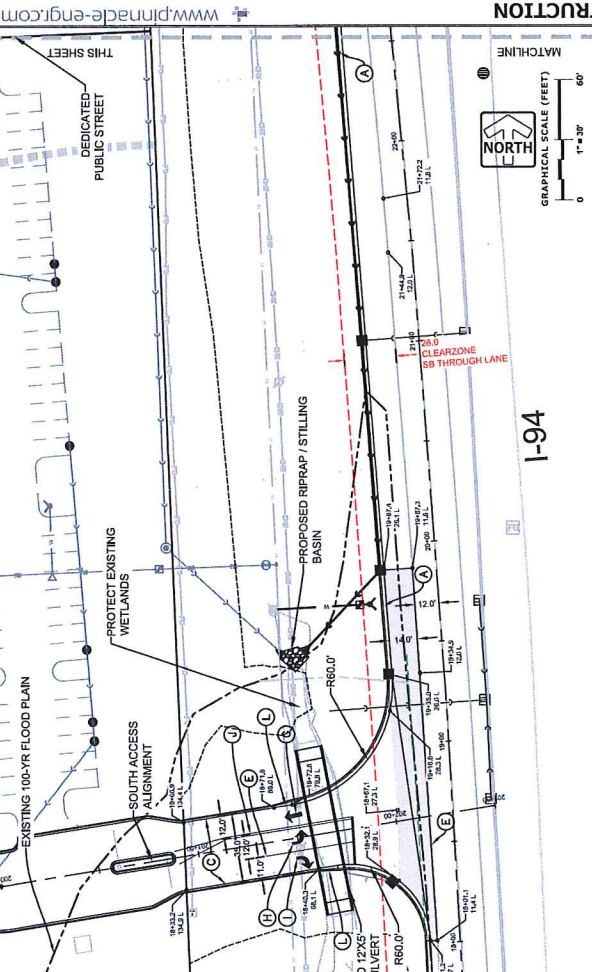
PINNACLE ENGINEERING GROUP
INCORPORATED
1000 W. WISCONSIN STREET
PLEASANT PRAIRIE, WI 53158
TEL: 262.338.1100
WWW.PINNACLE-ENG.COM

ENGINEERING | NATURAL RESOURCES CONSULTING

LEGEND

	1/2" DRIVEWAY ENTRANCE		PROTECT EXISTING CURB & GUTTER
	2" CURB AND GUTTER		ARROW, WHITE
	4" SOLID WHITE STRIPE		LEFT TURN ARROW, WHITE
	4" SOLID WHITE STRIPE		RIGHT TURN ARROW, WHITE
	15" CURB AND GUTTER		DOUBLE 4" LINE, WHITE
	15" CURB AND GUTTER (TO MATCH ORIENT DETAIL)		18" STOP BAR, WHITE
	15" CURB AND GUTTER (TO MATCH ORIENT DETAIL)		TRANSITION FROM 15" TO 30" CONCRETE CURB AND GUTTER SECTION AT 50:1 TAPER

WETLAND DELINEATION BY R.A. SMITH NATIONAL ON MAY 21, 2013 AND FIELD LOCATED BY R.A. SMITH NATIONAL IN JUNE OF 2013



FOR CONSTRUCTION

PLAN DETAIL

H2 OFFSITE ROADWAY
PLEASANT PRAIRIE, WI

PINNACLE ENGINEERING GROUP
CONCRETE / MATERIALS / SURFING

PLANIDESIGN/DELIVER
WWW.PINNACLE-ENG.COM

REVISIONS

NO.	DATE	DESCRIPTION
1	09/25/15	ISSUED FOR PERMITS
2		REVISED PER COMMENTS
3		REVISED PER COMMENTS
4		REVISED PER COMMENTS
5		REVISED PER COMMENTS

DRIVEWAY ENTRANCE

1. ALL DRIVEWAY ENTRANCES SHALL BE CONNECTED TO THE EXISTING DRIVEWAY ENTRANCE CURB AND GUTTER SECTION.
2. REFER TO DETAIL FOR CURB AND GUTTER SECTION.
3. REFER TO DETAIL FOR DRIVEWAY ENTRANCE CURB AND GUTTER SECTION.
4. REFER TO DETAIL FOR DRIVEWAY ENTRANCE CURB AND GUTTER SECTION.
5. REFER TO DETAIL FOR DRIVEWAY ENTRANCE CURB AND GUTTER SECTION.

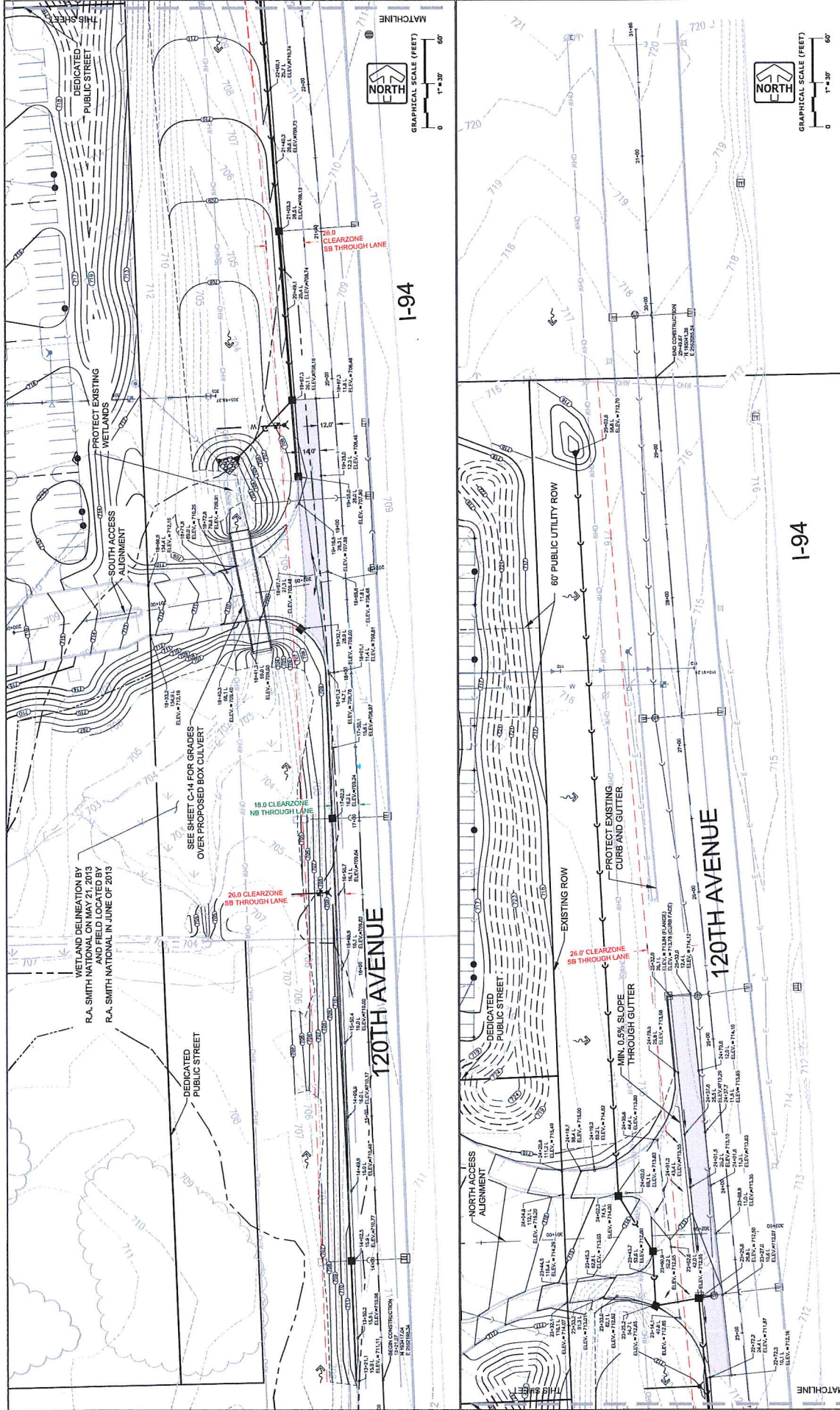
DRIVEWAY ENTRANCE CURB DETAIL

GRAPHICAL SCALE (FEET)
1" = 30'

SHEET C-9 OF C-14

DATE: 09/25/15
SCALE: 1" = 30'
DRAWN: JMA
CHECKED: JMA
PROJECT NO.: 15060A

THIS SHEET MATCHLINE



WETLAND DELINEATION BY
R.A. SMITH NATIONAL ON MAY 21, 2013
AND FIELD LOCATED BY
R.A. SMITH NATIONAL IN JUNE OF 2013

SEE SHEET C-14 FOR GRADES
OVER PROPOSED BOX CULVERT

120TH AVENUE

I-94

120TH AVENUE

I-94



SHEET	C-10
OF	C-14
DATE	09/25/15
SCALE	1" = 30'
AREA	113,000
PROJECT	H2 OFFSITE ROADWAY
LOCATION	PLEASANT PRAIRIE, WI
DESIGNER	Pinnacle Engineering Group
CHECKER	
APPROVER	

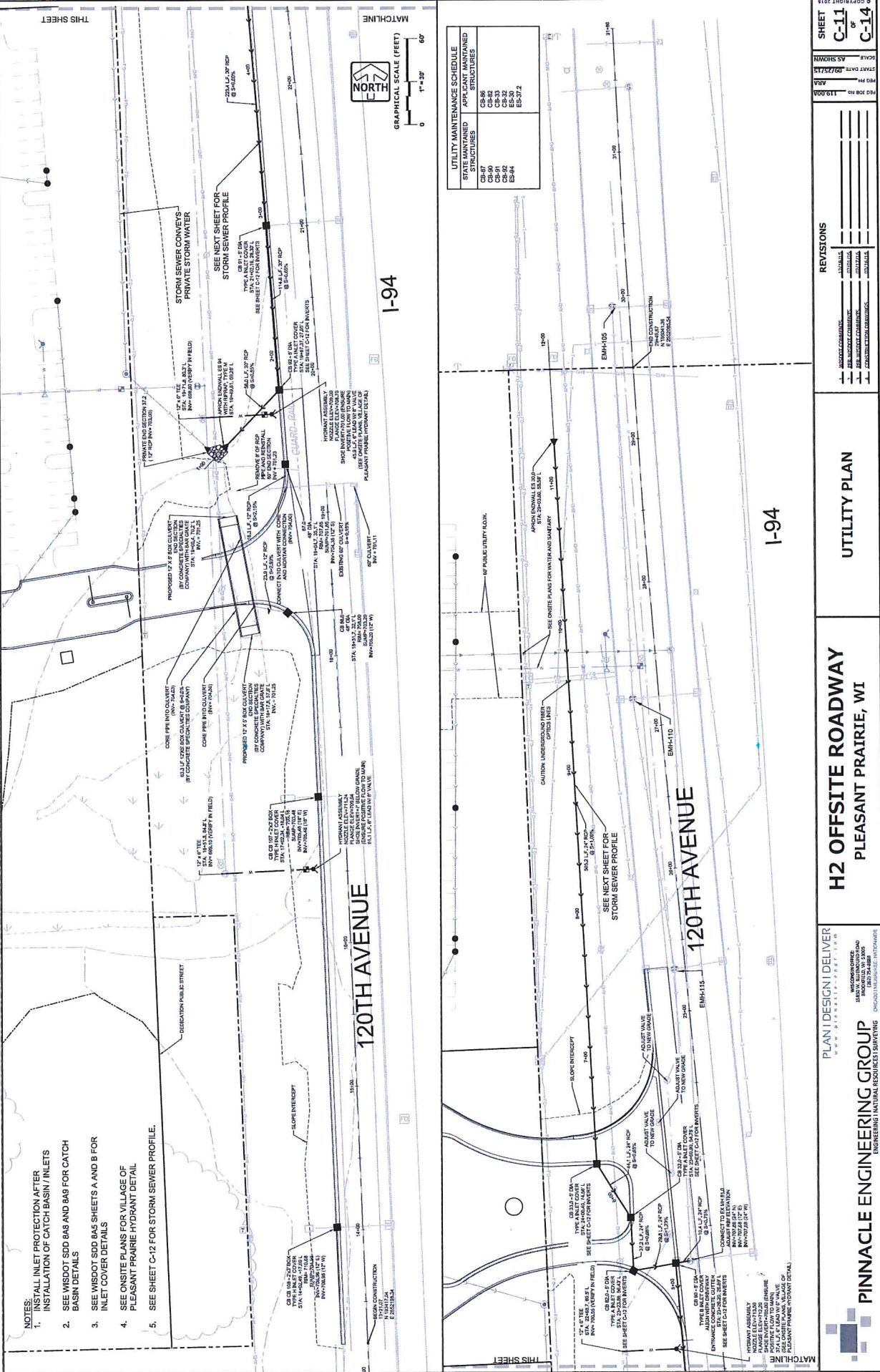
REVISIONS
1. INITIALS
2. INITIALS
3. INITIALS
4. INITIALS
5. INITIALS

**H2 OFFSITE ROADWAY
PLEASANT PRAIRIE, WI**

Pinnacle Engineering Group
ENGINEERING | NATURAL RESOURCES | SURVEYING

PLANNING DESIGN | DELIVER

120TH AVENUE
PLEASANT PRAIRIE, WI



SHEET C-11 & C-14

DATE 07/27/24

SCALE AS SHOWN

NO. 119.00A

REVISIONS

NO.	DATE	DESCRIPTION

UTILITY PLAN

H2 OFFSITE ROADWAY PLEASANT PRAIRIE, WI

PLAN I DESIGN I DELIVER

www.pinnacle-engineering.com

WISCONSIN LICENSE NO. 1000000000

ILLINOIS LICENSE NO. 1200000000

INDIANA LICENSE NO. 1300000000

MINNESOTA LICENSE NO. 1400000000

NEBRASKA LICENSE NO. 1500000000

OHIO LICENSE NO. 1600000000

OKLAHOMA LICENSE NO. 1700000000

OREGON LICENSE NO. 1800000000

PENNSYLVANIA LICENSE NO. 1900000000

RHODE ISLAND LICENSE NO. 2000000000

TENNESSEE LICENSE NO. 2100000000

TEXAS LICENSE NO. 2200000000

UTAH LICENSE NO. 2300000000

VIRGINIA LICENSE NO. 2400000000

WASHINGTON LICENSE NO. 2500000000

WEST VIRGINIA LICENSE NO. 2600000000

WISCONSIN LICENSE NO. 2700000000

MISSOURI LICENSE NO. 2800000000

NEBRASKA LICENSE NO. 2900000000

OKLAHOMA LICENSE NO. 3000000000

INDIANA LICENSE NO. 3100000000

MINNESOTA LICENSE NO. 3200000000

NEBRASKA LICENSE NO. 3300000000

OKLAHOMA LICENSE NO. 3400000000

INDIANA LICENSE NO. 3500000000

MINNESOTA LICENSE NO. 3600000000

NEBRASKA LICENSE NO. 3700000000

OKLAHOMA LICENSE NO. 3800000000

INDIANA LICENSE NO. 3900000000

MINNESOTA LICENSE NO. 4000000000

NEBRASKA LICENSE NO. 4100000000

OKLAHOMA LICENSE NO. 4200000000

INDIANA LICENSE NO. 4300000000

MINNESOTA LICENSE NO. 4400000000

NEBRASKA LICENSE NO. 4500000000

OKLAHOMA LICENSE NO. 4600000000

INDIANA LICENSE NO. 4700000000

MINNESOTA LICENSE NO. 4800000000

NEBRASKA LICENSE NO. 4900000000

OKLAHOMA LICENSE NO. 5000000000

INDIANA LICENSE NO. 5100000000

MINNESOTA LICENSE NO. 5200000000

NEBRASKA LICENSE NO. 5300000000

OKLAHOMA LICENSE NO. 5400000000

INDIANA LICENSE NO. 5500000000

MINNESOTA LICENSE NO. 5600000000

NEBRASKA LICENSE NO. 5700000000

OKLAHOMA LICENSE NO. 5800000000

INDIANA LICENSE NO. 5900000000

MINNESOTA LICENSE NO. 6000000000

NEBRASKA LICENSE NO. 6100000000

OKLAHOMA LICENSE NO. 6200000000

INDIANA LICENSE NO. 6300000000

MINNESOTA LICENSE NO. 6400000000

NEBRASKA LICENSE NO. 6500000000

OKLAHOMA LICENSE NO. 6600000000

INDIANA LICENSE NO. 6700000000

MINNESOTA LICENSE NO. 6800000000

NEBRASKA LICENSE NO. 6900000000

OKLAHOMA LICENSE NO. 7000000000

INDIANA LICENSE NO. 7100000000

MINNESOTA LICENSE NO. 7200000000

NEBRASKA LICENSE NO. 7300000000

OKLAHOMA LICENSE NO. 7400000000

INDIANA LICENSE NO. 7500000000

MINNESOTA LICENSE NO. 7600000000

NEBRASKA LICENSE NO. 7700000000

OKLAHOMA LICENSE NO. 7800000000

INDIANA LICENSE NO. 7900000000

MINNESOTA LICENSE NO. 8000000000

NEBRASKA LICENSE NO. 8100000000

OKLAHOMA LICENSE NO. 8200000000

INDIANA LICENSE NO. 8300000000

MINNESOTA LICENSE NO. 8400000000

NEBRASKA LICENSE NO. 8500000000

OKLAHOMA LICENSE NO. 8600000000

INDIANA LICENSE NO. 8700000000

MINNESOTA LICENSE NO. 8800000000

NEBRASKA LICENSE NO. 8900000000

OKLAHOMA LICENSE NO. 9000000000

INDIANA LICENSE NO. 9100000000

MINNESOTA LICENSE NO. 9200000000

NEBRASKA LICENSE NO. 9300000000

OKLAHOMA LICENSE NO. 9400000000

INDIANA LICENSE NO. 9500000000

MINNESOTA LICENSE NO. 9600000000

NEBRASKA LICENSE NO. 9700000000

OKLAHOMA LICENSE NO. 9800000000

INDIANA LICENSE NO. 9900000000

MINNESOTA LICENSE NO. 10000000000

SHEET	C-12
OF	C-14
DATE	09/27/15
SCALE	AS SHOWN
START DATE	09/27/15
END DATE	11/03/15
PROJECT	H2 OFFSITE ROADWAY
LOCATION	PLEASANT PRAIRIE, WI

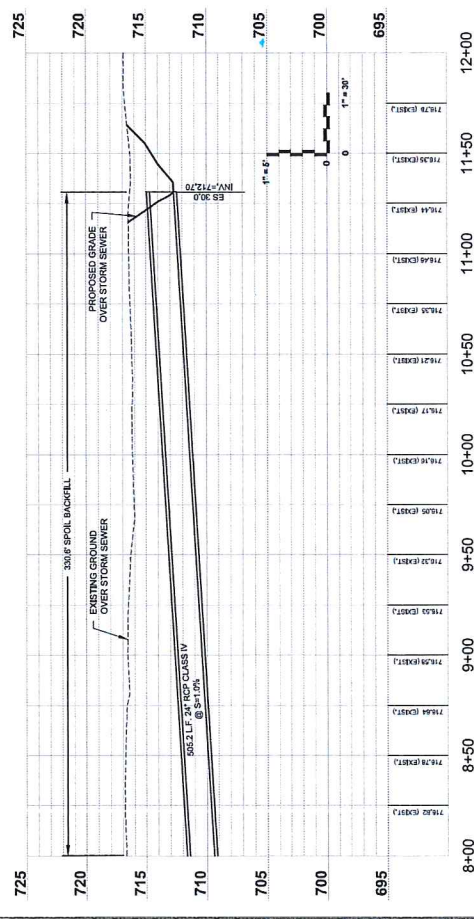
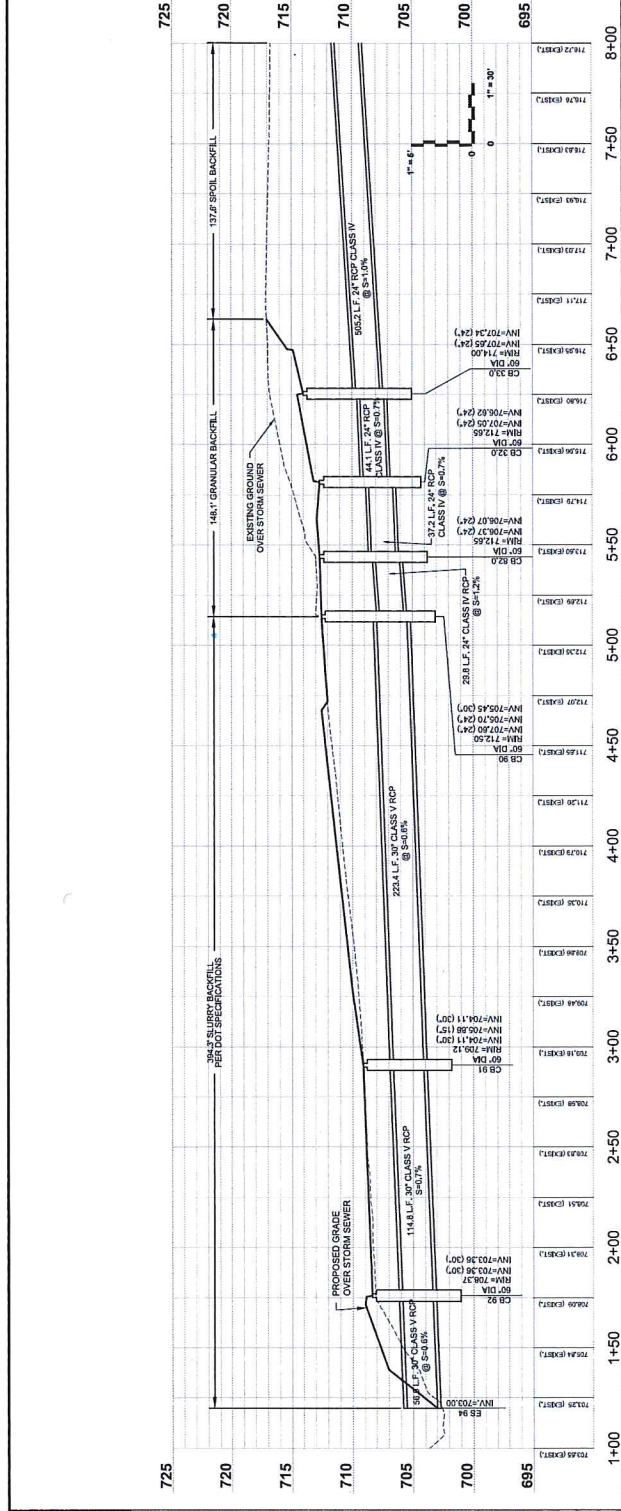
NO.	DATE	BY	DESCRIPTION
1	09/27/15	J. HARRIS	ISSUED FOR CONSTRUCTION
2	10/01/15	J. HARRIS	ISSUED FOR CONSTRUCTION
3	10/01/15	J. HARRIS	ISSUED FOR CONSTRUCTION
4	10/01/15	J. HARRIS	ISSUED FOR CONSTRUCTION

STORM SEWER PROFILES

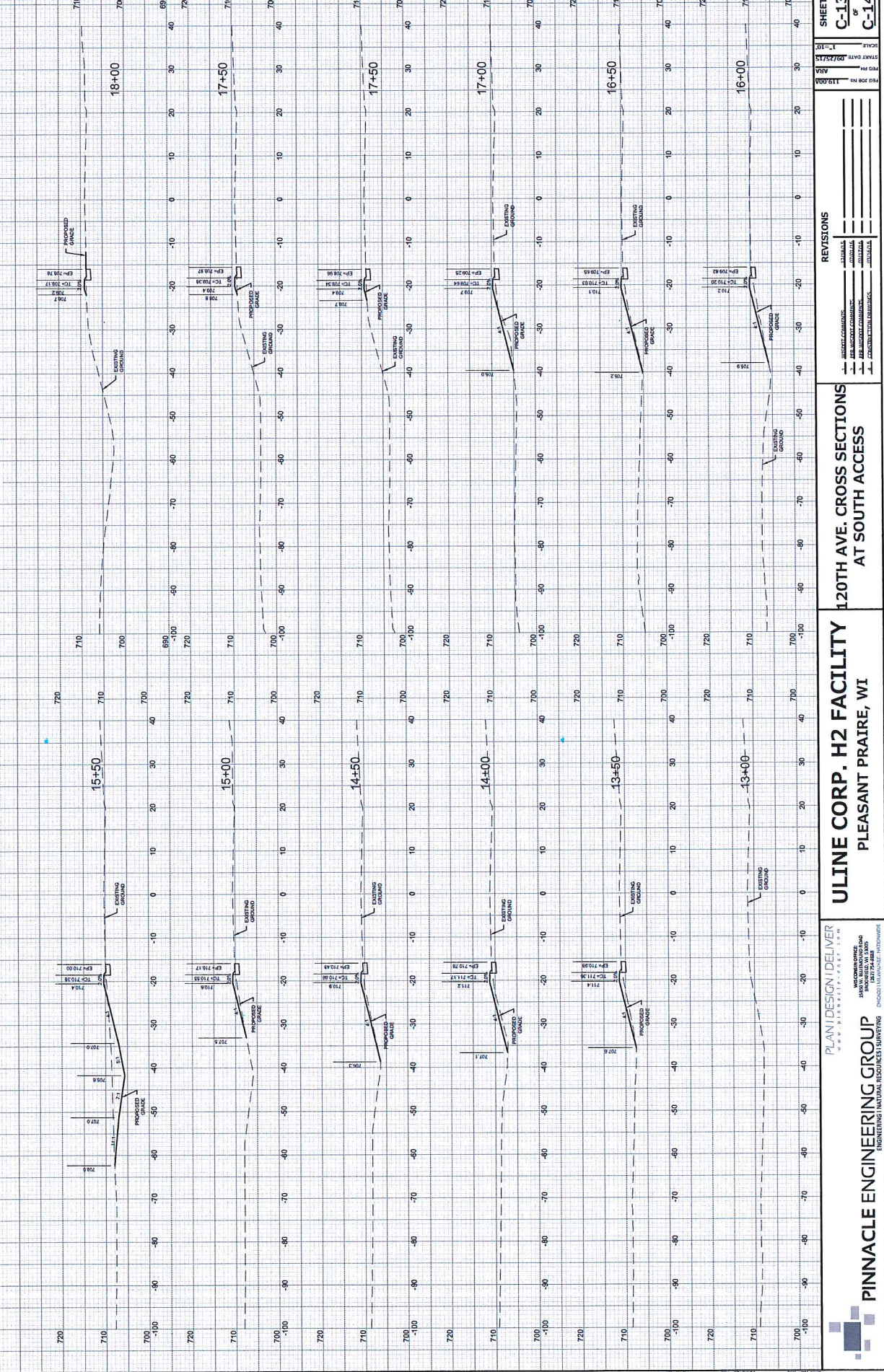
H2 OFFSITE ROADWAY
PLEASANT PRAIRIE, WI

PLAN I DESIGN I DELIVER
www.planidesign.com

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING
CHICAGO | MILWAUKEE | WATSONVILLE



THESE PLANS AND SPECIFICATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE WITHOUT NOTICE. ANY CHANGES WILL BE INDICATED BY REVISIONS OR FIELD NOTES. THE USER SHALL BE RESPONSIBLE FOR VERIFYING ALL DATA AND CONDITIONS BEFORE CONSTRUCTION.



REVISIONS

NO.	DATE	DESCRIPTION

120TH AVE. CROSS SECTIONS AT SOUTH ACCESS

**ULINE CORP. H2 FACILITY
PLEASANT PRAIRE, WI**

PLANNING DESIGN & DELIVERY
WWW.PINNACLE-ENG.COM

PINNACLE ENGINEERING GROUP
ENGINEERS SURVEYORS ARCHITECTS PLANNERS

120TH AVE. CROSS SECTIONS AT SOUTH ACCESS FOR CONSTRUCTION

SHEET C-13 of C-14

SCALE 1"=10'

DATE 09/27/15

PROJECT 120TH AVE. CROSS SECTIONS AT SOUTH ACCESS

PROJECT NO. 120TH AVE. CROSS SECTIONS AT SOUTH ACCESS

PROJECT LOCATION 120TH AVE. CROSS SECTIONS AT SOUTH ACCESS

PROJECT CLIENT ULINE CORP.

PROJECT ADDRESS 120TH AVE. CROSS SECTIONS AT SOUTH ACCESS

PROJECT CITY PLEASANT PRAIRE, WI

PROJECT STATE WISCONSIN

PROJECT ZIP 53092

PROJECT PHONE (262) 441-1000

PROJECT FAX (262) 441-1001

PROJECT EMAIL INFO@PINNACLE-ENG.COM

PROJECT WEBSITE WWW.PINNACLE-ENG.COM

PROJECT CONTACT NAME JOHN J. HANSEN

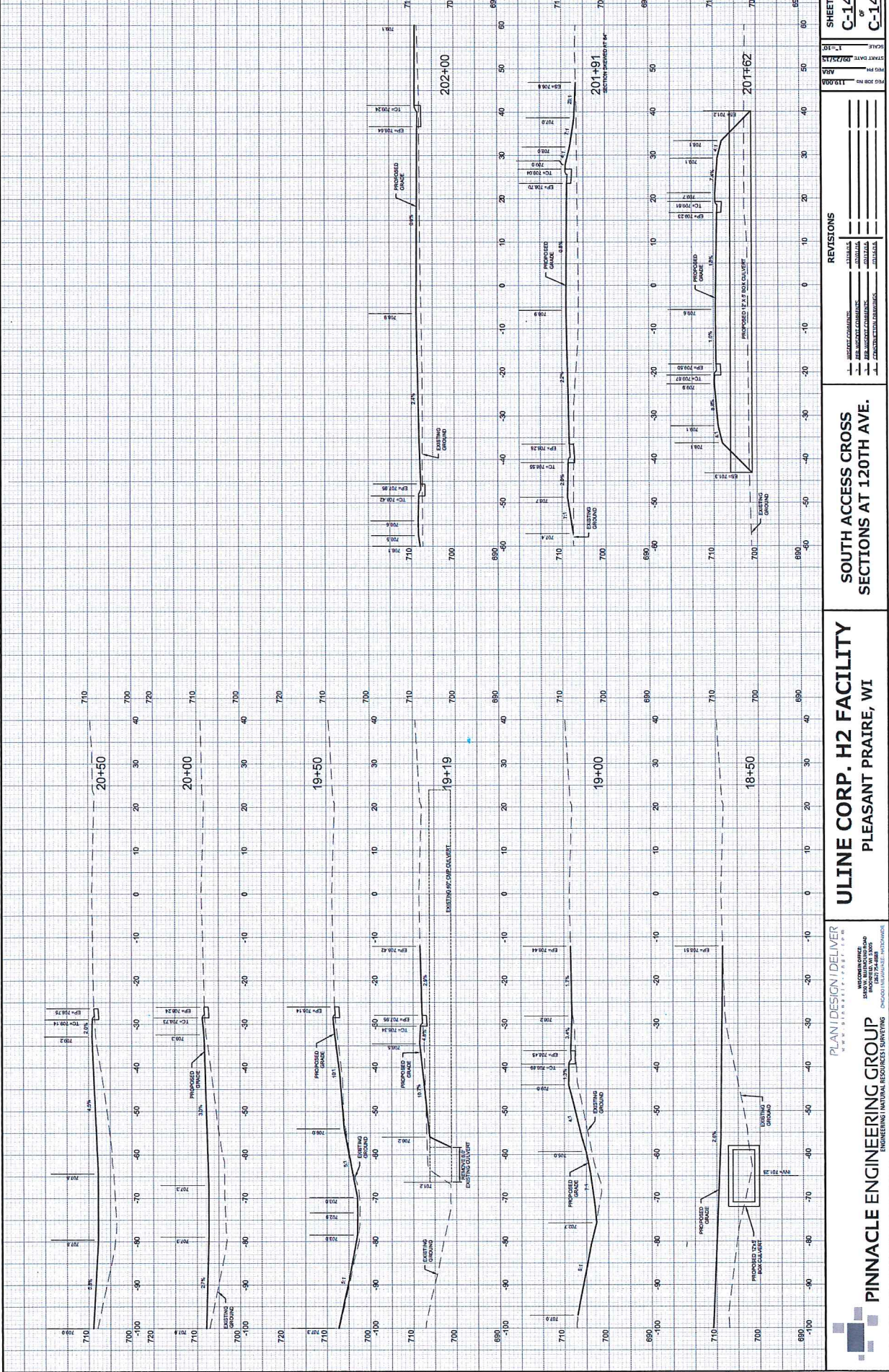
PROJECT CONTACT PHONE (262) 441-1000

PROJECT CONTACT FAX (262) 441-1001

PROJECT CONTACT EMAIL JHANSEN@PINNACLE-ENG.COM

PROJECT CONTACT WEBSITE WWW.PINNACLE-ENG.COM

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF PINNACLE ENGINEERING GROUP, INC. AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF PINNACLE ENGINEERING GROUP, INC.



REVISIONS

NO.	DATE	DESCRIPTION
1	09/27/15	ISSUED FOR CONSTRUCTION
2		
3		
4		
5		

SOUTH ACCESS CROSS SECTIONS AT 120TH AVE.

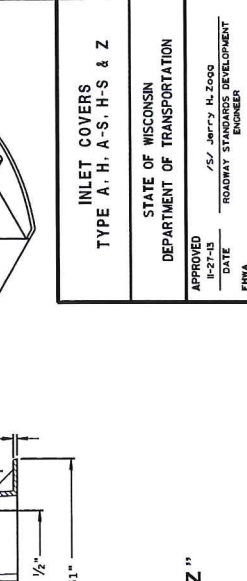
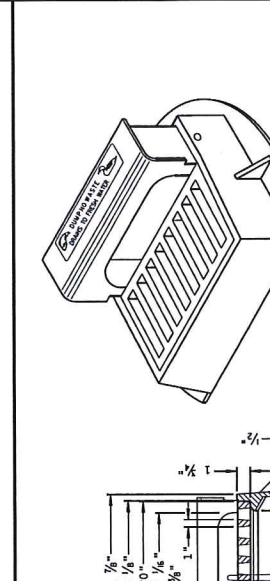
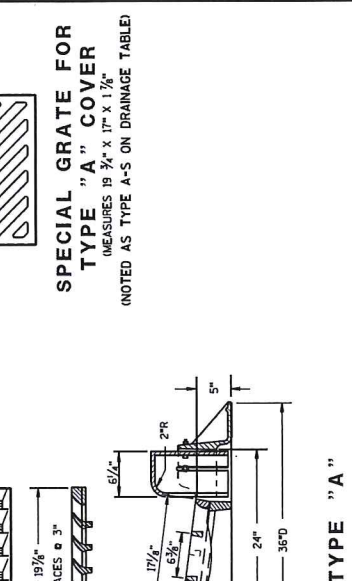
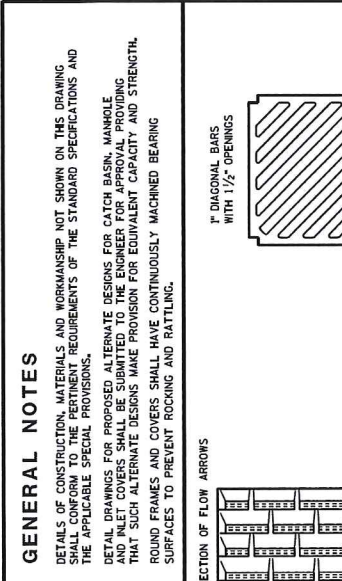
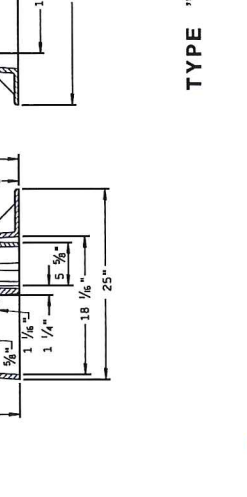
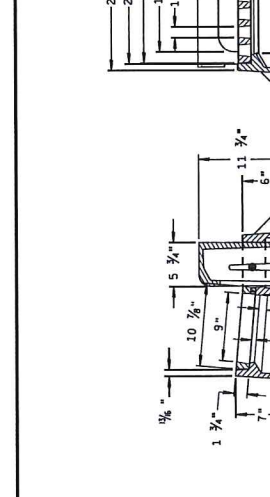
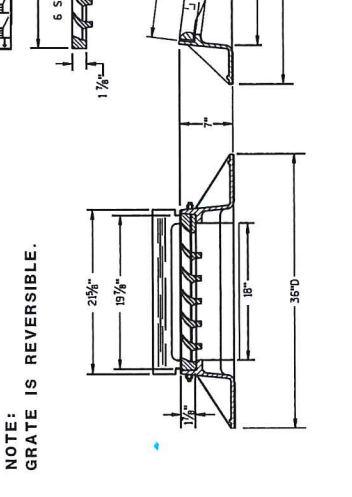
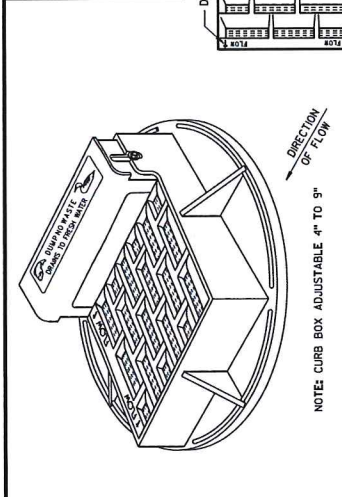
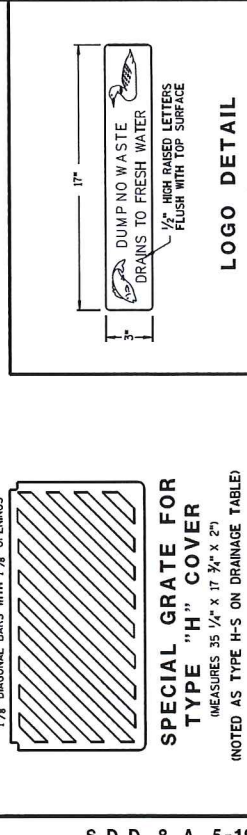
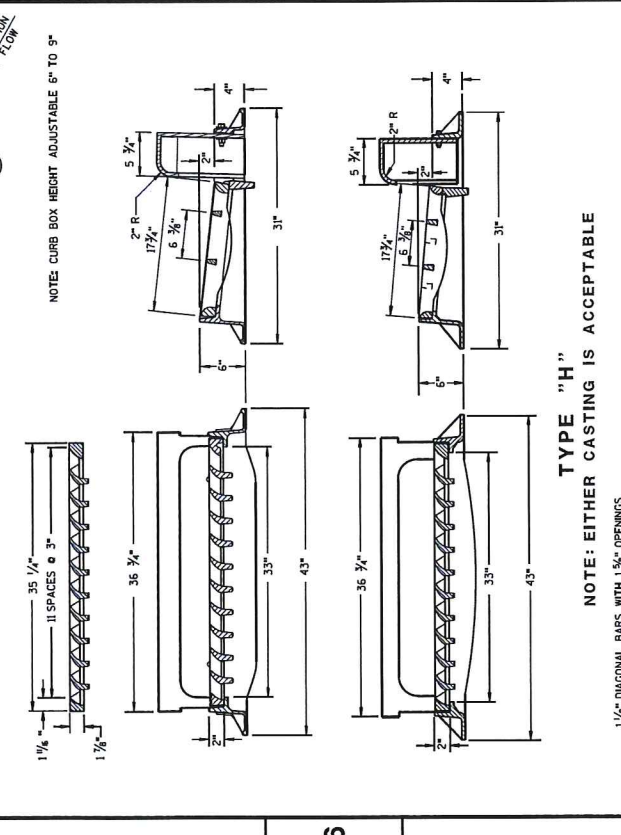
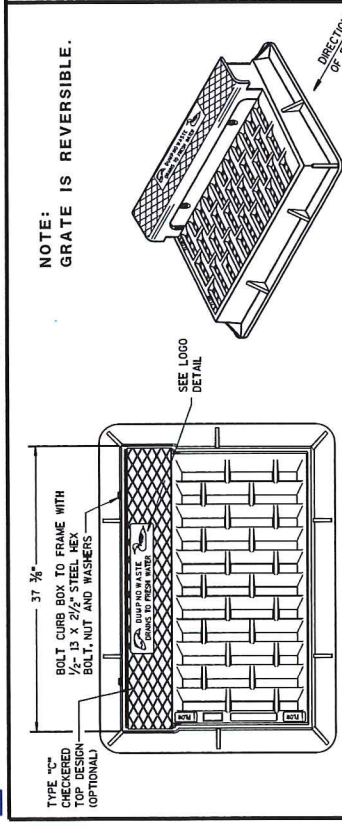
ULINE CORP. H2 FACILITY PLEASANT PRAIRE, WI

PINNACLE ENGINEERING GROUP
 ENGINEERING | NATURAL RESOURCES | SURVEYING

PLANI DESIGN | DELIVER
 WWW.PINNACLE-ENG.COM

REGISTERED ENGINEER
 LICENSE NO. 10000
 REGISTERED SURVEYOR
 LICENSE NO. 10000

8A5 sheet a: Inlet Covers Type A, H, A-S, H-S & Z



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH. ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

1" DIAGONAL BARS WITH 1 1/2" OPENINGS

SPECIAL GRATE FOR TYPE "A" COVER
 (MEASURES 19 3/4" X 17" X 1 7/8")
 (NOTED AS TYPE A-S ON DRAINAGE TABLE)

TYPE "A"

TYPE "Z"

INLET COVERS
 TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

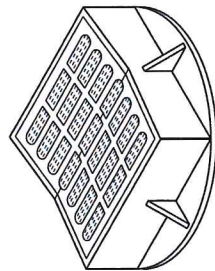
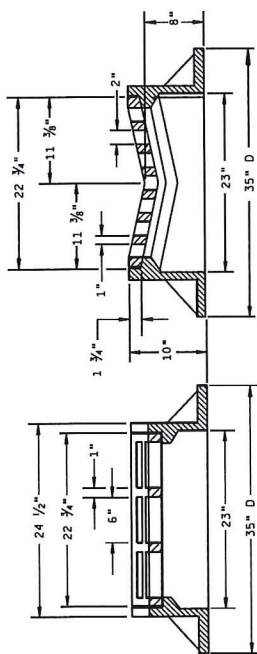
APPROVED
 II-27-15

DATE
 /S/ Jerry H. Zoog
 ROADWAY STANDARDS DEVELOPMENT
 ENGINEER
 FHWA

6

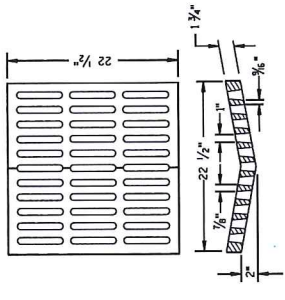
6

S.D.D. 8 A 5-19a

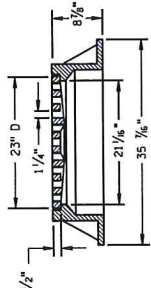
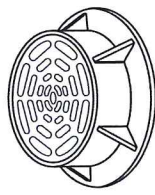
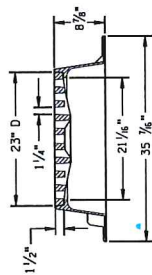


TYPE "B"

ALTERNATIVE GRATE FOR TYPE "B" COVER

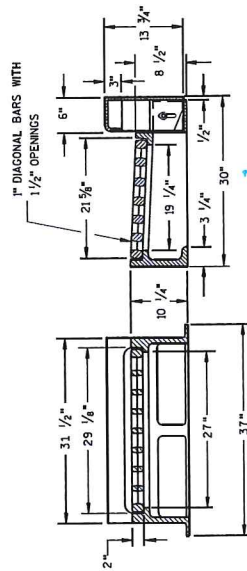


USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



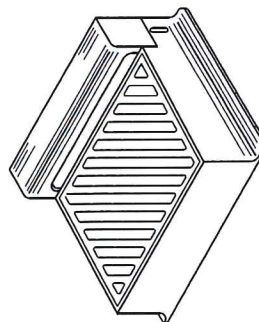
TYPE "C"

NOTE: EITHER CASTING IS ACCEPTABLE



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"



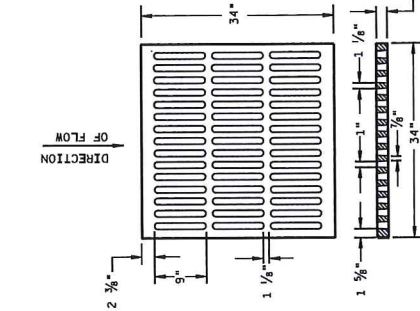
DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.

GENERAL NOTES

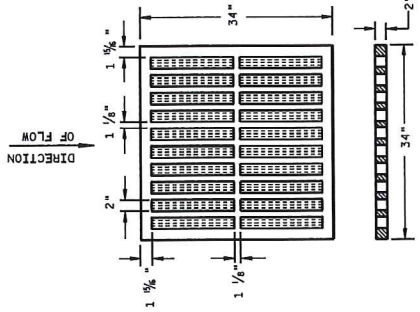
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH. ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

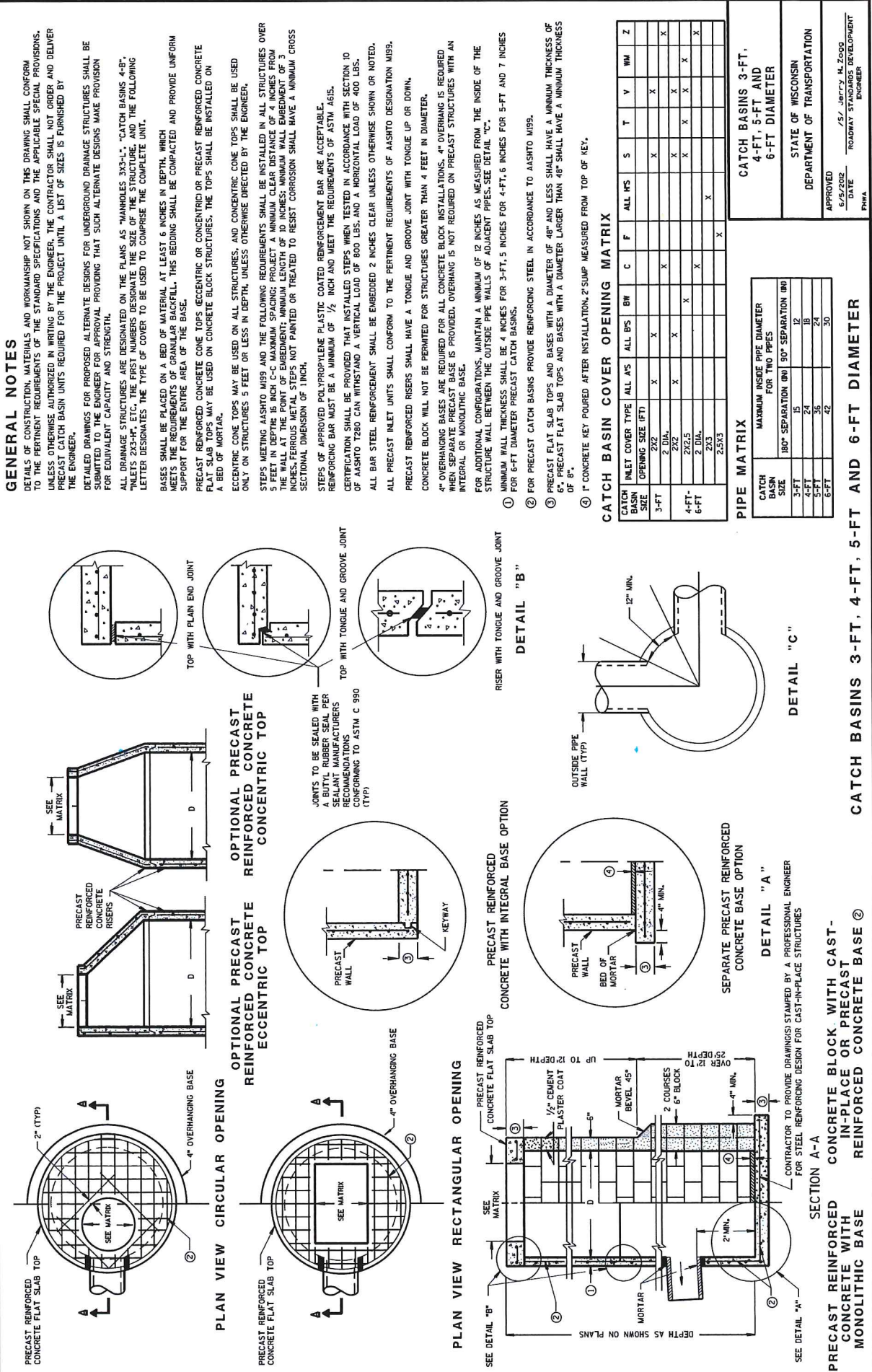


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE

INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED _____ DATE 11/27/2003
_____/S/ JERRY H. ZOGG ROADWAY STANDARDS DEVELOPMENT ENGINEER
FWA

8A8: Catch Basins 3-FT, 4-FT, 5-FT & 6-FT Diameter



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPOSE THE COMPLETE UNIT.

BASSES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 18 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES; PERIODIC METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCEMENT BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES-SEE DETAIL "C".

- MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.
- FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".
- 1" CONCRETE KEY POURED AFTER INSTALLATION. 2" SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL WS	ALL BS	BW	C	F	ALL WS	S	T	V	WM	Z
3-FT	2X2	X	X					X		X		
4-FT	2 DIA.	X	X					X		X		X
	2X2.5			X				X		X		X
6-FT	2 DIA.				X			X		X		X
	2X3					X		X		X		X

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES
3-FT	180° SEPARATION (Ø) 90° SEPARATION (Ø)
4-FT	15 24 12
5-FT	18 24 24
6-FT	36 42 30

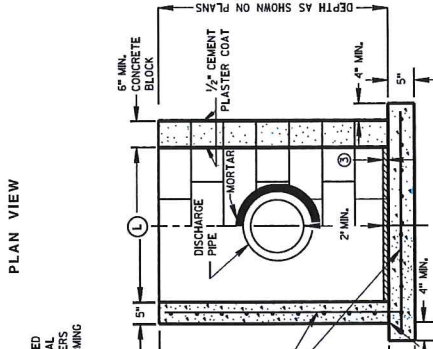
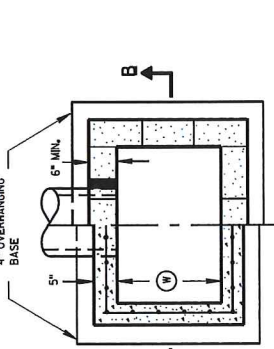
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

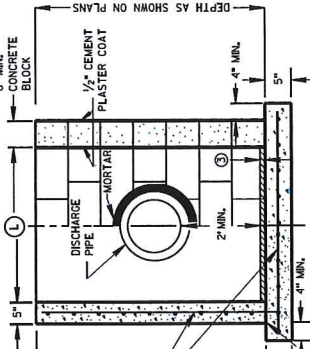
APPROVED: /s/ Jerry H. Zogg
DATE: 6/5/202
ROADWAY STANDARDS DEVELOPMENT ENGINEER
PWA

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

PRECAST REINFORCED CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE



RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A

SECTION B-B



DETAIL "A"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST CATCH BASIN UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3'-L", "CATCH BASINS 4'-9", "INLETS 2X3'-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.

OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

- ① FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWINGS/STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.
- ③ 1" CONCRETE KEY POURED AFTER INSTALLATION, 2" SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE	WIDTH (Ø) (FT)	LENGTH (Ø) (FT)	INLET COVER TYPE	F ALL HS
2X3-FT	2	3	X	X
2.5X3-FT	2.5	3	X	X

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24

S.D.D. 8 A 9-1

CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____ /S/ Jerry N. Zogg
DATE 6/5/2021 ROADWAY STANDARDS DEVELOPMENT ENGINEER
PHVA

CATCH BASINS 2X3-FT AND 2.5X3-FT

SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

8D1: Concrete Curb, Concrete Curb & Gutter and Ties

GENERAL NOTES

DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PRETREATMENT REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. THE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 502.02 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED WITH AN EPOXY SEALANT. THE SEALANT SHALL BE APPLIED TO THE JOINTS OF THE CURB AND GUTTER. THE SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURB.

- 1 THE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBT.
- 2 THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- 3 THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- 4 THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- 5 WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATIONS WILL BE SHOWN ELSEWHERE IN THE PLAN.

CONCRETE CURB & GUTTER 30"

TYPES K & L

OPTIONAL CURB SHAPE FOR TYPES K & L

CONCRETE CURB & GUTTER 36"

TYPES R & T

CONCRETE CURB & GUTTER 36"

TYPES A & D

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 30"

TYPES TBT & TBT

TBT & TBT	30"	22"	28"
TBT & TBT	36"	22"	28"

CONCRETE CURB & GUTTER 36"

TYPES TBT & TBT

CONCRETE CURB & GUTTER 36"

TYPES G & J

CONCRETE CURB & GUTTER 36"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

TYPES G & J

CONCRETE CURB & GUTTER 48"

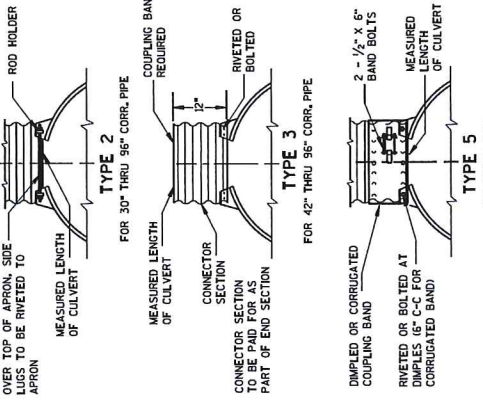
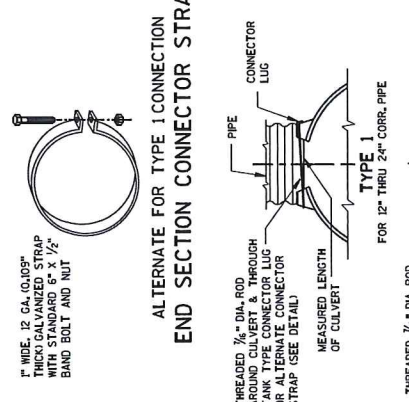
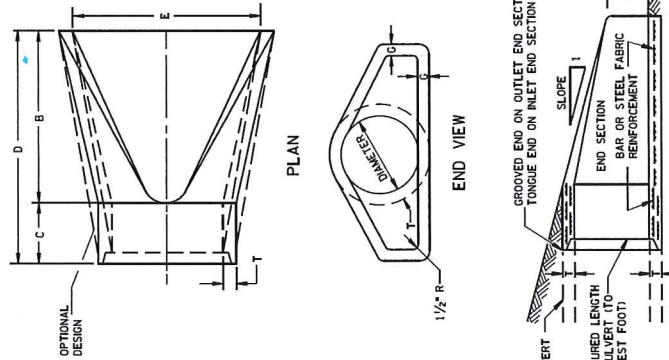
TYPES G & J

PIPE DIA. (IN.)	MIN. THICK. (INCHES)	METAL APRON ENDWALLS									
		DIMENSIONS (INCHES)									
		A	B	H	L	L1	L2	W	APPROX. SLOPE	BODY SLOPE	
12	.064	.060	6	6	21	17 1/2	12	64	2 1/2 to 1	1 1/2 to 1	
15	.064	.060	7	6	26	14	18 1/2	50	2 1/2 to 1	1 1/2 to 1	
18	.064	.060	8	10	31	15	18 1/2	56	2 1/2 to 1	1 1/2 to 1	
21	.064	.060	9	12	36	16	18 1/2	62	2 1/2 to 1	1 1/2 to 1	
24	.064	.060	10	15	41	17 1/2	18 1/2	68	2 1/2 to 1	1 1/2 to 1	
30	.075	.075	12	18	49	19	18 1/2	80	2 1/2 to 1	1 1/2 to 1	
36	.083	.083	14	21	57	20	18 1/2	92	2 1/2 to 1	1 1/2 to 1	
42	.083	.083	16	24	65	21	18 1/2	104	2 1/2 to 1	1 1/2 to 1	
48	.083	.083	18	27	73	22	18 1/2	116	2 1/2 to 1	1 1/2 to 1	
54	.089	.085	18	30	81	22	18 1/2	128	2 1/2 to 1	1 1/2 to 1	
60	.089	.085	18	33	89	22	18 1/2	140	2 to 1	1 1/2 to 1	
66	.089	.085	18	36	97	22	18 1/2	152	2 to 1	1 1/2 to 1	
72	.089	.085	18	39	105	22	18 1/2	164	2 to 1	1 1/2 to 1	
78	.089	.085	18	42	113	22	18 1/2	176	2 to 1	1 1/2 to 1	
84	.089	.085	18	45	121	22	18 1/2	188	2 to 1	1 1/2 to 1	
90	.089	.085	18	48	129	22	18 1/2	200	2 to 1	1 1/2 to 1	
96	.089	.085	18	51	137	22	18 1/2	212	2 to 1	1 1/2 to 1	

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

PIPE DIA. (IN.)	REINFORCED CONCRETE APRON ENDWALLS									
	DIMENSIONS (INCHES)									
	T	A	B	C	D	E	C	SLOPE	APPROX. SLOPE	
12	2	4	24	48 1/2	72 1/2	24	2	3 to 1	3 to 1	
15	2 1/2	5	27	54	81	27	3	3 to 1	3 to 1	
18	3	6	30	60	90	30	3	3 to 1	3 to 1	
21	3 1/2	7	33	66	99	33	3	3 to 1	3 to 1	
24	4	8	36	72	108	36	3	3 to 1	3 to 1	
27	4 1/2	9	39	78	117	39	3	3 to 1	3 to 1	
30	5	10	42	84	126	42	3	3 to 1	3 to 1	
36	6	12	48	96	144	48	3	3 to 1	3 to 1	
42	7	14	54	108	162	54	3	3 to 1	3 to 1	
48	8	16	60	120	180	60	3	3 to 1	3 to 1	
54	9	18	66	132	198	66	3	3 to 1	3 to 1	
60	10	20	72	144	216	72	3	3 to 1	3 to 1	
66	11	22	78	156	234	78	3	3 to 1	3 to 1	
72	12	24	84	168	252	84	3	3 to 1	3 to 1	
78	13	26	90	180	270	90	3	3 to 1	3 to 1	
84	14	28	96	192	288	96	3	3 to 1	3 to 1	
90	15	30	102	204	306	102	3	3 to 1	3 to 1	

* MINIMUM
** MAXIMUM

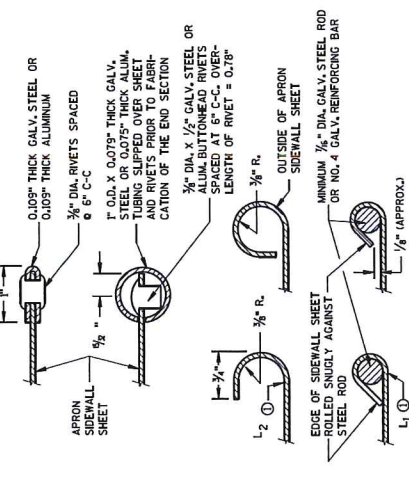


NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CONNECTION DETAILS 1, 2 OR 5, USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60\"/>

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THE APRON ENDWALLS SHALL BE INSTALLED TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

FOR PIPE SIZES UP TO 60\"/>

APRON ENDWALLS FOR CULVERT PIPE	
STATE OF WISCONSIN	
DEPARTMENT OF TRANSPORTATION	
APPROVED	/s/ Roy L. Rhineheart
DATE	8-30-94
FHWA	

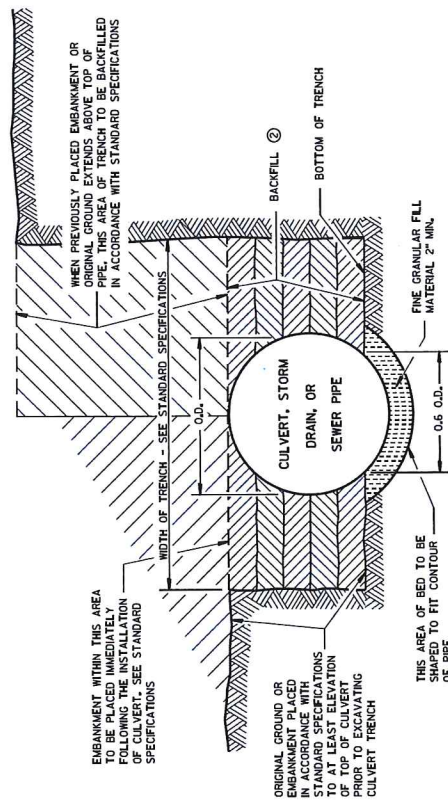
8F5: Class 'B' Bedding for Culvert Pipe or Storm Sewer

GENERAL NOTES

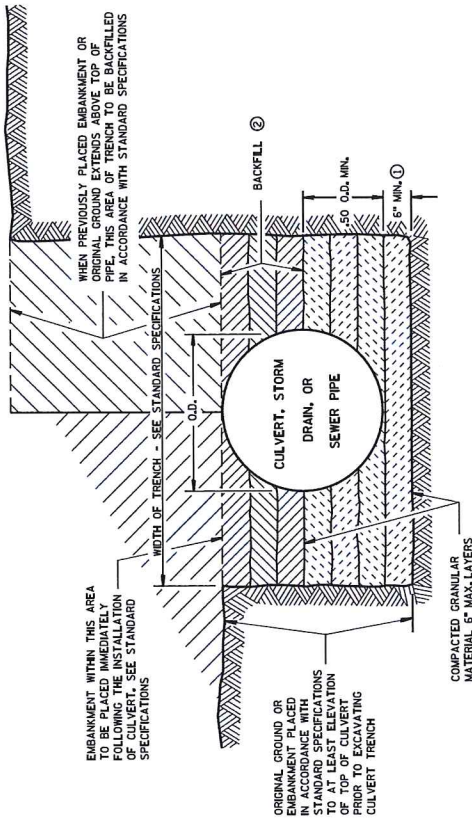
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

- ① WHERE ROCK, HARD PAN OR FRAGMENTED MATERIAL IS ENCOUNTERED, THE SUBGRADE SHALL BE SHAPED TO FOLLOW THE BOTTOM OF THE PIPE AN AMOUNT EQUAL TO 1/4" INCH PER FOOT OF PROPOSED EMBANKMENT ABOVE THE TOP OF THE PIPE, BUT NOT LESS THAN 6 INCHES.
- ② TRENCH SHALL BE BACKFILLED AS REQUIRED BY STANDARD SPECIFICATIONS, SECTION 500 FOR PIPE CULVERTS AND SECTION 607 FOR STORM SEWERS.



SHAPED SUBGRADE WITH GRANULAR FOUNDATION



GRANULAR FOUNDATION

CLASS "B" BEDDING

CLASS "B" BEDDING FOR
CULVERT PIPE OR STORM SEWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____
DATE 4-7-85
STATE DESIGN ENGINEER FOR HWYS
PWA

S.D.D. 8 F 5-1

6

6

S.D.D. 8 F 5-1



15D28: Traffic Control, Work on Shoulder or Parking Lane, Undivided Roadway

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" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"W" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE. SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

W20-1A AND C20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. C20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

SHOULDER TAPER LENGTH (FEET)	BUFFER SPACE (FEET)
4	10
8	10
10	10
20	10
30	10
40	10
50	200
35	45
30	55
40	55
40	75
40	90
45	120
50	150
50	170
50	185
55	495

SHOULDER TAPER LENGTH = $\frac{1}{2}L$

W = SHOULDER WIDTH (FEET)

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

L = $\frac{WS^2}{60}$ AT 40 MPH OR LESS



400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH



25' MAX. @ 35 MPH OR LESS
50' MAX. @ 40 MPH OR MORE

50' MAX. @ 35 MPH OR LESS
100' MAX. @ 40 MPH OR MORE

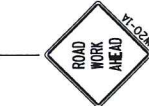
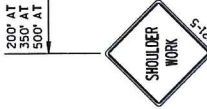
400' AT 25-30 MPH
700' AT 35-40 MPH
1500' AT 45-55 MPH

200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

WORK AREA
BUFFER SPACE (SEE TABLE A)
SHOULDER OR PARKING LANE TAPER LENGTH (SEE TABLE A)



5 DRUMS MIN. IN TAPER



LEGEND

- TRAFFIC CONTROL DRUM
- ⊥ SIGN ON PERMANENT SUPPORT
- ➔ DIRECTION OF TRAFFIC
- ▨ WORK AREA

OR
IF TRAFFIC CONTROL DEVICES ENCR OACH ONTO TRAVELED WAY, USE



TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 14, 2015
DATE

/s/ Peter Amkocbe Atepa
STATE ENGINEER, TRAFFIC SAFETY DIVISION
PWA

Development Agreement (H2)
Route 165 LLC (Uline)

EXHIBIT F

Tax Increment District #2 Amendment #5 Project Plan - Cost Spreadsheet

See Attached

Village of Pleasant Prairie
Tax Incremental District #2
Amendment #5

Roadways:

Project and Location	Year	Item	Estimate Source	Cost ¹⁾	Notes
Prairie Springs Pointe South 113th Street		Roadway	Engineering	\$827,500	
Prairie Springs Pointe South 113th Street		Wetland Mitigation	Engineering	\$40,000	
39th Avenue Reconstruction		Roadway Construction	Engineering	\$3,631,000	
Park and Ride		Roadway	Engineering	\$2,026,000	
Park and Ride		Wetland Mitigation	Engineering	\$63,000	
Riverview Phase I		Roadway	Engineering	\$1,029,000	Includes engineering, consulting
Riverview Phase II		Roadway	Engineering	\$3,457,000	Includes engineering, consulting
Riverview Phase II		Roadway-Roundabout	Engineering	\$1,320,000	Includes ROW acquisition
116th Street extension from East Front Rd		Roadway	Engineering	\$348,000	
East Frontage Rd		Old Roadway Removal	Engineering	\$50,000	
Urban Profile West Frontage Rd		Prairie Springs Pointe South	Engineering	\$108,500	
Dedicated right turn lane 95th St		Eastbound to southbound STH 31	Engineering	\$162,000	
Land Acquisition 39th Ave		Corridor Preservation	Engineering	\$431,000	
95th Street Trail and Sidewalk		Terwall terrace to Old Green Bay Rd	Engineering	\$1,029,000	
Subtotal:				\$14,522,000	

Storm:

Project and Location	Item	Estimate Source	Cost ¹⁾	Notes
113th Street Prairie Springs Pointe South	Storm Sewer	Engineering	\$188,000	
39th Avenue Reconstruction	Storm Sewer	Engineering	\$404,000	
Riverview Phase I	Stormwater management	Engineering	\$322,000	
Riverview Phase II	Stormwater management	Engineering	\$466,000	
Riverview Phase II	Roadway Detention	Engineering	\$112,000	
Subtotal:				\$1,492,000

Sanitary:

Project and Location	Item	Estimate Source	Cost ¹⁾	Notes
113th Street Prairie Springs Pointe South	Sanitary Sewer	Engineering	\$195,000	
39th Avenue Reconstruction	Sanitary Sewer	Engineering	\$87,000	
Riverview Phase I	Sanitary Sewer	Engineering	\$502,000	
Riverview Phase II	Sanitary Sewer	Engineering	\$2,814,000	
Riverview Phase I	Force main discharge vault reconstruction	Public Works	\$25,000	
Riverview Phase I	Force main valve work STH 165 LS	Public Works	\$10,000	
Niagara	Lakeviw Sanitary CTH H	Engineering	\$561,000	
Subtotal:				\$4,194,000

Water Main:

Project and Location	Item	Estimate Source	Cost ¹⁾	Notes
113th Street Prairie Springs Pointe South	Water Main	Engineering	\$195,000	
39th Avenue Reconstruction	Water Main	Engineering	\$97,000	
Riverview Phase I	Water Main	Engineering	\$168,000	
Riverview Phase II	Water Main	Engineering	\$543,000	
Riverview Phase II	East Frontage Rd WM Loop	Engineering	\$335,000	
Prairiewood Water Main	water Main to boost pressures near CTH Q	Engineering	\$1,718,000	Includes Easement Acquisition
Sheridan Rd Transmission Main	104th to 91st ST	Engineering	\$2,280,000	
Subtotal:				\$5,336,000 Includes reconnect to Carol Beach Unit 6

Sitework and Grading:

Project and Location	Item	Estimate Source	Cost ¹⁾	Notes
113th Street Prairie Springs Pointe South	Grading	Engineering	\$255,000	
39th Avenue Related Sitework	Site grading and roadwork	Engineering	\$2,450,000	Village Hall and Fire Station Parking etc.
Riverview Phase I	Overall site grading	Engineering	\$1,716,000	
Riverview Phase II	Overall site grading	Engineering	\$3,696,000	
Bury Electric Lines	39th Ave and Springbrook & Fire Station	Engineering	\$220,000	
Subtotal:				\$8,337,000

Cost Subtotal: \$33,881,000

GRANTS:

39th Avenue	\$1,519,564
Park and Ride	\$371,082
Grants Subtotal:	\$1,890,646

TID Total: \$31,990,354

¹⁾ Includes consulting, engineering and contingencies

Development Agreement (H2)
Route 165 LLC (Uline)

EXHIBIT G
Fiber Optic Conduit Indefensible Right to Use Agreement

See Attached

INDEFEASIBLE RIGHT OF USE AGREEMENT

THIS AGREEMENT ("**Agreement**") is made effective as of the ____ day of _____, 2016 ("**Effective Date**"), by and between Village of Pleasant Prairie, a Wisconsin municipal corporation, ("**Village**") and Route 165, LLC, a Delaware Corporation ("**Uline**").

BACKGROUND

Uline desires to be granted the right to use certain Available Capacity in the Village Conduit and the Village desires to grant Uline an Indefeasible Right of Use ("**IRU**") in certain space in the Village Conduit subject to the terms and conditions set forth below.

Accordingly, in consideration of the mutual promises set forth below and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. DEFINITIONS:

- 1.1. "**Access Point**" is the physical location(s) at which Uline may, subject to required permits, rights, and approval by the Village, insert the IRU Fibers.
- 1.2. "**Available Capacity**" means conduit capacity between two specified locations that have no optronics or electronics attached to it.
- 1.3. "**Indefeasible Right of Use or IRU**" is an exclusive and irrevocable right to use certain Available Capacities in the Village Conduit, subject to the terms and conditions of this Agreement.
- 1.4. "**IRU Fee**" means the amount of money in United States Dollars Uline pays for the construction, maintenance and repair of the Village Conduit as more fully set forth in Article 7 below.
- 1.5. "**IRU Fibers**" means the fibers installed by Uline in the Village fiber optic conduit as set forth in **Exhibit A**.
- 1.6. "**Proportionate Share**" means the percentage determined by dividing the total number of Uline IRU fibers within the Village Conduit, by the total of all active IRU fibers that Village has in the Village Conduit.
- 1.7. "**Rights**" means any and all necessary right of way agreements, easements, licenses, permits, leases, rights or other agreements necessary for the occupancy and use by either party of poles, conduit, cable, wire, physical plant facilities, and/or access to real property underlying the cable, as well as IRU or similar agreements Village may have entered into with other parties to obtain Fibers which are a part of or are used in connection with the Village Conduit.
- 1.8. "**Rights Fees**" means all costs and expenses associated with acquiring, securing, renewing, extending, negotiating or defending all Rights required to install, maintain, operate and use the Village fiber optic conduit and IRU Fibers for the purposes of this Agreement.

EXHIBIT G

- 1.9. "Term" means the term of the IRU as set forth in Exhibit A attached hereto, commencing on the Effective Date of this Agreement.
- 1.10. "Village Conduit" means the conduits containing Indefeasible Right of Use Fibers in which Uline has an IRU pursuant to the terms of this Agreement.

2. FIBER OPTIC USE

- 2.1. Subject to the terms and conditions of this Agreement, Village grants Uline an IRU in certain Available Capacity in the Village Conduit as more specifically set forth in this Agreement. The IRU includes all exclusive right to use the Village Conduit, including cable sheathing, troughing, pedestals, slack containers, and related equipment necessary for the operation and use of the Available Capacity as contemplated herein, but excluding any electronic or optronic equipment which shall be provided by Uline at its sole cost. Uline shall be entitled to use its IRU Fibers for any lawful purpose subject to the terms of this Agreement and hereby agrees i) to be bound by all laws, regulations and any requirements of underlying Rights whether by agreement, permit or otherwise, ii) to appoint Village as its agent for any and all matters relating to the Rights if requested by Village, iii) to obtain prior approval from Village for any transfer / assignment pursuant to Article 18 below and obtaining from any transferee / assignee undertakings to be bound by this Agreement and the terms and conditions of the Rights agreements in accordance with Article 24, and iv) to be bound by the provisions of any underlying agreements Village has with third parties, including but not limited to IRU agreements, by or through which Village is providing all or a portion of the Village Conduit.
- 2.2. The requirements, restrictions, and/or limitations upon Uline's right to use the Village Conduit as provided and permitted under this Agreement will survive the termination or expiration of this Agreement to the extent Uline continues to use the IRU Fibers in any manner.
- 2.3. Uline shall not use the Village Conduit in a manner that physically or electronically interferes in any way with, or otherwise adversely affects the use of the Village Conduit (or any equipment or element thereof).

3. EFFECTIVE DATE & TERM

- 3.1. Uline will be entitled to use the Village Conduit upon Village Acceptance as set forth in Article 5 below. The IRU Term shall start upon the Effective Date and shall terminate on the date set forth in the applicable Exhibit A.
- 3.2. This Agreement may be cancelled and terminated by Uline prior to the end of the Term by providing at least sixty (60) days' notice to Village. Termination by Uline prior to the end of the Term shall be deemed an abandonment of its rights and the provisions of Article 15 below shall apply.
- 3.3. Expiration or termination of this Agreement shall not affect the rights or obligations of any party with respect to any payments of costs incurred prior to the date of termination.

EXHIBIT G

- 3.4. After the initial Term, this Agreement, including the IRU granted hereunder, may be renewed by Uline for two additional 20-year terms for the fee of one dollar (\$1.00).
- 3.5. The initial Maintenance Term shall start upon Village Acceptance and shall terminate at the end of the Initial Term.
- 3.6. After the Initial Term, all maintenance provisions will be renewed by Uline to the extent and for the same period of time that the IRU Agreement is renewed.
- 3.7. Expiration or termination of this Agreement shall not affect the rights or obligations of any party with respect to those obligations incurred prior to the date of termination; provided, however, that Uline shall have no obligation for fees incurred prior to termination when the cause of termination is breach of this Agreement by Village.

4. VILLAGE CONDUIT CONSTRUCTION

- 4.1. Uline, at its sole cost and expense, whether through Uline or third-party contractors, shall be responsible for the construction of the Village Conduit, and any ancillary improvements, equipment, electronics, and fibers necessary for Uline's utilization of the IRU Fibers and the Village Conduit as a whole.
- 4.2. Prior to beginning any construction, Uline shall submit plans for the construction of the Village Conduit to Village for its approval, of which such approval shall not be unreasonably withheld.

5. ACCEPTANCE & DOCUMENTATION

- 5.1. Upon completion of the Village Conduit and approval by Uline of the testing of the IRU Fibers, Uline shall be deemed to have accepted the Village Conduit as constructed and for its intended purposes ("Acceptance"). Throughout construction and upon Acceptance, Village shall be entitled to perform a visual inspection of all above-ground Access Points and visible Village Conduit. Within fourteen (14) days after receiving notice of Uline's Acceptance, Village shall (i) determine whether the Village Conduit, both in placement and construction, conforms to the construction plans, and (ii) provide a Village Acceptance/Rejection Notice in the form of the attached **Exhibit C** incorporated by reference herein. Failure to issue a Village Acceptance/Rejection Notice within the fourteen (14) day time period shall constitute acceptance by the Village of the Village Conduit. Village Acceptance shall mean that Village has accepted right and title to the Village Conduit.
- 5.2. Should Village reject the Village Conduit by providing a Rejection Notice within the applicable fourteen (14) day period in accordance with this Agreement, Uline shall use commercially reasonable efforts to cure the material defective conditions identified in the Rejection Notice within ninety (90) days after receipt of the Rejection Notice, to the extent the defective conditions were not caused by Village. Upon cure, the Village Conduit shall be deemed accepted by Village. If Uline is unable to cure within that time period, Village may terminate this Agreement and the provisions of Article 15 shall apply.

EXHIBIT G

- 5.3. Any disputes as to Village Acceptance or Rejection of Village Conduit shall be resolved in accordance with Article 21 of this Agreement.
- 5.4. Upon Acceptance, Uline shall provide general, non-proprietary documentation (“**Documentation**”) regarding the Village Conduit and IRU Fibers. Documentation shall consist of a route diagram that illustrates the location of the:
 - End Locations
 - Mid Span Splice Locations if any
 - A summary of distances between the locations listed above.
 - Any geographical information deemed necessary to further clarify the route.

6. **FRANCHISE/LICENSE/PERMIT FEES & CO-LOCATION AGREEMENTS**

- 6.1. Uline shall be responsible for entering into any co-location or other necessary agreements with local exchange carriers and interexchange carriers for Uline's intended use of its IRU Fibers. Village shall have no obligation to furnish any such rights, services or equipment beyond those expressly enumerated in this Agreement.
- 6.2. Uline shall be responsible for the appropriate government filings, licenses, or other requirements and costs to place the IRU Fibers into operation for Uline's intended uses, including, but not limited to any necessary municipal licenses and/or franchise agreements in addition to the Rights agreements (“**Rights Fees**”).
- 6.3. If Village requires permits, licenses, or other approvals from Uline, then Uline agrees to expedite the issuance of the foregoing and streamline any applicable application process.

7. **PAYMENT**

- 7.1. In consideration of the grant of the IRU by Village to Uline, Uline shall be solely responsible for the costs of construction identified in Section 4 above and all costs for maintenance of the Village Conduit and IRU Fibers as necessary and required under Section 8.1 below (all such costs referred to as the “**IRU Fee**”).

8. **MAINTENANCE & REPAIR**

- 8.1. Uline or its designee will use commercially reasonable efforts to perform maintenance and repair in accordance with the Routine Maintenance Standards set forth in the attached **Exhibit D** incorporated by reference herein or such other prevailing industry standards as may be adopted by Uline or its designee from time to time and approved by Village.
- 8.2. All "one-call" responses and locate services shall be performed by Village or its designee for a period coterminous with the term of this Agreement and any renewals thereof. All Conduit facilities associated with this Agreement are located in states with statewide "one call" agencies for excavators to request and notify utilities of digging in the vicinity of the Village Conduit. Village will

EXHIBIT G

subscribe to these services and follow the guidelines and applicable laws including the marking of their facilities within 72 hours of receipt of request. Village will also take action to insure excavator is aware of and protects the Conduit during the excavation as required.

- 8.3. If Uline fails to comply with its maintenance and repair obligations under this Agreement, Village shall have the right to conduct such maintenance and repairs upon providing Uline thirty (30) days advanced written notice. Uline shall reimburse Village for all expenses incurred in performing such maintenance and repair within thirty (30) days of receiving a correct invoice therefor.

9. REPRESENTATIONS, WARRANTIES & ACKNOWLEDGMENTS

- 9.1. Each party represents and warrants to the other with respect to the rights and obligations contained herein that to its knowledge:

9.1.1. it has the full right and authority to enter into, execute, deliver and perform its obligations under this Agreement;

9.1.2. this Agreement constitutes a legal, valid, binding obligation enforceable against such party in accordance with its terms.

- 9.2. Uline shall be solely responsible for obtaining from its contractors any and all warranties for the Village Conduit and the work performed thereto. **VILLAGE MAKES NO OTHER REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED. THE FOREGOING WARRANTY CONSTITUTES THE ONLY WARRANTY WITH RESPECT TO THE VILLAGE CONDUIT AND IRU FIBERS AND THEIR REPAIR AND MAINTENANCE PURSUANT TO THIS AGREEMENT SHALL BE THE EXCLUSIVE REMEDY OF ULINE WITH REGARD THERETO. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, STATUTORY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.**

10. LIABILITY

- 10.1. VILLAGE SHALL NOT BE LIABLE FOR ANY LOSS OF DATA OR ANY INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, ANY CLAIM FROM ULINE OR ITS AFFILIATED ENTITIES FOR LOSS OF SERVICES, LOSS OF BUSINESS OR LOSS OF PROFITS) ARISING UNDER THIS AGREEMENT OR ARISING OUT OF ANY ACT OR OMISSION OF VILLAGE, ITS AFFILIATED ENTITIES OR ANY OF THE FOREGOINGS' DIRECTORS, OFFICERS, EMPLOYEES, SERVANTS, CONTRACTORS AND/OR AGENTS (THE "VILLAGE PARTIES"). ULINE SHALL INCLUDE IN ANY AGREEMENT WITH ANY THIRD PARTY RELATING TO THE USE OF THE IRU FIBER, A WAIVER BY SUCH THIRD PARTY OF ANY CLAIM FOR SUCH LOSSES AGAINST THE VILLAGE PARTIES. NOTWITHSTANDING ANY OTHER PROVISIONS OF THIS AGREEMENT,

EXHIBIT G

THE VILLAGE PARTIES SHALL NOT BE LIABLE FOR ANY INDIRECT DAMAGES (INCLUDING WITHOUT LIMITATION, DAMAGES FOR HARM TO BUSINESS, LOST REVENUES, LOST SAVINGS, OR LOST PROFITS) CLAIMED BY ULINE'S END USERS OR THOSE TO WHOM ULINE HAS ENTERED INTO LEASES WITH OR TO WHOM IT HAS GRANTED IRUS IN ACCORDANCE WITH SECTION 24. FURTHERMORE, IN NO EVENT SHALL THE LIABILITY OF VILLAGE PARTIES EXCEED THE FOLLOWING LIMITS: (A) FOR CLAIMS ARISING PRIOR TO ACCEPTANCE, AN AGGREGATE AMOUNT EQUAL TO THE IRU FEES PAID AS OF THAT TIME; AND (B) FOR CLAIMS ARISING AFTER ACCEPTANCE, AN AGGREGATE AMOUNT EQUAL TO THE TOTAL IRU FEES PAID.

- 10.2. Uline hereby agrees to indemnify, defend, protect and save the Village Parties harmless from and against any claim, damage, loss, liability, injury, cost and expense (including reasonable attorney's fees and expenses) in connection with any loss or damage to any property or facilities arising out of or resulting in any way from the negligent acts or omissions to act or willful misconduct of Uline, its directors, officers, employees, servants, contractors, Uline's agents and any third parties in connection with the exercise of its rights and obligations under the terms of this Agreement.
- 10.3. Nothing contained herein shall operate as a limitation on the right of Uline or the Village Parties to bring an action for damages, including consequential damages, against any other third party (i.e., other than Uline or the Village Parties) based on any acts or omissions of such third party as such acts or omissions may affect the operation or use of the Village Conduit, or any IRU Fibers; provided, however, that the Village Parties and Uline shall assign such rights or claims, execute such documents and do whatever else may be reasonably necessary to enable the injured party to pursue any such action against such third party.

11. FORCE MAJEURE

- 11.1. The obligations of the parties (except for the payment of money hereunder) are subject to force majeure and neither party shall be in default under this Agreement if any failure or delay in performance is caused by strike or other labor dispute; accidents; acts of God; fire; flood; earthquake; lightning; unusually severe weather; material or facility shortages or unavailability not resulting from such party's failure to timely place orders therefore; lack of transportation; legal inability to access property; acts of any governmental authority; government codes, ordinances, laws, rules and regulations or restrictions; condemnation or the exercise of rights of eminent domain; war or civil disorder; or any other cause beyond the reasonable control of either party hereto. The excused party shall endeavor under the circumstances to avoid or remove such causes of non-performance and shall proceed to perform with reasonable dispatch whenever such causes are removed or ceased. Notification of any such event or cause shall be given by the excused party to the other and, when possible, of the estimated duration.

12. RELOCATION OF VILLAGE CONDUIT

- 12.1. If Village is required to relocate or replace its Village Conduit or any of the appurtenant facilities used or required in providing the IRU, then, so long as such work is not necessitated by a breach of the Village obligations and Uline desires to continue use of the IRU, Uline shall reimburse Village for Uline's Proportionate Share of such costs, including, without limitation, Fiber acquisition, splicing, testing and overhead expenses. In the event that a third party reimburses Village for all or a portion of the cost to perform such work, then this reimbursement amount shall reduce on a dollar for dollar basis the aggregate amount of costs deemed to have been spent by Village. Village, upon written request, shall deliver to Uline updated Documentation with respect to any relocated portion of the Village Conduit no later than thirty (30) days following such relocation.
- 12.2. Village fiber optic conduit shall give Uline sixty (60) days prior notice of any such relocation, if possible, and may proceed with such relocation, including, but not limited to, the right to determine the extent of, the timing of, and methods to use for such relocation.
- 12.3. Uline shall have the right to review the relocation plans of Village fourteen (14) days prior to any relocation and shall have the right to have a representative present at the time Village relocates the Village Conduit that contains the IRU Fibers.
- 12.4. If after the Acceptance Date, Village reasonably determines it is required by a third party with the legal authority to so require (including, without limitation, the grantor of any Right), or is required by act of nature or other force majeure, to relocate any portion of the Village Conduit, including without limitation, any of the facilities used or required in providing the IRU hereunder, Village shall proceed with such relocation, and shall have the right, in good faith, to reasonably determine the extent of, the timing of, and methods to be used for such relocation. Uline agrees that it shall promptly reimburse Village for its Proportionate Share of the costs of such relocation if Uline desires to continue its use of the IRU.

13. INSURANCE

- 13.1. Village, or its designee, shall maintain insurance, for the duration of this Agreement, as follows:
 - 13.1.1. Workers' Compensation Insurance complying with the law of the state or states in which the services are to be provided and Employers Liability Insurance with the limits of \$100,000 for each accident, including occupational disease coverage with limits of \$100,000 for each employee, with a \$500,000 policy limit.
 - 13.1.2. Comprehensive General Liability Insurance, including premises, operations, products and completed operations, contractual, broad form property damage, independent contractors and personal injury with the following minimum limits: Personal

EXHIBIT G

Injury - \$5,000,000 each person and \$5,000,000 each accident, and Property Damage - \$1,000,000 each accident.

13.1.3. Automobile Liability Insurance for owned, hired and non-owned autos: \$5,000,000 combined single limit bodily injury/property damage.

13.2. Failure of Uline to enforce the minimum insurance requirements listed above shall not relieve Village of the responsibility for maintaining coverages in the aforesaid amounts. Village, upon request of Uline shall furnish to Uline certificates of insurance reflecting policies carried and limits of coverage as required above, which shall state that thirty (30) days' notice shall be given prior to cancellation, non-renewal or any material change in any such insurance coverage.

14. CONDEMNATION

14.1. In the event any portion of the Village Conduit, or the Rights in or upon which it has been installed, become the subject of a condemnation proceeding by any governmental agency or other party cloaked with the power of eminent domain for public purpose or use, then and in such event, it is agreed that Uline's interest (being its Proportionate Share of the Conduit) shall be severed from the Village interest in such proceeding. Uline shall be entitled to independently pursue an award for its interest in such proceedings and the parties hereto agree to have any such condemnation awards specifically allocated between Uline's interest and Village's interest. In the event Uline's interest in such proceeding cannot be severed from the Village's interest, Village shall be entitled to receive the entire award and thereafter distribute to Uline its Proportionate Share of the award for its interest in the Village Conduit after payment of Village's costs and expenses in securing the award (including reasonable attorney fees and disbursements).

14.2. Upon its receipt of a formal notice of condemnation or taking, Village fiber optic conduit shall notify Uline within (30) days of any condemnation proceeding filed against the Village Conduit, or the Rights in or upon which the IRU Fibers have been installed.

14.3. It is expressly recognized and understood by Uline that relocation costs resulting from any such condemnation proceeding may not be reimbursed by the condemning authority and, if Village relocates the Village Conduit, Uline shall pay its Proportionate Share of all costs associated with the relocation of the IRU Fibers in excess of such costs which were reimbursed by the condemning authority if Uline desires to continue its use of the IRU. If the IRU Fibers are relocated by Village pursuant to Article 14 herein, Uline shall pay to Village all condemnation awards given to Uline, if any, which relate to the relocation of the IRU Fibers.

15. ABANDONMENT

15.1. Should Uline decide to abandon all or part of its interest in the Village Conduit, it may do so by informing Village in writing. Uline shall remove its equipment and

electronics within sixty (60) days of such notification of abandonment by Uline, failing which Village may at its option remove same at Uline's cost and expense payable within thirty (30) days of receipt of the invoice. At the time of abandonment, Uline shall have no further rights with respect to its IRU. Such abandonment shall transfer any and all interest or rights to use the Village Conduit to Village, this Agreement shall terminate, and Uline shall then be relieved of any obligations to maintain or repair the Village Conduit.

- 15.2. Upon termination of this Agreement or abandonment of the IRU Fibers, Uline will provide access at no charge to its easement areas, and facilities as necessary for location and maintenance of the Village Conduit.

16. DEFAULT

- 16.1. Neither party shall be in default under this Agreement unless and until the other party shall have given the defaulting party written notice of such default and the defaulting party shall have failed to cure the default within thirty (30) days after written receipt of such notice; provided, however, that where a non-monetary default cannot be reasonably cured within the thirty (30) day period, if the defaulting party shall promptly proceed to cure the default with due diligence, the time for curing the default shall be extended for a period of up to ninety (90) days from the date of receipt of the default notice.
- 16.2. Subject to the dispute resolution procedures in Article 21, upon the failure by the defaulting party to timely cure any default after notice thereof from the non-defaulting party, the non-defaulting party may take any action it determines, in its discretion, to be necessary to correct the default, and/or pursue any legal remedies it may have under applicable law or principles of equity relating to the breach; provided, however, that Uline shall not take any action that would or might impair, hinder, damage, impede or otherwise adversely affect the ongoing maintenance, operation or use of any Village Conduit.
- 16.3. The parties acknowledge and agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. Subject to the dispute resolution procedures in Article 21, it is accordingly agreed that each party shall be entitled to injunctive or similar preliminary relief to prevent or cure breaches of the provisions of this Agreement by the other and to enforce specifically the terms and provisions hereof, this being in addition to any other remedy to which they may be entitled by law or equity.
- 16.4. An event of default shall also be deemed to have occurred if a party becomes insolvent, or institutes or has instituted against it bankruptcy proceedings which are not dismissed within ninety (90) days of filing, or makes a general assignment for the benefit of creditors, or if a receiver is appointed for the benefit of its creditors, or if a receiver is appointed on account of its insolvency, and the non-defaulting party may immediately terminate this Agreement.

17. NOTICES

- 17.1. Unless otherwise provided herein, all notices and communications concerning this Agreement shall be in writing and addressed as follows:

If to Village:

Village of Pleasant Prairie
Attn: Village Administrator
9915 39th Avenue
Pleasant Prairie, WI 53158

If to Uline:

Uline
Attention: Director of Construction
12575 Uline Dr.
Pleasant Prairie, WI 53158

- 17.2. Unless otherwise provided herein, notices shall be sent by certified U.S. Mail, return receipt requested, or by commercial overnight delivery service which provides acknowledgement of delivery and shall be deemed delivered: if sent by U.S. Mail, five (5) days after deposit, or if sent by commercial overnight delivery service, upon verification of receipt.

18. ASSIGNMENT & SUCCESSION

- 18.1. Subject to the provisions of this Article, each of the parties' respective rights and obligations hereunder, shall be binding upon and shall inure to the benefit of the parties hereto and each of their respective permitted successors and assigns.
- 18.2. Uline shall not assign, sublet or otherwise transfer its rights and obligations under this Agreement or in manner sell, assign, lease, grant an IRU with respect to, exchange, encumber, pledge, or otherwise in any manner transfer or make available to any third party the right to use, or use of, or access any of Uline's rights in the whole and discrete IRU Fibers (any of the foregoing, a "Restricted Transaction") or otherwise engage in a similar transaction with respect to any IRU Fibers in a manner designed or intended to circumvent the foregoing limitations, except where such Restricted Transaction is disclosed to Village in advance, and only upon approval by Village. Village shall not unreasonably withhold approval of such Restricted Transaction, but Village reserves the right to impose reasonable conditions on its approval which shall be memorialized in an amendment to this Agreement or Exhibit A as appropriate. Notwithstanding the above, approval of an assignment of this Agreement shall not be required if the assignment is to a Uline affiliated entity or to a third party that purchases or leases the building or buildings for which the IRU is intended to benefit.

19. GOVERNING LAW

19.1. This Agreement shall be interpreted and construed in accordance with the laws of the state of Wisconsin, without regard to its conflict of laws principles, with all disputes to be venued in Kenosha County, Wisconsin.

20. NOT A PARTNERSHIP

20.1. The parties agree that this Agreement does not create a partnership between, or a joint venture of Village fiber optic conduit and Uline.

21. DISPUTE RESOLUTION

21.1. It is the intent of Uline and Village that any disputes, which may arise between them, or between the employees of each of them, be resolved as quickly as possible. Quick resolution may, in certain circumstances, involve immediate decisions made by the parties' representatives. Village and Uline shall each designate representatives as points of contact and decision making with respect to the obligations and rights of the parties. Any disputed issues arising during the term of this Agreement shall in all instances be initially referred to the parties' designated representatives. The parties' designated representatives shall render a mutually agreeable resolution of the disputed issue, in writing, within ten (10) business days of such referral. Either party may modify the designated representative upon written notice to the other party.

21.2. When such informal resolution is not possible, the parties hereto agree to resolve such disputes through arbitration. Any dispute arising under or related to this Agreement (including the arbitrability of such a dispute and the existence, validity, interpretation, performance, termination or breach thereof) shall be finally settled by binding arbitration in accordance with the then current Commercial Arbitration Rules of the American Arbitration Association ("AAA"), with the arbitration to be commenced no later than two (2) years after such Claim accrues (in absence of which it shall be deemed waived) and to be conducted by a single neutral arbitrator with expertise in the telecommunications field (the "Tribunal") and judgment may be entered upon the award by any court of competent jurisdiction. All parties shall bear their own expenses unless otherwise provided in this Agreement and except that the parties shall equally share the expenses of the Tribunal and AAA (except for the required non-refundable filing fees which shall be paid solely by the party asserting the related claim). The arbitration hearing shall be held in Milwaukee, Wisconsin. The obligation herein to arbitrate shall not be binding upon any party with respect to payment of monetary sums due under this Agreement or with respect to requests for preliminary injunctions, temporary restraining orders, specific performance or other procedures in a court of competent jurisdiction to obtain interim relief when deemed necessary by such court to preserve the status quo or prevent irreparable injury pending resolution by arbitration of the actual dispute.

22. LIENS & ENCUMBRANCES.

22.1. Uline agrees and acknowledges that it has no right to use any of the fibers, other than the IRU Fibers in the Village Conduit. Furthermore, Uline shall keep the Village Conduit free from any liens, rights or claims of any third parties whatsoever and shall not pledge, encumber or grant any security interests in the foregoing.

23. OPERATIONS

23.1. Uline acknowledges and agrees that Village is not supplying nor is Village obligated to supply to Uline any optronics or electronics or optical or electrical equipment, all of which are the sole responsibility of Uline; nor is Village responsible for performing any work other than as specified in this Agreement or providing other facilities, including, without limitation, generators, batteries, air conditioners, fire protection, and monitoring and testing equipment.

24. RIGHTS

- 24.1. With respect to the Village Conduit to be delivered hereunder, Village will use commercially reasonable efforts to obtain the Rights that are necessary for the placement of the Village Conduit. It is expressly understood that Village's obligations under this Agreement are conditioned upon and shall in all respects be subject to the securing, term, conditions and continuation of such Rights. Village shall use commercially reasonable efforts to cause such Rights to remain effective through the Term of this Agreement and any renewal thereof on the understanding that continuation of such Rights may be outside of Village's reasonable control. Village shall have the right to initiate or contest any legal or equitable claims relating to the Rights. The out-of-pocket costs and expenses (including, without limitation, reasonable attorney's fees and expenses) incurred by Village in any such contest shall be shared by Uline and Village equally.
- 24.2. Upon the expiration or termination of any Right before the end of the Term that is necessary in order to grant, continue or maintain an IRU granted hereunder in accordance with the terms and conditions hereof, the Term of the IRU hereunder shall automatically expire upon such expiration or termination of the Right. Notwithstanding the foregoing, in the event Village elects to relocate the Village Conduit, and Uline desires to continue its use of the IRU, this Agreement shall remain in full force and effect and Uline shall pay Village Conduit for Uline's Proportionate Share of the reasonable costs and expenses incurred as a result of such relocation.
- 24.3. In certain cases, Village is regulated by rules, regulations and orders of state public service commissions, state public utility commissions, the FCC and courts with proper jurisdiction. In the event that this Agreement, or any part thereof, is subsequently deemed by a court or agency with proper jurisdiction to be in conflict with any law, rule, regulation or order, or Village in good faith believes this Agreement or any part thereof to be in conflict with any law, rule, regulation or order, Village may terminate or modify this Agreement without liability, but only to the extent needed to bring this Agreement into compliance.

EXHIBIT G

Notwithstanding, if Village chooses to modify this Agreement as provided above, then Uline shall have the right to accept such modification or terminate this Agreement.

25. MISCELLANEOUS

- 25.1. The headings of the Articles and the capitalization of non-defined words in this Agreement are strictly for convenience and shall not in any way be construed as amplifying or limiting any of the terms, provisions or conditions of this Agreement.
- 25.2. In construction of this Agreement, words used in the singular shall include the plural and the plural the singular, and "or" is used in the inclusive sense, in all cases where such meanings would be appropriate.
- 25.3. No provision of this Agreement shall be interpreted to require any unlawful action by either party. If any Article or clause of this Agreement is held to be invalid or unenforceable, then the meaning of that Article or clause shall be construed so as to render it enforceable to the extent feasible. If no feasible interpretation would save the section or clause, it shall be severed from this Agreement with respect to the matter in question, and the remainder of the Agreement shall remain in full force and effect. However, in the event such Article or clause is an essential element of the Agreement, the parties shall promptly negotiate a replacement section or clause that will achieve the intent of such unenforceable section or clause to the extent permitted by law.
- 25.4. This Agreement may be amended only by a written instrument executed by the party against whom enforcement of the modification is sought.
- 25.5. No failure to exercise and no delay in exercising, on the part of either party hereto, any right, power or privilege hereunder shall operate as a waiver hereof, except as expressly provided herein. Any waiver by either party of a breach of any provision of this Agreement shall not be deemed to be a waiver of any other or subsequent breach and shall not be construed to be a modification of the terms of this Agreement unless and until agreed to in writing by both parties.
- 25.6. In the event of a conflict or difference between the provisions of this Agreement and those of Exhibit A, the provisions of Exhibit A shall prevail. If there is a conflict or difference between this Agreement and other Exhibits, this Agreement shall prevail.
- 25.7. All actions, activities, consents, approvals and other undertakings of the parties in this Agreement shall be performed in a reasonable and timely manner.
- 25.8. Unless expressly defined herein, words having well known technical or trade meanings shall be so construed.
- 25.9. This Agreement may be executed simultaneously in one or more counterparts, each of which shall be deemed an original, but all such counterparts shall together constitute one and the same instrument.

EXHIBIT G

25.10. This Agreement, and any Exhibits referenced and attached hereto or to be attached hereto, constitute the entire agreement between the parties hereto with respect to the subject matter hereof and supersede any and all prior negotiations, understandings and agreements with respect hereto, whether oral or written.

EXHIBIT G

Village of Pleasant Prairie

By: _____

Title: _____

Date: _____

Route 165, LLC.

By: _____

Title: _____

Date: _____

EXHIBITS (all incorporated by reference in this Agreement):

- A: IRU Fiber Details and Route Maps
- B: Intentionally Deleted and Omitted
- C: Village Acceptance/Rejection Notice
- D: Routine Maintenance and Repair Standards

EXHIBIT A
IRU FIBER DETAILS

Uline: Route 165, LLC

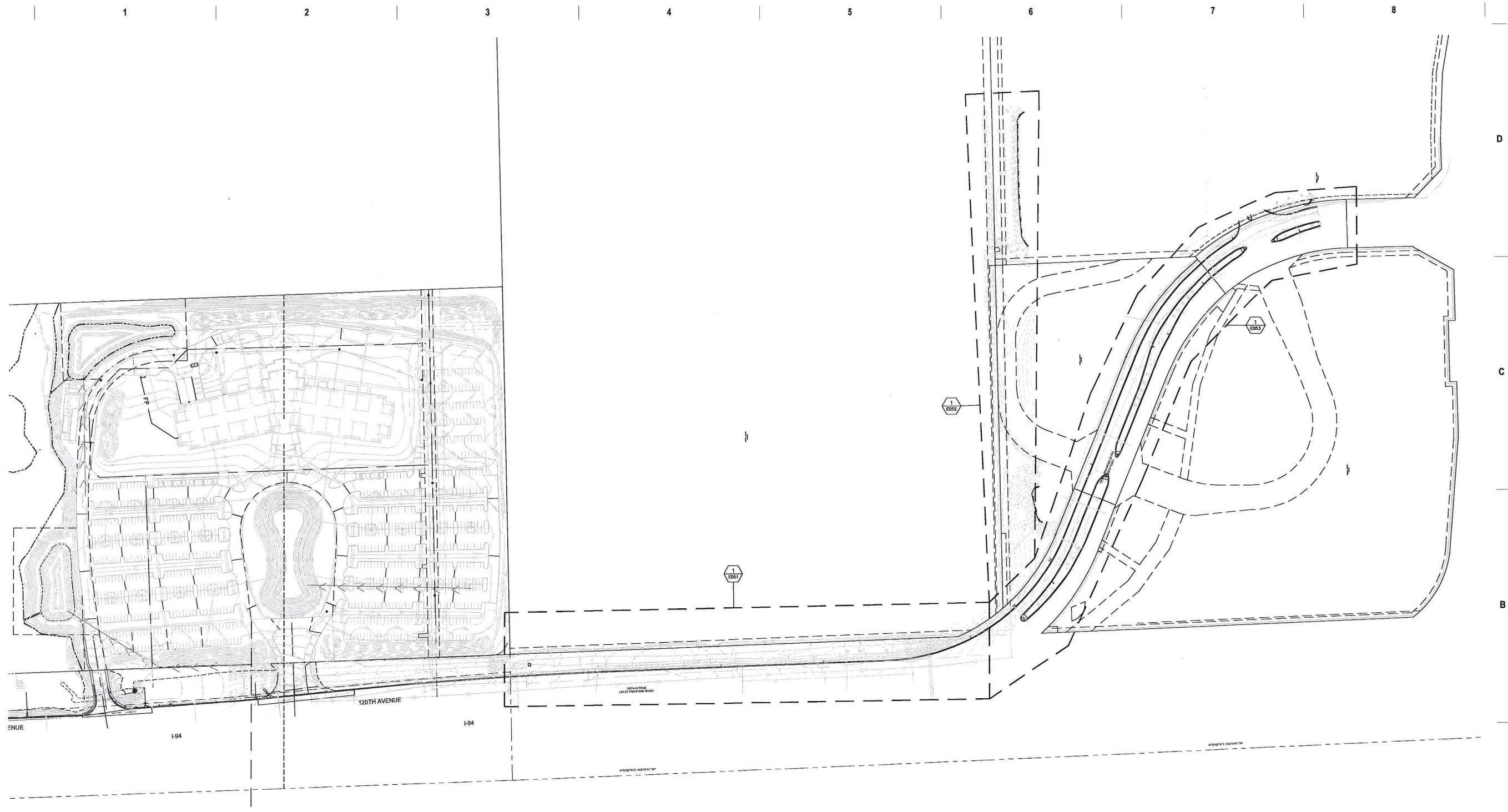
Estimated Conduit Length:

Number of Village Conduit: 2

Type of Construction: 100% Underground

Term of IRU Grant From: Effective Date to the date which is 20 years from the Effective Date.

Attachment(s): Route Map(s)



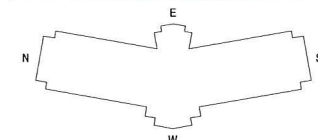
1 OVERALL TOPO SITE PLAN
E050 SCALE: 1" = 100'



milwaukee 333 East Chicago Street
Milwaukee, Wisconsin 53202
telephone 414.271.5350

madison 309 West Johnson Street, Suite 202
Madison, Wisconsin 53703
telephone 608.442.5350

KEY PLAN



ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
1	3-23-2016	E05 PACKAGE #1

PROJECT INFORMATION

ULINE H2 CORPORATE OFFICE

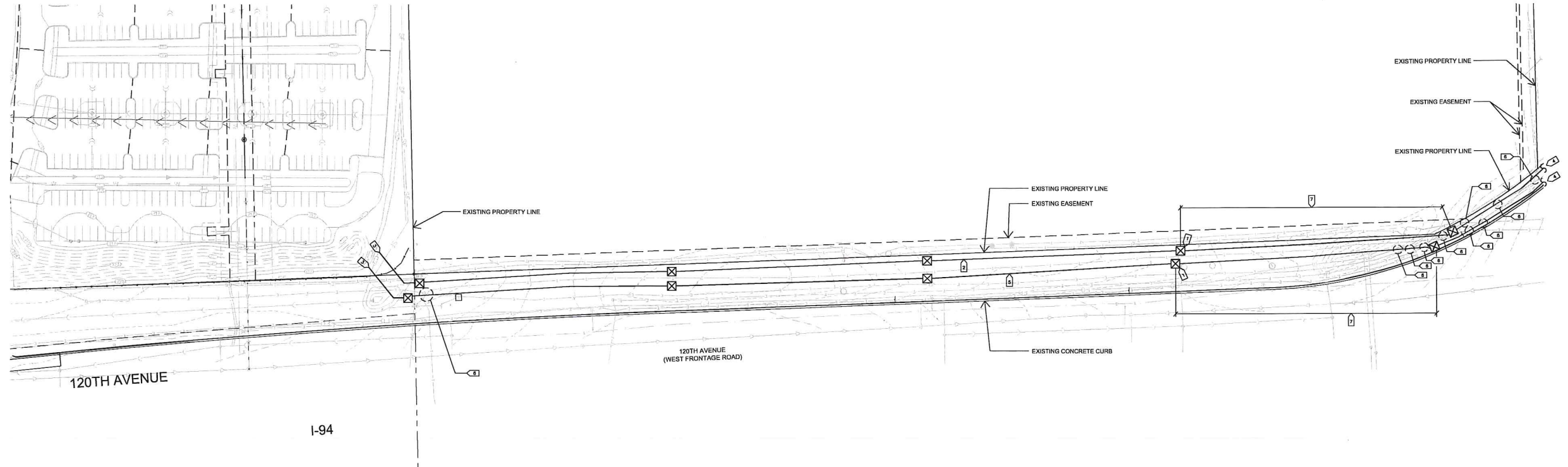
12100 Uline Place
Pleasant Prairie, Wisconsin 53158



SHEET INFORMATION

DATE: 12/18/15 OVERALL TOPO SITE PLAN
PROJECT NUMBER: 214344-01
PROJECT MANAGER: PEK

E050
© Eppstein Uhen Architects, Inc.



120TH AVENUE

120TH AVENUE
(WEST FRONTAGE ROAD)

I-94

1 PARTIAL TOPO SITE PLAN - AREA 1

E051 SCALE: 1" = 50'



SHEET NOTES -

1. ALL EMPTY CONDUITS ARE TO BE CAPPED, SEALED, AND PROVIDED WITH A PULL STRING AND TRACER WIRE.
2. ALL QUARTZITE BOXES SHALL HAVE A UNIQUE DESIGNATION EXACT DESIGNATIONS TO BE DETERMINED.
3. ALL CONDUIT AND BOX LOCATION SHALL BE VERIFIED BY CONSTRUCTION MANAGERS AND OWNERS PRIOR TO COMMENCING WORK.
4. CONTRACTOR SHALL HAVE THE OPTION TO EITHER PERFORM TRENCH DIGGING OR DIRECTIONAL BORE FOR THE CONDUIT INSTALLATION, UNLESS NOTED OTHERWISE.

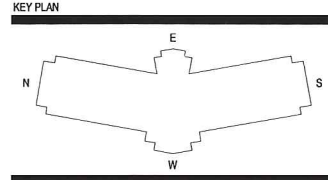
KEYED NOTES -

1. PROVIDE QUARTZITE BOX 24" WIDE X 36" LONG X 30" DEEP. COVER SHALL BE LABELLED "COMMUNICATION". SEE DETAIL 1/31/10, TYPICAL.
2. PROVIDE (2) 4" PVC CONDUITS, CONDUITS BETWEEN H1 AND H2, TYPICAL.
3. REFER TO ED11E FOR CONTINUATION.
4. REFER TO ED52 FOR CONTINUATION.
5. PROVIDE (2) 4" PVC CONDUITS, CONDUITS BETWEEN H2 AND W1, TYPICAL.
6. CONTRACTOR SHALL PERFORM EXPLORATORY DIGGING WHERE THE NEW CONDUIT CROSSES EXISTING UTILITY PRIOR TO COMMENCING WORK.
7. LENGTH OF CONDUIT SHALL BE DIRECTIONAL BORED.



milwaukee 333 East Chicago Street
Milwaukee, Wisconsin 53202
telephone 414.271.5350

madison 309 West Johnson Street, Suite 202
Madison, Wisconsin 53703
telephone 608.442.5350



ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
1	3.25.2016	E051 PACKAGE 44

PROJECT INFORMATION

ULINE H2 CORPORATE OFFICE

12100 Uline Place
Pleasant Prairie, Wisconsin 53158



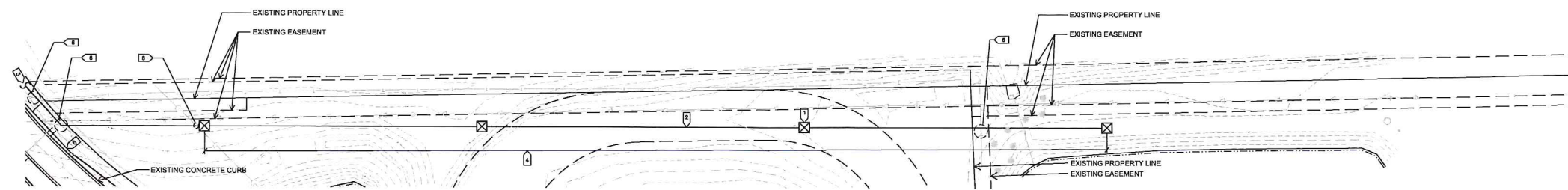
SHEET INFORMATION

DATE: 12/18/15
PROJECT NUMBER: 214344-01
PROJECT MANAGER: PEK

PARTIAL TOPO SITE PLAN - AREA 1

E051

© Eppstein Uhen Architects, Inc.



1 PARTIAL TOPO SITE PLAN - AREA 2
EDS2 SCALE: 1" = 50'



SHEET NOTES -

1. ALL EMPTY CONDUITS ARE TO BE CAPPED, SEALED, AND PROVIDED WITH A FULL STRING AND TRACER WIRE.
2. ALL QUARTZITE BOXES SHALL HAVE A UNIQUE DESIGNATION EXACT DESIGNATIONS TO BE DETERMINED.
3. ALL CONDUIT AND BOX LOCATION SHALL BE VERIFIED BY CONSTRUCTION MANAGER AND OWNER PRIOR TO COMMENCING WORK.
4. CONTRACTOR SHALL HAVE THE OPTION TO EITHER PERFORM TRENCH DIGGING OR DIRECTIONAL BORE FOR THE CONDUIT INSTALLATION, UNLESS NOTED OTHERWISE.

KEYED NOTES -

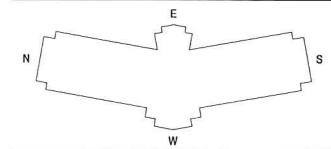
1. PROVIDE QUARTZITE BOX 24" WIDE X 36" LONG X 30" DEEP. COVER SHALL BE LABELLED: "COMMUNICATION". SEE DETAIL 1/ES10, TYPICAL.
2. PROVIDE (2) 4" PVC CONDUITS. CONDUITS BETWEEN H1 AND H2. TYPICAL.
3. REFER TO EDS1 FOR CONTINUATION.
4. LENGTH OF CONDUIT SHALL BE DIRECTIONAL BORED.
5. CONDUITS BETWEEN H2 AND W1. REFER TO SHEET EDS3 FOR MORE INFORMATION.
6. SHALL PERFORM EXPLORATORY DIGGING WHERE THE NEW CONDUIT CROSSES EXISTING UTILITY PRIOR TO COMMENCING WORK.



milwaukee 333 East Chicago Street
Milwaukee, Wisconsin 53202
telephone 414.271.5350

madison 309 West Johnson Street, Suite 202
Madison, Wisconsin 53703
telephone 608.442.5350

KEY PLAN



ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
1	3-23-2016	E0 PACKAGE #1

PROJECT INFORMATION

ULINE H2 CORPORATE OFFICE

12100 Uline Place
Pleasant Prairie, Wisconsin 53158

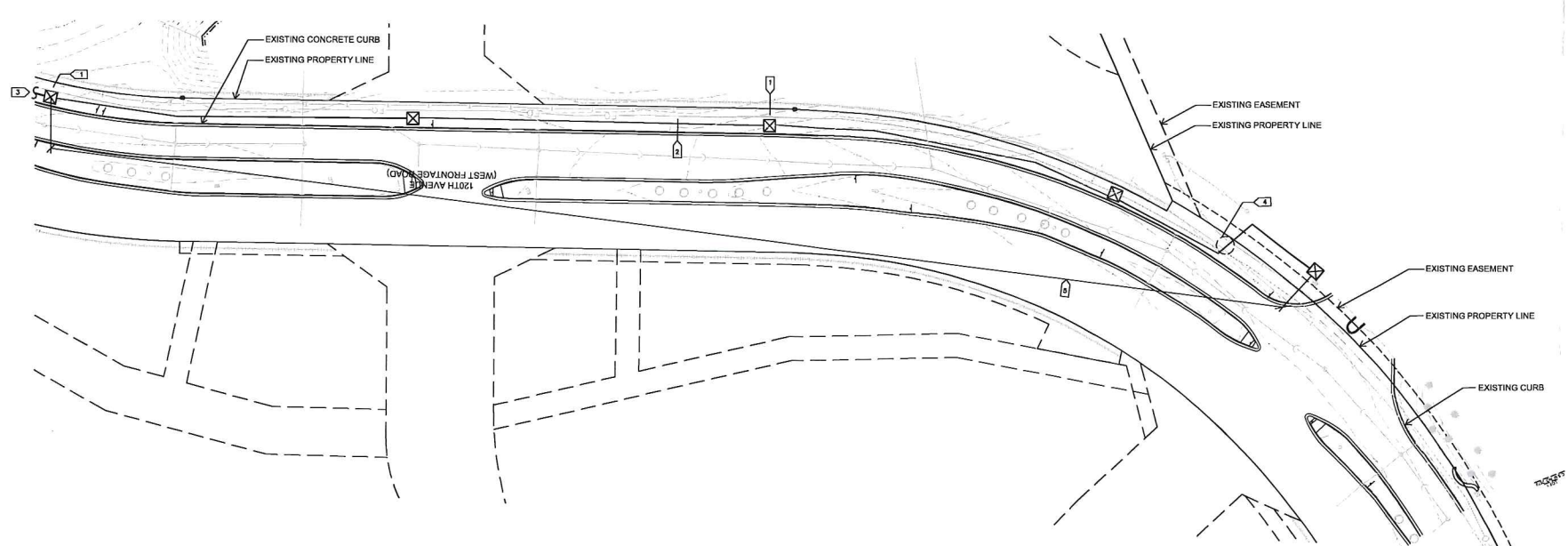


SHEET INFORMATION

DATE: 12/18/15
PROJECT NUMBER: 214344-01
PROJECT MANAGER: PEK

PARTIAL TOPO SITE
PLAN - AREA 2

E052



1
E053 **PARTIAL TOPO SITE PLAN - AREA 3**
SCALE: 1" = 50'

SHEET NOTES -

1. ALL EMPTY CONDUITS ARE TO BE CAPPED, SEALED, AND PROVIDED WITH A PULL STRING AND TRACER WIRE.
2. ALL QUARTZITE BOXES SHALL HAVE A UNIQUE DESIGNATION EXACT DESIGNATIONS TO BE DETERMINED.
3. ALL CONDUIT AND BOX LOCATION SHALL BE VERIFIED BY CONSTRUCTION MANAGER AND OWNER PRIOR TO COMMENCING WORK.
4. CONTRACTOR SHALL HAVE THE OPTION TO EITHER PERFORM TRENCH DIGGING OR DIRECTIONAL BORE FOR THE CONDUIT INSTALLATION, UNLESS NOTED OTHERWISE.

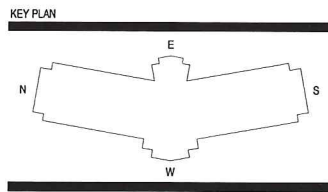
KEYED NOTES -

1. PROVIDE QUARTZITE BOX 24" WIDE X 36" LONG X 30" DEEP. COVER SHALL BE LABELLED: "COMMUNICATION". SEE DETAIL 1/2310, TYPICAL.
2. PROVIDE (2) 4" PVC CONDUITS. CONDUITS BETWEEN H1 AND H2, TYPICAL.
3. REFER TO E052 FOR CONTINUATION.
4. CONTRACTOR SHALL PERFORM EXPLORATORY DIGGING WHERE THE NEW CONDUIT CROSSES EXISTING UTILITY PRIOR TO COMMENCING WORK.
5. LENGTH OF CONDUIT SHALL BE DIRECTIONAL BORED.



milwaukee 333 East Chicago Street
Milwaukee, Wisconsin 53202
telephone 414.271.5350

madison 309 West Johnson Street, Suite 202
Madison, Wisconsin 53703
telephone 608.442.5350



ISSUANCE AND REVISIONS

#	DATE	DESCRIPTION
1	3.25.2015	ISS PACKAGE #4

PROJECT INFORMATION

ULINE H2 CORPORATE OFFICE

12100 Uline Place
Pleasant Prairie, Wisconsin 53158

SHEET INFORMATION

DATE: 12/18/15
PROJECT NUMBER: 214344-01
PROJECT MANAGER: PEK

PARTIAL TOPO SITE PLAN - AREA 3

E053

© Eppstein Uhen Architects, Inc.

EXHIBIT B
INTENTIONALLY DELETED

EXHIBIT C
VILLAGE ACCEPTANCE/REJECTION NOTICE

Check one box:

Conduit Accepted (fill in acceptance statement below)

Pursuant to Article III of the IRU Agreement between Village of Pleasant Prairie, and Route 165, LLC. ("Uline"), dated _____, Village hereby accepts all right and title to the Village Conduit.

Conduit Rejected (fill in reason statement below)

Reason for Rejection:

Name: _____

Signature: _____

Title: _____

Date: _____

EXHIBIT D
ROUTINE MAINTENANCE STANDARDS

Maintenance of the Village Conduit shall be completed on a recurring basis and documented. Properly installed Village Conduit normally needs minimal routine maintenance. Most hazards to Village Conduit and Fibers are external in nature, such as dig ups, pole hits, gunshots, etc. Most destructive events are detected immediately and corrected with conduit restoration. A well-implemented maintenance plan will better permit correction of marginal conditions that might otherwise become restoration events.

CONDUIT ROUTE SURVEILLANCE

Village Conduit should be periodically inspected. During this periodic inspection the Conduit route is driven/walked to inspect for discrepancies that may affect cable integrity. Any discrepancies found are documented and forwarded to the appropriate personnel for correction and repair as necessary. The following are some items that will be inspected:

- Conduit route integrity (e.g.: erosion)
- Construction activity in the area near the cable

RESOLUTION NO. 16-14

AUTHORIZING THE SECOND AMENDMENT TO THE SETTLEMENT AND COOPERATION AGREEMENT BETWEEN THE VILLAGE OF BRISTOL AND THE VILLAGE OF PLEASANT PRAIRIE.

WHEREAS, Pleasant Prairie and the Town of Bristol executed that certain "1997 Settlement and Cooperation Agreement By and Between the Village of Pleasant Prairie, the Pleasant Prairie Water Utility, the Pleasant Prairie Sewer Utility District "D", the Pleasant Prairie Sewer Utility District No. "1", and the Pleasant Prairie Sewer Utility District "F"; and the Town of Bristol, the Town of Bristol Utility District No. 3, the Town of Bristol Utility District No. 5, and the Town of Bristol Water Utility District" (collectively, the "Town Entities"), effective as of November 7, 1997 (hereinafter the "1997 Settlement and Cooperation Agreement" or the "Agreement"), which Agreement was intended to resolve the then-current disputes between the Pleasant Prairie Entities and the Town Entities and to create a framework for resolution of future issues which may arise from time to time; and

WHEREAS, as was contemplated in paragraph 8 of the Agreement, a portion of the Town of Bristol has now been incorporated as the Village of Bristol; and

WHEREAS, the Village Entities are the successors in interest to the Town Entities and, pursuant to Section 21 of the Agreement, the Agreement are is binding on the Village Entities; and

WHEREAS, the Parties have encountered particular situations that were not fully contemplated at the time the Agreement was executed, necessitating an amendment to the Agreement; and

WHEREAS, among other things, the Cooperation Agreement prohibits the replacement or reconstruction of an existing single-family dwelling unless the lot or parcel upon which the dwelling is located is first served with municipal sanitary sewer service, as more fully set forth in the 1997 Settlement and Cooperation Agreement;

WHEREAS, the Village of Pleasant Prairie and Village of Bristol had previously discussed at bi-annual meetings the provision of retail water service by the Village of Pleasant Prairie to the Village of Bristol for territory within Bristol immediately adjacent to the Village of Pleasant Prairie and owned by PDD, LLC in anticipation of development in that territory by PDD, LCC, and the Village of Pleasant Prairie had express some willingness to provide this retail water service; and

WHEREAS, that development has not occurred, and the provision of that retail water service by the Village of Pleasant Prairie is no longer desired;

WHEREAS, the Agreement was amended once before, pursuant to that certain First Amendment to 1997 Settlement and Cooperation Agreement, dated May 17, 2010 (the "First Amendment"); and

WHEREAS, at a duly-called and noticed meeting of the Village Board held on April 18, 2016, at which a quorum was present, the following resolution was adopted:

NOW THEREFORE BE IT RESOLVED, that the terms and conditions of that certain Second Amendment to the 1997 Settlement and Cooperation Agreement, by and between the Village of Pleasant Prairie and the Village of Bristol, a true and correct copy of which is attached hereto, are approved in all respects and the Village President and the Village Clerk are hereby authorized to execute said amendment on behalf of the Village of Pleasant Prairie.

Dated this 18th day of April, 2016.

VILLAGE OF PLEASANT PRAIRIE

By _____
John P. Steinbrink, President

Attest:

Jane M. Romanowski, Clerk

Ayes: _____

Noes: _____

**SECOND AMENDMENT TO 1997 SETTLEMENT
AND COOPERATION AGREEMENT**

THIS SECOND AMENDMENT TO THE 1997 SETTLEMENT AND COOPERATION AGREEMENT (this "Second Amendment") is made and entered into by and between the Village of Pleasant Prairie, the Pleasant Prairie Water Utility, the Pleasant Prairie Sewer Utility (formerly Pleasant Prairie Sewer Utility District "D", the Pleasant Prairie Sewer Utility District No. "1", and the Pleasant Prairie Sewer Utility District "F") (collectively "Pleasant Prairie Entities") and the Village of Bristol, the Village of Bristol Utility District No. 3, the Village of Bristol Water Utility District No. 5 and the Village of Bristol Water Utility District (collectively "Bristol Entities"). The Pleasant Prairie Entities and the Bristol Entities are collectively referred to herein as the "Parties."

RECITALS:

WHEREAS, Pleasant Prairie and the Town of Bristol executed that certain "1997 Settlement and Cooperation Agreement By and Between the Village of Pleasant Prairie, the Pleasant Prairie Water Utility, the Pleasant Prairie Sewer Utility District "D", the Pleasant Prairie Sewer Utility District No. "1", and the Pleasant Prairie Sewer Utility District "F"; and the Town of Bristol, the Town of Bristol Utility District No. 3, the Town of Bristol Utility District No. 5, and the Town of Bristol Water Utility District" (collectively, the "Town Entities"), effective as of November 7, 1997 (hereinafter the "1997 Settlement and Cooperation Agreement" or the "Agreement"), which Agreement was intended to resolve the then-current disputes between the Pleasant Prairie Entities and the Town Entities and to create a framework for resolution of future issues which may arise from time to time; and

WHEREAS, as was contemplated in paragraph 8 of the Agreement, a portion of the Town of Bristol has now been incorporated as the Village of Bristol; and

WHEREAS, the Village Entities are the successors in interest to the Town Entities and, pursuant to Section 21 of the Agreement, the Agreement are is binding on the Village Entities; and

WHEREAS, the Parties have encountered particular situations that were not fully contemplated at the time the Agreement was executed, necessitating an amendment to the Agreement; and

WHEREAS, among other things, the Cooperation Agreement prohibits the replacement or reconstruction of an existing single-family dwelling unless the lot or parcel upon which the dwelling is located is first served with municipal sanitary sewer service, as more fully set forth in the 1997 Settlement and Cooperation Agreement; and

WHEREAS, the Village of Pleasant Prairie and Village of Bristol had previously agreed that the provision of retail water service by the Village of Pleasant Prairie to the Village of Bristol for territory within Bristol immediately adjacent to the Village of Pleasant Prairie and owned by PDD, LLC in anticipation of development in that territory by PDD, LCC; and

WHEREAS, that development has not occurred, and the provision of that retail water service by the Village of Pleasant Prairie is no longer desired; and

WHEREAS, the Agreement was amended once before, pursuant to that certain First Amendment to 1997 Settlement and Cooperation Agreement, dated May 17, 2010 (the "First Amendment"); and

WHEREAS, the Parties wish to further amend the Agreement on the terms and conditions set forth in this Second Amendment;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby mutually acknowledged, the parties hereto do hereby enter into the following agreements:

1. Incorporation of Recitals. The foregoing Recitals are made a part of this Second Amendment.
2. Amendment to Allow Reconstruction of Existing Single-Family Residence. Sections 6 (b) and 6.(e) of the Agreement is hereby amended and restated as follows:

(b) Zoning. As part of the Section 66.023 cooperative plan agreement contemplated by this Agreement, pursuant to subsection 66.023(7m) of the Wisconsin Statutes, the Village shall promptly adopt a zoning ordinance relating to that portion of the Village Growth Area which is outside the Village, and the Town shall promptly adopt a zoning ordinance relating to the Town Service Area and to those portions of the Village Supervised Drainage Area that are outside of the Village Growth Area and the Town Service Area. Both the Village zoning ordinance and the Town zoning ordinance contemplated by this subparagraph 6(b) shall prohibit the use of any on-site sewage treatment facility or any holding tank, except (i) under the circumstances and subject to the conditions set out in subparagraph 6(c) of this Agreement, (ii) as part of the replacement or reconstruction of a single-family dwelling, or (iii) except that the continuation of such restrictions within those portions of the Village Supervised Drainage Area that are outside of the Village Growth Area and the Town Service Area shall not be required by the Village in areas with respect to which the Village has not timely committed to provide sanitary sewer service pursuant to subparagraph 4(c) of this Agreement. The Town's zoning ordinance shall generally permit development of the type that will utilize the Village's sewerage facilities.

(e) Sewer Service Required For Any New Or Expanded Uses, Structures, Development Activities Or For Any Divisions Of Land In Town Service Area. Except as provided in subparagraph 6(c), above, no new or expanded land use, nor any new, expanded, structurally altered or rebuilt structure, nor any new or expanded development activity, nor any new or expanded development-related land disturbance, nor any certified survey map, land division or subdivision, shall be permitted or approved by the Town on or involving any land within the Town Service Area (or on or involving any land in those portions of the Village Supervised Drainage Area that are outside the Village Growth Area and the Town Service Area, after the Village has timely committed to provide sanitary sewer service to the area in question pursuant to subparagraph 4(c) of this Agreement) unless the land is first served with municipal sanitary sewerage service pursuant to this Agreement; provided, however, that (i) the replacement or reconstruction of a single-family dwelling; and (ii) new single-family residential accessory uses and structures and new agricultural

accessory uses and structures shall be permitted if a principal single-family residential use and structure, or if a principal agricultural use and structure, respectively, are already located on the same lot or parcel, in accordance with presently applicable standards and regulations. The Town shall promptly adopt, and thereafter maintain and vigorously enforce, ordinance provisions that provide a specific police-power basis for the denials contemplated in this subparagraph.

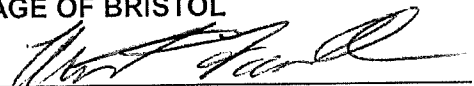
3. Amendment to Confirm That Retail Water Service will not be provided by Pleasant Prairie. The following sentence is added to Section 5 of the Agreement:

At present, the Village of Pleasant Prairie and (now) Village of Bristol agree that the Village of Pleasant Prairie shall have no obligation to provide retail water service to any territory within the Village of Bristol.

4. Incorporation of Recitals. The foregoing Recitals are made a part of this Second Amendment.
5. Continuation of Prior Agreement. Except as specifically modified herein, the provisions of the 1997 Settlement and Cooperation Agreement, as previously amended by the First Amendment, shall continue in full force and effect and shall be binding upon the Parties.
6. Effective Date. The effective date of this Amendment shall be the last date signed by any officer of any party hereto.

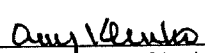
[Signature pages follow.]

VILLAGE OF BRISTOL

By: 
Mike Farrell, President

Date: 3/28/16

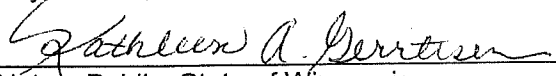
Attest:

BY: 
Amy Klemko, Clerk

Date: 3/28/16

STATE OF WISCONSIN)
) SS.
COUNTY OF KENOSHA)

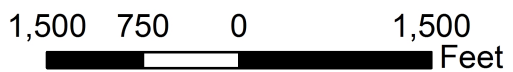
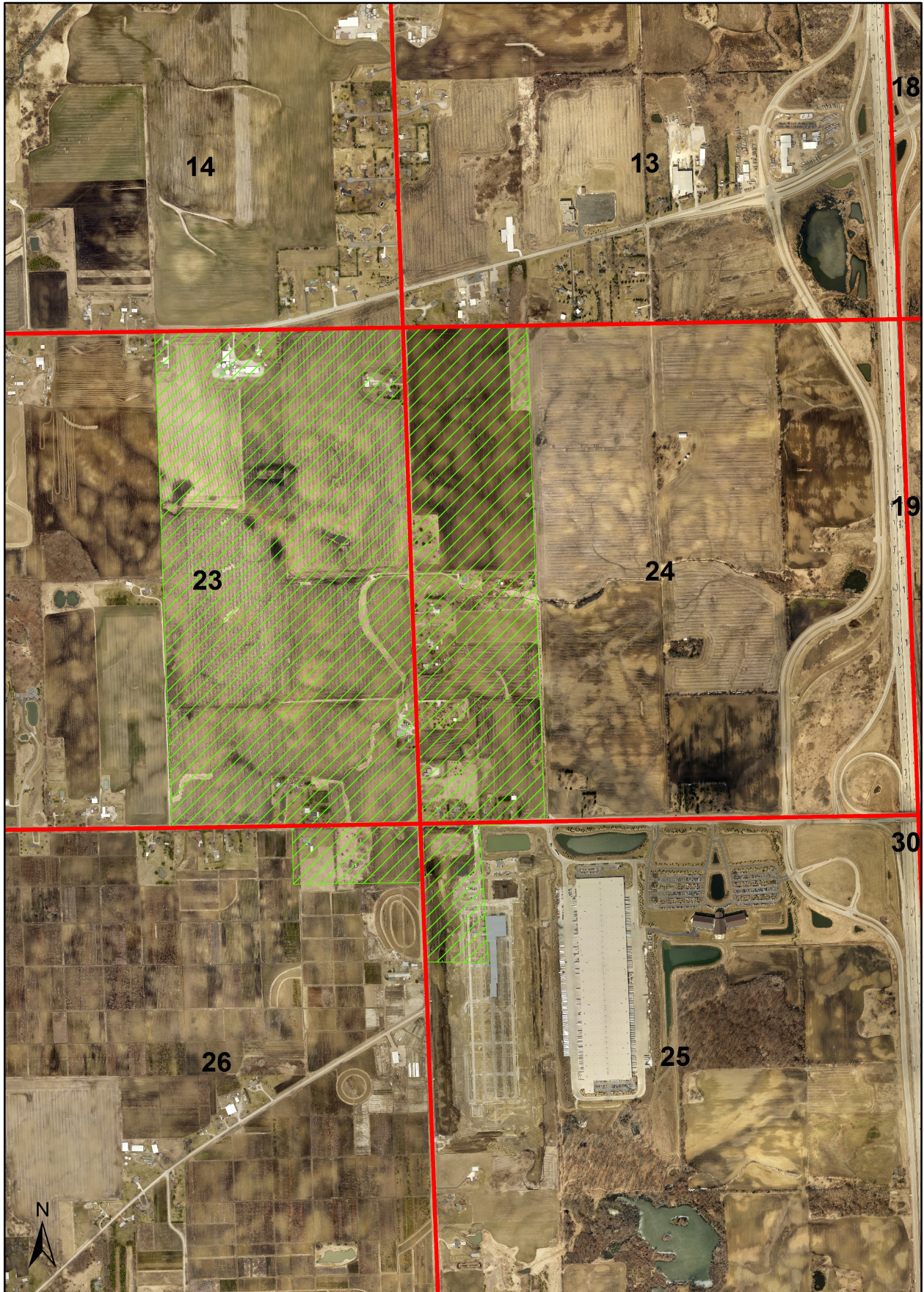
The foregoing agreement was acknowledged before me this 28th day of March, 2016 by Mike Farrell, President and Amy Klemko, Clerk of The Village of Bristol.


Notary Public, State of Wisconsin
My Commission expires: 3-6-2020

Approved to form:

Daniel A. O'Callaghan, Village Attorney

Bristol Sewer Service Area



Source: Village of Pleasant Prairie



Office of the Director of Public Works
John Steinbrink Jr., P.E.

To: Michael Pollocoff
From: John Steinbrink, Jr.
Subject: Bid Package #3 Award of Contract – Project #54103 Equipment Storage at Roger Prange Center
Date: April 18, 2016

On Tuesday, April 5th, sealed bids for the above referenced project were received until 2:00 p.m., at the Village Hall, 9915 39th Ave., Pleasant Prairie, WI. 53158. The bids were publicly opened and read aloud. A copy of the bid tabulation is attached for your reference.

Bid Package #3 consists of concrete foundations, miscellaneous metals, general trades, roofing, overhead doors, glass and glazing, painting, floor sealer, fire protection, plumbing, HVAC and electrical and is part of a larger project, Project # 54103- Equipment Storage at Roger Prange Center. This capital project was approved during the October 26, 2015 Village Board Meeting.

The following are the low bids for the individual contracts for this project:

<u>Contract</u>	<u>Contractor</u>	<u>Bid Amount</u>
Concrete Foundations	Riley Construction	\$ 115,250
Misc. Metals	Ace Iron	\$ 18,685
General Trades	Riley Construction	\$ 26,080
Roofing	Van's Roofing	\$ 212,280
Overhead Doors	Consolidated Doors	\$ 33,302
Glass & Glazing	Omni Glass	\$ 47,352
Painting	Postorino Decorating	\$ 30,598
Floor Sealer	L&A Crystal	\$ 18,900
Fire Protection	Design Build Fire Protection	\$ 56,560
Plumbing	Lee Plumbing Mechanical	\$ 165,525
HVAC	Lee Plumbing Mechanical	\$ 140,925
Electrical	Valiant Electric	\$ 171,448
	Total Award Bid Package #3	\$1,036,905

The approved 2016 General Fund Capital Budget for this project is \$3,196,260.

Riley Construction Company, who is the general contractor for this project recommends the above contract awards and staff concurs.

BID TABULATION



Contract: Concrete Foundations
Bid Due Date: April 5, 2016
Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
Location: Pleasant Prairie, WI
Owner: Village of Pleasant Prairie

BID ITEM	SUBCONTRACTOR/SUPPLIER				
	Riley Construction	Rasch Construction	Bane Nelson		
Base Bid	\$115,250				
Bid Adjustments	N/A				
Bid Bond Included (Yes/No)	Yes	Declined to Bid	Declined to Bid		
Acknowledge Addendums	X				
Contract Value	\$115,250				

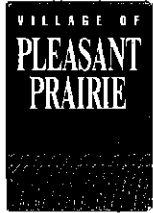
Recommended Award: Riley Construction

Comments The excavation process for F110 and F126 footings should be reviewed with VOPP. It may be more cost effective to excavate wider trench footings at these locations. There will be an additional concrete cost for the wider footings, but it may save more money on the excavation and backfill work.

Owner Approval: _____

Date: _____

BID TABULATION



Contract: Misc Metals
Bid Due Date: April 5, 2016
Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
Location: Pleasant Prairie, WI
Owner: Village of Pleasant Prairie

SUBCONTRACTOR/SUPPLIER					
	Ace Iron	Cardinal Fabricating	Metro Welding		
BID ITEM					
Base Bid	\$18,685				
Bid Adjustments	N/A				
Bid Bond Included (Yes/No)	Yes	Declined to Bid	Declined to Bid		
Acknowledge Addendums	X				
Contract Value	\$18,685				

Recommended Award: Ace Iron

Comments See comments on Roofing bid tabulation for possible additional steel costs.

Owner Approval: _____

Date: _____

BID TABULATION



Contract: General Trades
Bid Due Date: April 5, 2016
Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
Location: Pleasant Prairie, WI
Owner: Village of Pleasant Prairie

SUBCONTRACTOR/SUPPLIER					
BID ITEM	Riley Construction	Rasch Construction	Bane Nelson		
Base Bid	\$26,080				
Bid Adjustments	N/A				
Bid Bond Included (Yes/No)	Yes	Declined to Bid	Declined to Bid		
Acknowledge Addendums	X				
Contract Value	\$26,080				

Recommended Award: Riley Construction

Comments _____

Owner Approval: _____

Date: _____

BID TABULATION



Contract: Roofing
 Bid Due Date: April 5, 2016
 Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
 Location: Pleasant Prairie, WI
 Owner: Village of Pleasant Prairie

SUBCONTRACTOR/SUPPLIER								
	Van's Roofing	Carlson Roofing	Cudahy Roofing	Langer Roofing	MM Schranz Roofing	Nations Roof	Winding Roofing	Statewide Roofing
BID ITEM								
Base Bid	\$196,080	\$244,600	\$218,500	\$236,225	\$236,040	\$264,418	\$273,607	\$431,375
Bid Adjustments	\$16,200	\$16,000	\$16,000	\$16,350	\$12,000	\$21,750	\$11,000	\$16,000
Bid Bond Included (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NO
Acknowledge Addendums	X	X	X	X	X	X	X	X
Contract Value	\$212,280	\$260,600	\$234,500	\$252,575	\$248,040	\$286,168	\$284,607	\$447,375

Recommended Award: Van's Roofing

Comments Bid Adjustments adds roof pavers around makeup air units. Van's Roofing is stating that additional ballast is required for the roof area over the overhead doors. R.A. Smith will need to verify that the structural steel is designed to support the additional 5 lb. per square foot.

Owner Approval: _____

Date: _____

BID TABULATION



Contract: Overhead Doors
Bid Due Date: April 5, 2016
Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
Location: Pleasant Prairie, WI
Owner: Village of Pleasant Prairie

SUBCONTRACTOR/SUPPLIER					
	Consolidated Doors	A & Door Service	Wilde's Garage Doors		
BID ITEM					
Base Bid	\$33,302	\$46,097	Declined to Bid		
Bid Adjustments	N/A	N/A			
Bid Bond Included (Yes/No)	Yes	NO			
Acknowledge Addendums	X	X			
Contract Value	\$33,302	\$46,097			

Recommended Award: Consolidated Doors

Comments _____

Owner Approval: _____

Date: _____

BID TABULATION



Contract: Glass & Glazing
Bid Due Date: April 5, 2016
Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
Location: Pleasant Prairie, WI
Owner: Village of Pleasant Prairie

	SUBCONTRACTOR/SUPPLIER					
	Omni Glass	Town & Country Glass	Klein Dickert	Milwaukee Plate Glass	Lurie Glass	Ackman Glass
BID ITEM						
Base Bid	\$47,352	\$79,847	Declined to Bid	Declined to Bid	Declined to Bid	Declined to Bid
Bid Adjustments	N/A	N/A				
Bid Bond Included (Yes/No)	Yes	Yes				
Acknowledge Addendums	X	X				
Contract Value	\$47,352	\$79,847				

Recommended Award: Omni Glass

Comments _____

Owner Approval: _____

Date: _____

BID TABULATION



Contract: Painting
Bid Due Date: April 5, 2016
Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
Location: Pleasant Prairie, WI
Owner: Village of Pleasant Prairie

SUBCONTRACTOR/SUPPLIER						
BID ITEM	Postorino Decorating	Programmed Painting	Nehi's & Associates	Devine Painting	JDR Painting	Olympic Painting
Base Bid	\$25,848	\$35,879	\$38,730	Late Bid	Declined to Bid	Declined to Bid
Bid Adjustments	\$4,750	N/A	N/A			
Bid Bond Included (Yes/No)	Yes	NO	Yes			
Acknowledge Addendums	X	X	X			
Contract Value	\$30,598	\$35,879	\$38,730			

Recommended Award: Postorino Decorating

Comments Bid Adjustments adds caulking of door frames and interior floor striping to Postorino's bid (the other bidders included this work).

Owner Approval: _____

Date: _____

BID TABULATION



Contract: Floor Sealer
Bid Due Date: April 5, 2016
Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
Location: Pleasant Prairie, WI
Owner: Village of Pleasant Prairie

SUBCONTRACTOR/SUPPLIER					
	L&A Crystal	Kevco	Floorcare USA	Applied Flooring Solutions	
BID ITEM					
Base Bid	\$18,900	\$25,242	\$70,108	Declined to Bid	
Bid Adjustments	N/A	N/A	N/A		
Bid Bond Included (Yes/No)	X	X	X		
Acknowledge Addendums	X	X	X		
Contract Value	\$18,900	\$25,242	\$70,108		

Recommended Award: L&A Crystal

Comments L&A Crystal and Kevco are proposing (1) coat of Ashford Formula sealer, which is a hardener and densifier.
Floorcare USA is proposing a 2-coat system - one coat of Prosoco Consolideck LS (similar to Ashford) and
one coat of Prosoco SLX100 (a water and oil repellent). Cleaning and filling the joints is not included in these
costs.

Owner Approval: _____

Date: _____

BID TABULATION



Contract: Fire Protection
Bid Due Date: April 5, 2016
Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
Location: Pleasant Prairie, WI
Owner: Village of Pleasant Prairie

SUBCONTRACTOR/SUPPLIER						
BID ITEM	Design Build Fire Protection	Total Mechanical	Absolute Fire Protection	Automatic Fire Systems	Flannery Fire Protection	USA Fire Protection
Base Bid	\$54,060	\$73,950	\$98,400	\$80,352	\$108,700	\$94,577
Bid Adjustments	\$2,500	N/A	N/A	N/A	N/A	N/A
Bid Bond Included (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes
Acknowledge Addendums	X	X	X	X	X	X
Contract Value	\$56,560	\$73,950	\$98,400	\$80,352	\$108,700	\$94,577

Recommended Award: Design Build Fire Protection

Comments Bid Adjustments adds all-terrain lift cost to Design Build's bid (the other bidders included this equipment).

Owner Approval: _____

Date: _____

BID TABULATION



Contract: Plumbing
Bid Due Date: April 5, 2016
Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
Location: Pleasant Prairie, WI
Owner: Village of Pleasant Prairie

SUBCONTRACTOR/SUPPLIER						
BID ITEM	Lee Plumbing Mechanical Contractors	Martin Petersen Co.	Southport Heating Plumbing & Geothermal	Cornerstone Plumbing	Ideal Plumbing	Titan Plumbing
Base Bid	\$162,025	\$189,618	\$213,816	Declined to Bid	Declined to Bid	Declined to Bid
Bid Adjustments	\$3,500	\$3,500	\$3,500			
Bid Bond Included (Yes/No)	Yes	Yes	Yes			
Acknowledge Addendums	X	X	X			
Contract Value	\$165,525	\$193,118	\$217,316			

Recommended Award: Lee Plumbing Mechanical Contractors

Comments Bid Adjustments adds hauling off interior utility spoils.

Owner Approval: _____

Date: _____

BID TABULATION



Contract: HVAC
Bid Due Date: April 5, 2016
Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
Location: Pleasant Prairie, WI
Owner: Village of Pleasant Prairie

SUBCONTRACTOR/SUPPLIER						
	Lee Plumbing Mechanical Contractors	Al Misurelli & Son, Inc.	Martin Petersen Co.	Southport Heating Plumbing & Geothermal	Butters-Fetting Co.	Total Mechanical
BID ITEM						
Base Bid	\$140,925	\$194,552	\$198,330	\$150,235	Declined to Bid	Declined to Bid
Bid Adjustments	N/A	N/A	N/A	N/A		
Bid Bond Included (Yes/No)	Yes	NO	Yes	Yes		
Acknowledge Addendums	X	X	X	X		
Contract Value	\$140,925	\$194,552	\$198,330	\$150,235		

Recommended Award: Lee Plumbing Mechanical Contractors

Comments This contract is for the radiant heat option.

Owner Approval: _____

Date: _____

BID TABULATION



Contract: Electrical
 Bid Due Date: April 5, 2016
 Bid Due Time: 2:00 PM

Project: Department of Public Works Facility
 Location: Pleasant Prairie, WI
 Owner: Village of Pleasant Prairie

SUBCONTRACTOR/SUPPLIER								
	Valiant Electric	Staff Electric	Roman Electric	Electrical Contractors of WI, Inc.	Lee Electrical, Inc.	Delta Electric	Lemberg Electric	Rewald Electric
BID ITEM								
Base Bid	\$165,948	\$195,536	\$166,057	\$200,843	\$216,832	\$208,006	\$218,142	\$191,684
Bid Adjustments	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500
Bid Bond Included (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Acknowledge Addendums	X	X	X	X	X	X	X	X
Contract Value	\$171,448	\$201,036	\$171,557	\$206,343	\$222,332	\$213,506	\$223,642	\$197,184

Recommended Award: Valiant Electric

Comments: This contract is for the Lithonia LED light fixture option. Bid Adjustments adds interior electrical trenching.

Owner Approval: _____

Date: _____



State of Wisconsin
Governor Scott Walker

Department of Agriculture, Trade and Consumer Protection
Ben Brancel, Secretary

April 5, 2016

MICHAEL R POLLOCOFF ADMNSTR
VILLAGE OF PLEASANT PRAIRIE
9915 39TH AVE
PLEASANT PRAIRIE WI 53158-6504

Dear Mr. Pollocoff:

The Village of Pleasant Prairie has a contract with the Department of Agriculture, Trade and Consumer Protection for weights and measures inspection services. The contract is renewable each July 1st.

State law requires that our agency charges municipalities fees sufficient to cover the cost of services rendered. After reviewing the changes in devices and businesses in your village, we have determined that an increase in the number of contract days is warranted. You will be charged for 14 days, for FY17 (July 1, 2016 through June 30, 2017), at \$400 per day. Upon meeting your approval, please sign and return the enclosed contract by May 1, 2016 to:

Holly Wing
WDATCP
PO Box 8911
Madison, WI 53708-8911

A completed copy of the contract will be returned to you for your records, and you will be billed for this service in April 2017.

If you have questions or comments, please call Holly Wing at 608-224-4952.

Sincerely,

Rachelle J. Miller
Chief, Field Operations Section
Bureau of Weights and Measures

Enclosure

RJM:hw

Agriculture generates \$88 billion for Wisconsin

2811 Agriculture Drive • PO Box 8911 • Madison, WI 53708-8911 • Wisconsin.gov

An equal opportunity employer

MEMORANDUM OF AGREEMENT WEIGHTS AND MEASURES INSPECTION

THIS AGREEMENT entered into by and between the STATE OF WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION, hereinafter referred to as the Department, and the MUNICIPALITY OF PLEASANT PRAIRIE, hereinafter referred to as the Municipality, WITNESSETH:

Pursuant to Sec. 98.04(2), Wis. Stats., the Department agrees to furnish the services and perform the duties of sealers of weights and measures as required in Sec. 98.04(1), Wis. Stats., in the Municipality. The Department further agrees to report to the Municipality at least annually on the extent and nature of the services performed. It is understood and agreed that the Municipality shall not be required to maintain a department of weights and measures or appoint sealers of weights and measures as long as this agreement is in effect.

Pursuant to Sections 66.0301 and 98.04(2), Wis. Stats., the Municipality agrees to pay to the Department for such services fees sufficient to cover the cost of such services annually on a fiscal year basis from July 1 to June 30, and to be paid not later than May 1 of the fiscal year of this agreement. Payment for services performed by the Department for less than any contract payment period shall be prorated accordingly.

This agreement shall be self-renewing for succeeding fiscal year periods except that the sum to be paid to the Department for services rendered shall be subject to renegotiations for each succeeding contract period on basis of cost. This agreement may be terminated at the end of any fiscal year by either party by giving notice in writing to the other party at least sixty days prior to July 1. Annual fees payable to the Department shall be in the amount of **\$5,600.00**, except as otherwise agreed upon for succeeding contract periods.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed the **1st day of July, 2016.**

WISCONSIN DEPARTMENT OF
AGRICULTURE, TRADE AND CONSUMER
PROTECTION

By _____
Signature Date

Administrator
Division of Trade & Consumer Protection
(608) 224-4929

Village of
MUNICIPALITY OF Pleasant Prairie

By _____
Signature Date

Village Administrator 262-925-6721
Title Telephone Number

ORDINANCE NO. 16-11

**ORDINANCE TO REPEAL AND RECREATE
CHAPTER 405 OF THE MUNICIPAL CODE OF THE
VILLAGE OF PLEASANT PRAIRIE,
KENOSHA COUNTY, WISCONSIN
RELATING TO DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS**

BE IT ORDAINED AND ESTABLISHED by the Board of Trustees of the Village of Pleasant Prairie, Kenosha County, Wisconsin that Section 405 of the Municipal Code is repealed and recreated to read as follows:

Statutory authority.

- A. This chapter is adopted by the Village of Pleasant Prairie under the authority granted by the Wisconsin Statutes, including without limitation, § 61.34, 61.345, 61.36 and 61.39, Wis. Stats.

Purpose and intent.

- A. The Purpose of this Chapter is to establish uniform standards for design and construction within the Village of Pleasant Prairie. These standards will promote consistent design and construction practices and safeguard the interests of the Village of Pleasant Prairie by ensuring that all public and private improvements are designed and constructed in conformance with sound engineering practices and accepted standards.

Adoption – Design Standards and Construction Specifications.

- A. This ordinance hereby adopts and incorporates the Design Standards and Construction Specifications for the Village of Pleasant Prairie, and any amendments that may be made by the Village Board from time to time, for all public and private improvements.

Jurisdiction; applicability.

- A. This ordinance applies to design and construction of public and private improvements, land development, and grading and filling activities within the Village of Pleasant Prairie corporate limits.
- B. The requirements of this ordinance are not exclusive. Other public agencies may have review and permitting jurisdiction, including but not limited to the Wisconsin Department of Natural Resources, United States Army Corps of Engineers, Wisconsin Department of Transportation and Kenosha County. This ordinance does not substitute for the requirements of other public agencies having jurisdiction.

Approvals.

- A. No improvements such as land grading, land filling, storm water drainage facilities, sanitary sewer, water mains, roadway, paving, or other infrastructure shall be

constructed until plans are formally approved in writing by the Village and any other agencies having jurisdiction.

Enforcement; violations and penalties.

- A. The following methods of enforcement in any combination thereof are authorized against any landowner or responsible party that is found to be in violation of any provision of this ordinance.
- 1) Stop Work Order. The Village may issue a stop-work order if the work being done does not comply with Village standards, is not being done correctly, does not have required approvals or permits from the Village or other agencies having jurisdiction, or is deemed unsafe to the public.
 - 2) Compliance Order. The Village shall notify the owner in writing of any non-complying activity. The compliance order shall describe the nature of the violation, remedial actions needed, a schedule of remedial action, and additional enforcement action that may be taken.
 - 3) Penalty. Any person violating any of the provisions of this chapter is subject penalties pursuant to § 1-4 of the Village Code.
 - 4) If the violations are likely to result in damage to private properties, public facilities, waters of the state or other waterways in the Village, the Village may take emergency actions necessary to prevent such damage.
 - 5) The owner or responsible party is responsible for any costs incurred by the Village to bring the violation into compliance with any compliance order. The Village shall mail an invoice for any such work to the owner or responsible party. All invoices shall be paid within 30-days. For invoices not paid within 30-days, there is a penalty of 1.5% per month due on the unpaid invoice balance, along with an additional ten-percent penalty if the outstanding invoice, interest, and penalty are placed on the tax roll (a lien against the property). The right of the Village to assess a lien against the property shall be one of the remedies available to the Village but shall not be the exclusive remedy. The Village may also sue for a money judgment for any invoices which are past due.
 - 6) The Village may seek enforcement of violations of this ordinance through a court of equity located in Kenosha County.

Interpretations.

- A. The provisions of this ordinance are considered minimum requirements. Where conditions imposed by this ordinance differ from comparable conditions imposed by any other ordinance, law, resolution, rule, or regulation of any kind, the regulations that are more restrictive or that impose higher standards or requirements shall govern. The Village

reserves the right to interpret and make determinations with regard to rules and regulations.

Editions and Addendums.

- A. Reference to the current Design Standards and Construction Specifications shall be per current year edition, with first edition year, hereby adopted as 2016.
- B. The Village Board may consider amendments, as issued per addendum, during the year for the current year edition. Addendum(s) shall be made by resolution that includes a description of the proposed amendments.
- C. Each current year edition shall be updated to incorporate the previous year addendum(s).

Appeals.

- A. Any appeal to this chapter shall be pursuant to Chapter 18, Article V, Zoning Board of Appeals, of this code.

Severability.

If any section, clause, provision or portion of this Chapter is judged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the chapter shall remain in force and not be affected by such judgment.

Passed and adopted this _____ day of _____, 2016.

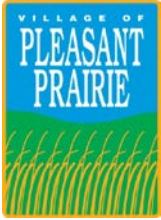
VILLAGE OF PLEASANT PRAIRIE

John P. Steinbrink, President

ATTEST:

Jane M. Romanowski, Clerk

Posted:_____



VILLAGE OF PLEASANT PRAIRIE



CHAPTER 405

DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS

2016 EDITION

DRAFT (3/21/16)

**ENGINEERING DESIGN AND CONSTRUCTION SPECIFICATIONS
TABLE OF CONTENTS**

CHAPTER 405 – DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS

SECTION 1 – ADMINISTRATIVE

1.0 – Administrative

SECTION 2 – DESIGN STANDARDS AND MATTERS

2.0 – Engineering Plan Standards

2.1 – Sanitary Sewer System

2.2 – Storm Sewers and Storm Water Management

2.3 – Water Main

2.4 – Roads

2.5 – Grading and Erosion Control Plan

2.6 – Construction and Specification Manual

2.7 – Residential Lot Plat of Survey(s) and Grading Certification

SECTION 3– CONSTRUCTION MATTERS

3.0 – Preconstruction Conference and Construction Progress Meetings

3.1 - Construction Inspection Services and Contract Administration

3.2 – Subdivision Construction

SECTION 4 – RECORD DRAWINGS AND AS-BUILT REQUIREMENTS

4.0 – Record Drawings and As-built Data (Commercial / Industrial / Private Improvements)

4.1 – Record Drawings Public Improvements and Private Residential Developments

4.2 – GIS Data for Public Improvements and Private Residential Developments

SECTION 5 – VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS

VS-0100 – General Terms and Conditions

VS-0200 – Sanitary Sewer

VS-0300 – Storm Sewer

VS-0400 – Water Main

VS-0500 – Roadway and Sidewalk

VS-0600 – Tracer Wire

VS-0601 – Utility Trench Backfill

VS-0602 – Site Restoration and Surface Replacement

VS-0603 – Manhole and Valve Adjustments (Existing Utilities)

VS-0700 – Street Trees

VS-0800 – Street Lights

SECTION 6 – VILLAGE STANDARD DETAILS

SECTION 1.0 ADMINISTRATIVE

1. Development and Village Departments

Administration Department: The Village's Administration Department is responsible for the allocation of Village resources for development and construction activities, the consistent application of public policy as described in Village Ordinances and evaluating the fiscal impact of development and construction on the Village's general fund, capital fund and enterprise budgets.

Community Development Department: The Village's Community Development Department is the leading department for site planning, zoning, land development, and land development approvals. The Developer and design engineer shall initiate development projects with the Community Development Department. All development plans are submitted to Community Development, who in turn, routes plans and submittals to all other Village departments for review. Community Development coordinates all aspects of the proposed development from project initiation to final plan approval.

Engineering Department: The Engineering Department is the leading department for the establishment of civil engineering design standards and construction specifications and for the review and approval of project civil engineering plans.

Public Works Department: The Public Works Department is the leading department for construction management, inspection of public infrastructure, and monitoring public improvement construction compliance with Village standards.

Building and Inspection Department: The Building and Inspection Department is the leading department for the review and inspections associated with buildings, residential homes, and private infrastructure per State and local building and mechanical codes.

Fire and Rescue Department: The Fire and Rescue Department is the leading department for the review and inspection of all fire safety aspects of development.

2. Approvals

Plans may require approvals from one or several Village departments depending on the project. Plans are approved when:

- A. Written approval is provided from each Department having review or approval authority for the specified project.
- B. Written approval and/or permits are obtained from other agencies having jurisdiction for the specified project.

Any conditions contained in an approval or permit shall be fulfilled to the satisfaction of the approver.

3. Civil Plan Revisions

After the plans are approved in writing by the Village, any deviation shall require the notification and approval of the Village. The Developer shall submit the requested changes to the Village with a letter of explanation of the revision.

Any revisions that occur because of field construction conditions must be reported to the Village by the design engineer, developer, or engineering inspector immediately after they are discovered. Should the Village consider the required changes to be significant or questionable in nature, the Village shall issue a stop work order until revised drawings are submitted and approved by the Village. If the Village considers the changes to be insignificant in nature, work may proceed under the verbal authorization of the Village pending written documentation of the change.

4. Village Acceptance of Improvements and Warranty

Preliminary Acceptance

Following substantial completion of public and private improvements and other requirements as may be specified in the Development Agreement with the Village of Pleasant Prairie, the design engineer, developer, or contractor shall initiate preliminary acceptance of those improvements by notifying the Village. Preliminary Acceptance is a conditional acceptance of the improvements by the Village which coincides with the start of the warranty period. The notification must be in writing. All subject improvements should be in an approvable state with no or only minor punch list items remaining.

The contractor who installed the specified improvements shall provide a written certification that the work was constructed in accordance with the Village approved plans and specifications. The written certification shall state the specific improvement (s) or improvement(s) installed.

The inspector or firm inspecting the work shall provide written certification that the specified improvement(s) was observed to be constructed in accordance with approved plans and specifications, all significant construction punch list items have been completed, and provide a recommendation of acceptance to the Village.

The Village will conduct an inspection of the work and determine if the contractor's and developer's obligations have been fulfilled for preliminary acceptance or if any items or deficiencies need to be addressed prior to Village acceptance. The Village will provide an acceptance punch list including items or deficiencies that need to be completed prior to preliminary acceptance and items to be completed prior to final acceptance by the Village. Upon the punch list items being completed, the Village will recommend Preliminary Acceptance to the Village Board. Preliminary Acceptance will initiate the start of the one year (1) warranty period, unless otherwise specified in the Developer's Agreement.

Warranty Period

Warranty and correction period length and requirements for public and private improvements shall be specified within the Development Agreement, but in no case shall be less than 2-years for street trees and 1-year for all other items from the date of Preliminary Acceptance.

Final Acceptance

At or near the warranty period expiration date, the design engineer, developer, or contractor shall initiate Final Acceptance of the improvements by notifying the Village. The notification must be made in writing and all preliminary acceptance punch list items completed.

The Village shall initiate the final review and inspection of the improvements and provide a list of items, deficiencies or corrections that need to be completed prior to final acceptance. Upon completion, the Village will recommend Final Acceptance to the Village Board.

5. Exceptions and Variations

In cases where the design engineer can demonstrate, in writing, with engineering rationale and data that a provision of these regulations, if strictly adhered to, would cause unnecessary hardship because of unique site conditions and that a departure may be made without destroying the intent of such provisions, the Village may approve a variation or modification of the required standard or regulation.

6. Definition of Terms and Abbreviations

AASHTO: Refers to all the publications of the American Association of State Highway Transportation Officials, and specifically, *A Policy on Geometric Design of Highways and Streets*, current addition.

ACOE: United States Army Corps of Engineers.

ASTM: American Society for Testing and Materials.

AWWA: American Water Works Association.

CONTRACTOR: An individual, company, firm, or other party or organization who contracts to construct all or a portion of the work.

DESIGN ENGINEER or ENGINEER OF RECORD: A qualified professional engineer registered in the State of Wisconsin responsible for the design and preparation of contract documents.

DEVELOPER: Any person, firm, corporation, agent, partnership, or entity that seeks to improve land in accordance with the Village's development regulations.

DEVELOPMENT: A man-made change to improved or unimproved real estate.

EJCDC: Engineers Joint Contract Document Committee.

FDM: Refers to the Wisconsin Department of Transportation *Facilities Development Manual*, current edition.

GIS: Geographical Information System.

HMA: Hot mixed Asphalt.

KWU: Kenosha Water Utility.

NGVD 29: National Geodetic Vertical Datum of 1929.

NAVD 88: North American Vertical Datum of 1988.

NAD27: North American Datum of 1927.

PCC: Portland Cement Concrete.

PC: Refers to “Point of Curvature” for horizontal curves.

PT: Refers to “Point of Tangency” for horizontal curves.

PLANS: The approved plans, profiles, typical cross sections, working drawings, supplemental drawings, and specifications that show the location, character, dimensions, and details of the work to be done.

PRIVATE IMPROVEMENT: Private sewer systems, water systems, storm systems, roads, sidewalks, street lighting, street trees, or other infrastructure that is owned and maintained by the landowner, an association, or other private entity.

PUBLIC IMPROVEMENT: Public sewer systems, water systems, storm systems, roads, parkways, sidewalks, street lighting, street trees, and all other infrastructure will be owned and maintained by the Village of Pleasant Prairie or other public entity.

PUNCH LIST: A list of deficiencies requiring corrective action before final payment or acceptance of the project.

SEWRPC: Southeastern Wisconsin Regional Planning Commission

SPS: Refers to the Wisconsin Department of Safety and Professional Services.

STANDARD SPECIFICATIONS: Refers to the *Standard Specifications for Sewer and Water Construction in Wisconsin*, current edition and its revisions, prepared by a committee of municipal engineers, consulting engineers, suppliers, and contractors for the purpose of suggesting standards for the design and construction of sanitary sewer, storm sewer, and water main.

STATE SPECIFICATIONS: Refers to the *Standard Specifications for Highway and Structure Construction in Wisconsin, Department of Transportation*, current edition and its supplements.

SUBSTANTIAL COMPLETION: Substantial completion is defined as such time improvements are completed to Village Standards, are safe, ready for use, have been and passed inspections and testing, and all Village requirements have been completed, except for what the Village may determine as minor punch list items. Substantial Completion shall be determined by the Village using their best judgment.

USGS: United States Geological Survey.

VILLAGE OF PLEASANT PRAIRIE: The Village of Pleasant Prairie, Wisconsin, and where appropriate, its Village Board, commissions, committee, and authorized officials.

VILLAGE: Authorized officials of the Village of Pleasant Prairie to administer and enforce the provisions of these design standards and construction specifications. Authorized officials include the Village Engineer, Village Construction Engineer, Village Director of Public Works, Community Development Director, or their designee(s).

VILLAGE ENGINEER: A professional engineer, registered in the State of Wisconsin, who has been appointed as the Village Engineer, or the Village Engineer's authorized agent.

VILLAGE CONSTRUCTION ENGINEER: A professional engineer who has been appointed as the Village Construction Engineer or the Village Construction Engineer's authorized agent.

DIRECTOR OF PUBLIC WORKS: A professional engineer who has been appointed as the Village Director of Public Works.

VILLAGE SPECIFICATIONS: Specifications of the Village of Pleasant Prairie, latest edition.

VPC: Refers to beginning of vertical curve.

VPI: Refers to the vertex of vertical curve (the intersection of the two tangents).

VPT: Refers to end of vertical curve.

WDNR: Wisconsin Department of Natural Resources.

WDOT: Wisconsin Department of Transportation.

END OF SECTION

SECTION 2.0 ENGINEERING PLAN STANDARDS

1. Introduction

The Village requires uniform plans for ease of record keeping, review, and understanding. Plans standards and design guidelines as established in this chapter are Village standard minimum requirements.

2. General

- A. Plan scales shall be standard scales (1"=100', 60', 50', 40', 20', 10'). Plan scales shall be large enough to be legible and easily reviewable. Typical plan scales shall be 1"=40', horizontal and 1"=4' or 5' vertical, unless otherwise approved by the Village.
- B. Plans shall be based on USGS vertical datum (NGVD29 or NAVD 88) and the State Plane Coordinate System, south zone (NAD27).
- C. All proposed improvements and construction materials shall be indicated in the plans.
- D. Plans must be bound and submitted in a neat and organized manner.
- E. Reports including storm water management plan(s) and construction specifications manual(s) shall be comb bound, dated, contain a table of contents, and be sealed by a Wisconsin registered licensed professional engineer.
- F. Village of Pleasant Prairie shall be provided electronic PDF copies of all final plans and reports. PDF's shall be created directly from CADD export files whenever possible.

3. Plans – General

- A. Plan Content. Construction plans shall generally include the following, as may be applicable:
 - 1) Title cover sheet.
 - 2) Detail sheets.
 - 3) Grading / erosion control plans.
 - 4) Sanitary sewer and water main plans.
 - 5) Roadway and storm sewer plans.
 - 6) Roadway cross-sections.

Other civil plans, development plans, or planning reports, which may be submitted separately include:

- 7) Landscaping / street tree plan.
- 8) Street lighting plan.
- 9) Street sign plan.
- 10) Soils report.
- 11) Storm water management plan.
- 12) Preliminary and final plat(s).
- 13) Wetland and Floodplain plats.
- 14) Primary Environmental Corridor Staking / Delineations.

B. Title Cover Sheet. All plans shall contain a title cover sheet. The title cover sheet for civil plans shall include the following information:

- 1) The official project title and location map.
- 2) Name of property owner, developer, and contact information of owner or owner's representative.
- 3) Project number used by the firm preparing the plans.
- 4) Identification of horizontal and vertical control and coordinate system used with a listing of project bench marks.
- 5) A legend of symbols and index of sheets.
- 6) Date of preparation and applicable revision date(s), including month, day, and year.
- 7) Government Agency and Utility Contacts.
- 8) Stamp and signature of the Wisconsin licensed professional engineer under which the plans were prepared.
- 9) A note warning that Digger's Hotline must be contacted to locate underground utilities prior to the start of construction.
- 10) If the project is required to have a preconstruction conference by the Village the following note shall be provided. "Prior to construction, a pre-construction conference must be held at the Village offices. The preconstruction conference shall be scheduled and moderated by the designing Engineer of Record".

C. Title Block. Each plan sheet shall include a title block with the following information:

- 1) Project name.
- 2) Type of plan. (i.e. grading /erosion control, sanitary sewer / water main, etc.)
- 3) Designed by.
- 4) Checked by.
- 5) Revision date (month, day, and year).

4. Plan Items – General

A. In addition to specific design and plan item requirements for utilities, grading, and roadway plans, the following items shall be standard to all plans :

- 1) North arrow.
- 2) Plan scale.
- 3) Abutting Roadway and Railway Right-of-way lines and widths.
- 4) Property lines.
- 5) Project boundary.
- 6) Lot number or address identification of properties within or immediately adjacent to project area.
- 7) Existing utilities and structures including but not limited to the following:
 - a. Storm sewer, sanitary sewer, and water system facilities.
 - b. Electric, gas, phone, cable, or other service provider utilities.
 - c. Street pavement edges and pavement type, curbs, sidewalk, bike lanes, alleys, driveways, or other surface types.
 - d. Existing mail boxes, signs, fences, light poles, landscaping, trees, buildings, or other surface features within or immediately adjacent to the project area.
- 8) Roadway names.
- 9) Existing and proposed easement locations, type, and width.
- 10) Environmental features (wetlands, waterways, floodplain, conservancy areas etc.) and any associated setbacks.

11) Location and identification of benchmarks.

12) Existing parks.

END OF SECTION

SECTION 2.1 SANITARY SEWER SYSTEM

1. Introduction

All proposed developments, subdivisions, and buildings must have a properly designed and constructed sanitary sewer collection system. The system shall provide an adequate means of delivering sewage collected from the development to an existing sanitary sewer system.

2. Compliance with the following;

- A. Standard Specifications for Sewer & Water Construction in Wisconsin.
- B. Village Standard Construction Specifications.
- C. Chapter NR 108 – Requirements for Plans and Specifications Submittal for Reviewable Projects and Operations of Community Water Systems, Sewerage Systems, and Industrial Wastewater Facilities.
- D. Chapter NR 110 – Sewerage Systems.
- E. SPS 382-387 Plumbing Code.
- F. Chapter 395 of the Village Municipal Code – Land Development and Development Control.
- G. Chapter 420 of the Village Municipal Code – Zoning Ordinance.
- H. Chapter 381 of the Village Municipal Code – Construction Site Maintenance and Erosion Control.

3. Public Sewers – General

- A. Public sewers are owned and maintained by the Village of Pleasant Prairie. Wastewater flows are treated by the City of Kenosha Water / Wastewater Utility (KWWU).
- B. Public sewers shall be constructed in accordance with the Village Standard Construction Specifications.
- C. Approvals and permits for public sewers shall be obtained in the following order:

First: Village of Pleasant Prairie; Second: City of Kenosha Water / Wastewater Utility; Third: Southeastern Wisconsin Regional Planning Commission (SEWRPC); and fourth: The Wisconsin Department of Natural Resources (WDNR).

1) The Village (not the Developer) shall submit plans to the City of Kenosha Water / Wastewater Utility after Village plan approval.

- 2) The Developer shall submit plans to SEWRPC after approval from the Village and KWWU.
- 3) The Developer shall submit plans and an approval letter(s) to WDNR after approval from the Village, KWWU and SEWRPC.
- 4) Approvals from SEWRPC and WDNR shall be provided to the Village.

4. Private Sewers- General

- A. Private sewers shall be approved by the Village prior to State submittal. Village approved plans and state approved plans shall not differ.
- B. Private sewers shall be constructed in accordance with the Village Standard Construction Specifications. Any deviations shall be approved by the Village, prior to construction.
- C. Private Sanitary Sewer Access and Maintenance Easement. The owner shall dedicate an access and maintenance easement to the Village for the private sewer facilities. This easement shall be in the form of a Dedicated Private Sanitary Sewer Access and Maintenance Easement provided on a certified survey map, final plat or other recordable document.
- D. Maintenance Agreement. A Village approved maintenance agreement is required for the maintenance of all private sewer facilities. The maintenance agreement shall be based on a maintenance plan developed for the life of the sewer. The agreement provisions shall be tied to the Dedicated Access and Maintenance Easement and shall include the following:
 - 1) Legal description of the Private Sanitary Sewer Access and Maintenance Easement.
 - 2) Identification of the private sewer facilities.
 - 3) Identification of the owner of the sewer facilities.
 - 4) Provisions and of maintenance requirements for the sewer facilities.
 - 5) Provisions allowing the Village access to the property to perform inspections or maintenance that are not being properly performed by the owner.
 - 6) Agreement that the owner shall be responsible for all costs associated with the construction and maintenance of the sewer facilities.

5. Preparation of Plans

- A. Plans must be prepared, stamped, and signed by a qualified professional engineer registered in the State of Wisconsin.

6. General Design Requirements

- A. Service Area and Design Capacity.

- 1) The sewer design shall accommodate the flows of the development and the ultimate service area. As part of the design, an ultimate service area map shall be provided with details of topography, future sewer sizes, elevations, sewer depths, and calculated system design flows and system capacity. The basis of design for all projects shall accompany the submitted engineering plans.

B. Public Sewer Location.

- 1) Sewer mains shall be extended to the far property boundaries for future connection.
- 2) Sewer alignments along new public roadways shall follow the centerline of the roadway. Additional manholes shall be provided in curvilinear roads to closely follow the centerline.
- 3) Public sewers shall be located in a public right-of-way or centered within a permanent dedicated Sanitary Sewer Access and Maintenance Easement.
- 4) Sewer alignments along existing roads or in easements shall be approved on a case-by-case basis. Alignments must be approved prior to completing / submitting construction plans to the Village.
- 5) Sanitary Sewer, Access and Maintenance Easements shall be a minimum of 20-feet wide. If the sanitary sewer is located within the same easement as another utility or the sewer depth is greater than 15-feet, the easement width shall be increased at the direction of the Village.
- 6) For sanitary sewers within permanent easements, a paved / gravel access path may be required at the direction of the Village to allow utility vehicles to access and maintain the public sewer. The access path shall be designed to accommodate the width and weight of utility vehicles.

C. Sewers.

- 1) Sewer depths for new residential areas must accommodate gravity basement service.
- 2) Single family residential sanitary laterals cannot be directly connected to manholes and shall be 4-inches in diameter. Laterals for multi-family, commercial, business, or industrial lots must be sized based upon anticipated wastewater flows and may not be connected to manholes unless otherwise approved by the Village.
- 3) Risers shall be provided for all laterals over 14-feet in depth, in accordance with the Village's standard details.
- 4) Sewer lateral grade shall be at a typical 2.08% unless otherwise approved by the Village. Minimum lateral grade is 1.04%.
- 5) All laterals exceeding 100-feet in length shall have cleanouts installed on them. Clean out locations shall be noted on the plans, if applicable.

- 6) Outside drop manholes may only be used where the proposed drop exceeds 3.0 feet. Inside drops are not allowed on new manholes but may be installed on existing manholes if approved by the Village and WDNR.
- 7) Inside “splash” drops shall be no greater than 6-inches to avoid sewage waterfalls in manholes.
- 8) Manholes shall have a typical 0.1 foot drop in invert elevations unless otherwise approved by the Village Engineer where adequate grade is not available.
- 9) New sewer connections to existing manholes shall be cored.
- 10) Sampling manholes are required for all commercial, industrial, or other developments, as may be determined by the Village, per Village Specifications. Sampling manholes shall be located to allow easy access for utility crews and shall be within pavement areas but not in parking stalls. No alignment changes are allowed at a sampling manhole.
- 11) Sewers crossing existing Village roads shall be backfilled using slurry backfill and restored per Village Specifications.
- 12) A temporary plug must be installed in the downstream manhole during construction to prevent sediment / debris from entering the downstream sewer. All plugs must be removed prior to the Village acceptance of the new service. Plans shall contain a note stating this requirement, if applicable.
- 13) Sanitary sewers shall be designed with a minimum of 6-feet of cover at all locations unless otherwise approved by the Village.
- 14) All existing sanitary lateral(s) to a lot which are not used by a development shall be abandoned and capped at the main, as part of the development requirements, unless otherwise determined by the Village.

1) Plan Items

- A. The following plan elements shall be provided in the construction plans:
 - 1) Master sanitary sewer system overview sheet.
 - 2) Plan view of all sewers.
 - 3) Identification of public vs. private facilities must be indicated on the plan.
 - 4) Profile of existing and proposed public sewers.
 - 5) Invert and rim elevations of all sewer manholes.
 - 6) Sewer diameter, distance, and percent grade between manholes.
 - 7) New sewer material and class of pipe.

- 8) Material and sizes of any existing sanitary sewer to be tied into.
- 9) Lateral locations and invert elevation(s) at the right-of-way. Locations and length of any riser.
- 10) Proposed public right-of-ways and/or easements shall be shown in plan view. Copies of complete easement documents shall be provided, if applicable.
- 11) Limits of gravel, spoil, and/or slurry backfill.
- 12) Separation distances between sanitary sewer and other utilities.
- 13) Manhole and riser detail(s).

END OF SECTION

SECTION 2.2

STORM SEWERS AND STORM WATER MANAGEMENT

1. Introduction

All proposed developments, subdivisions, and buildings must have a properly designed and constructed storm sewer conveyance and management system. Storm sewer facilities may be publicly or privately owned as deemed appropriate by the Village.

2. Compliance with the following;

- A. Standard Specifications for Sewer & Water Construction in Wisconsin.
- B. Village Standard Construction Specifications.
- C. Chapter 298 of the Village Municipal Code – Storm Water Management and Storm Water Drainage Facilities.
- D. Chapter 297 of the Village Municipal Code – Storm Sewers. (Re: Illicit Discharges),
- E. Chapter 300 of the Village Municipal Code – Storm Water Storage Facilities. (Re: Illegal fill or alterations of storm water ponds).
- F. Chapter NR 151 - Runoff Management.
- G. Wisconsin Department of Natural Resources Storm Water Post-construction Technical Standards.
- H. SPS Chapters 382-387 Plumbing Code.
- I. Chapter 395 of the Village Municipal Code – Land Development and Development Control.
- J. Chapter 420 of the Village Municipal Code – Zoning Ordinance.

3. Public Storm Water Facilities – General

- A. Village public storm water facilities shall be constructed and meet the Village Standard Construction Specifications.

4. Private Storm Water Facilities – General

- A. Private storm sewers in commercial or industrial developments shall meet the requirements of the Wisconsin Administrative Code (SPS 382-387)
- B. Private storm sewers in residential developments shall meet the Village standards and construction specifications for public storm sewer infrastructure.

- C. Private Storm Water Drainage Access and Maintenance Easement. The owner shall dedicate an access and maintenance easement to the Village for the private storm water facilities. This easement shall be in the form of a Dedicated Private Storm Water Drainage Access and Maintenance Easement provided on a certified survey map, final plat, or other recordable document.
- D. Maintenance Agreement. A Village approved maintenance agreement is required for the maintenance of all private storm water facilities. The maintenance agreement shall be based on a maintenance plan developed for the life of the facilities. The agreement provisions shall be tied to the Dedicated Access and Maintenance Easement and shall include the following:
 - 1) Legal description of the Private Storm Water Drainage Access and Maintenance Easement.
 - 2) Identification of the private storm water facilities.
 - 3) Identification of the owner of the storm water facilities.
 - 4) Provisions, requirements, and timelines for the operation, inspection, and maintenance of the storm water facilities by the owner.
 - 5) Provisions allowing the Village access to the property to perform inspections or maintenance that are not being properly performed by the owner.
 - 6) Agreement that the owner shall be responsible for all costs associated with the construction, operation, and maintenance of the storm water facilities.

5. Preparation of Plans

- A. Plans must be prepared, stamped, and signed by a qualified professional engineer registered in the State of Wisconsin.

6. Storm Water Management

- A. Storm water management is regulated by Chapter 298 of the Village Municipal Code. The design engineer shall reference this Chapter for design criteria and information pertaining to the following:
 - 1) Peak runoff discharge performance standards.
 - 2) Runoff quality performance standards.
 - 3) Infiltration standards.
 - 4) Protective areas.
 - 5) Detention and retention facilities.
 - 6) Storm water management plan.Approvals, agreements, easements, permits and conditions.
- B. Design of post construction storm water facilities shall follow and meet the applicable WDNR Storm Water Post-Construction Technical Standards.

- C. New residential ponds shall be designed with aerator(s) or pond fountain(s), unless otherwise determined by the Village. Aerators / fountains shall meet the requirements set forth in the WDNR technical standard – 1001 and be designed for the pond size.
- D. Wet ponds shall be designed with a safety shelf meeting WDNR technical standard requirements.
- E. Storm water management pond shall fully contain the runoff from the tributary watershed area during the 100-year, 24-hour, rainfall under post-developed conditions. Hydrology calculations shall use Atlas 14 precipitation depths, and NRCS MSE3 precipitation distribution.
- F. Storm water management ponds shall have a minimum 1-foot freeboard from the calculated 100-year high water elevation to the top of pond embankment and shall have an approved designed emergency overflow spillway.
- G. Development design shall provide designated 100-year overland flood routes that convey storm water drainage to the designed storm water management facility. Flood routes shall be in designated Flowage Easements, Right-of-Ways, or Storm Water Drainage Access and Maintenance Easements.

7. Storm Water Management Plan

- A. The storm water management plan shall be provided in an electronic pdf including the following:

Narrative

- 1) Title sheet with official project name, date of preparation, and applicable revision dates. The title sheet must be stamped / sealed by a registered Wisconsin professional engineer.
- 2) Table of contents.
- 3) Narrative of required storm water performance requirements for the development.
- 4) Description of the project site location and existing conditions including land use, topography, existing drainage patterns (including offsite contributory drainage), existing downstream structures, points of discharge, identification of navigable streams, wetland(s), floodplain(s), and other relevant features effecting storm water drainage of the development.
- 5) Description of site soil type(s) and identification of hydrologic soil classification(s) used (Type A, B, C, D).
- 6) Description of the proposed development and post-construction site conditions including storm water drainage facilities being used to meet the performance standards, drainage patterns, points of discharge, protective areas, and other relevant features effecting storm water drainage of the development including any relevant impacts to upstream contributory or downstream receiving areas.

- 7) Description of the analytical procedures used to quantify storm water runoff rates, volumes, and water quality performance standards.
- 8) Summary of the pre-developed and post-developed hydrologic and hydraulic parameters used in the evaluation including runoff curve number(s), time of concentration(s), drainage basin and sub-basin delineations, including acreages.
- 9) Summary of the project site's pre-developed and post-developed peak storm water runoff rates for the 1-year, 2-year, 10-year, and 100-year frequency, 24-hour duration design rainstorm event(s).
- 10) Summary of the post-developed storm water quality analysis results and comparison with the performance requirements.
- 11) Summary of the post-developed storm water infiltration analysis and comparison with the performance requirements.

Appendices

- 12) Pre-developed and post-developed drainage basin map with topographic contours, time of concentration path(s), basin identification numbers, and acreages.
- 13) Hydrologic computer model printout with page numbers including a model schematic, table of contents, model input summary sheets, time of concentration calculations, model output summary sheets. Each model run should be separated by a divider sheet with an description heading.
- 14) Water quality computer model printout including input parameters and output results.
- 15) Infiltration design worksheets, if applicable.

8. Storm Sewer General Design Requirements

A. Public Storm sewers Location

- 1) Storm sewer alignments along new public roadways shall be on the west or south side of the roadway. Storm sewers should be aligned parallel to the sanitary sewer and generally 10-feet away from but no closer than 8-feet from the sanitary sewer within the limits of the roadway pavement. Appropriate manholes shall be provided to maintain the alignment on curvilinear roads to keep the storm sewer under the pavement.
- 2) Storm sewer alignments along existing roads or in easements shall be approved on a case-by-case basis. Alignments must be approved prior to completing / submitting construction plans.
- 3) Public storm sewers shall be located in a public right-of-way or centered within a permanent Storm Sewer Access and Maintenance Easement. Storm Sewer Access and Maintenance Easements shall be a minimum of 20-feet wide. The easement width may be increased by the Village due to sewer size, depth, other utilities located within the same easement, or other site specific factors.

B. Storm Sewers

- 1) Unless otherwise specified by the Village, storm sewers shall be designed for a 10-year reoccurrence frequency storm event as defined by the Southeastern Wisconsin Regional Planning Commission (SEWRPC).
- 2) Unless otherwise approved by the Village, storm sewer design flow shall be based on the rational method, $Q=CIA$.
- 3) Storm sewer design calculations along with a storm sewer drainage map shall be submitted for review. The drainage map shall include the storm sewer system plan, topographic information, watershed delineations, watershed acreages, time of concentration (T_c) and T_c flow paths, runoff coefficients, and storm structure and watershed identification labels.
- 4) All offsite contributory drainage areas shall be delineated and included in the design calculations and drainage map.
- 5) The design of the drainage system shall not adversely affect adjacent or downstream properties or cause upstream ponding or back-water problems. Design shall accommodate increased runoff created onsite and consider potential for increased runoff from upstream properties, where applicable.
- 6) Minimum public storm sewer pipe diameter is 15-inches for mains except 12-inch diameter mains are permitted for sump outlet storm sewers. Minimum catch basin lead diameter is 12-inches.
- 7) Storm sewer mainline shall be designed with a minimum depth of 4-feet unless otherwise approved by the Village.
- 8) Double inlets shall be provided at sag curves within public roadways.
- 9) All apron endwall(s) shall have a steel grate. (See Village Standard Pipe Grate).
- 10) For parking lots and other large paved areas, a minimum of one catch basin shall be provided for approximately every 20,000 square feet of impervious surface area, or as determined by the Village.

C. Sump Pump Laterals

- 1) Sump pump laterals must be provided for all lots within new subdivisions and multi-family developments.
- 2) All new lots shall have a 4-inch storm lateral extended from a public storm sewer to the lot line, unless otherwise approved by the Village. Laterals may be extended from the storm sewer in the adjacent road (or from the side / rear yard when such storm sewers are available). Storm laterals may also be directly connected to catch basins, if the catch basin is located within the lot frontage.

- 3) On portions of roadways not requiring storm sewer for surface drainage, a minimum 12-inch diameter sump outlet storm sewer shall be extended in the roadway from the end of the downstream storm sewer. The storm sewer shall be constructed the same as the main storm sewers. A manhole shall be provided at the upstream end for access/maintenance.
- 4) New minor land divisions where storm sewers are not available may be required to provide alternative collections systems as determined by the Village.
- 5) Storm sewer lateral grade shall be at a typical 2.08% unless otherwise approved by the Village. Minimum lateral grade is 1.04%.
- 6) All laterals exceeding 100-feet in length shall have cleanouts installed on them. Clean out locations shall be noted on the plans, if applicable.

D. Downspouts and Roof Drainage

- 1) All single family and two family residential dwelling units shall have downspouts discharged to the lawn on the subject property in a manner that directs drainage away from the building to yard swales or downslope areas as designed in the grading plan. Downspouts shall not be interconnected to the private or public storm sewer unless the development is specifically designed and approved by the Village Engineer for such connections.
 - a. Downspout extensions shall not be extended to discharge at the lot line or onto adjacent properties.
- 2) All multifamily residential buildings shall have downspouts interconnected to the storm sewer system or other approved point of discharge as approved by the Village to prevent erosion from roof runoff and minimize problems on paved surfaces. Plans shall clearly show and note downspout drainage provisions.
- 3) All commercial (non-residential) building roof leaders and downspouts shall be interconnected directly to the on-site storm sewer system or other point of discharge as approved by the Village to prevent erosion from roof runoff and minimize problems on paved surfaces. Plans shall clearly show and note downspout drainage provisions.
 - a. Roof drainage from commercial buildings shall have internal plumbing or external downspouts that are located in areas that are not subject to damage or high pedestrian traffic. Plans shall show proposed downspout locations.

E. Open Channels

- 1) The design of open channels shall be reviewed on a case by case basis.
- 2) The design shall prevent excessive velocity flow and erosion.
- 3) Side slopes for open channels and swales shall be a maximum of 4:1.

- 4) Open channels may be required to be located in a storm water drainage access and maintenance easement, at the direction of Village.

9. Plan Items

A. Storm Sewers plan elements shall include the following:

- 1) Master storm sewer system overview sheet.
- 2) Plan view of all storm sewers.
- 3) Identification of public vs. private facilities must be indicated on the plan.
- 4) Profile of public storm sewers.
- 5) Invert and rim elevations of all sewer manholes.
- 6) Sewer diameter, distance, and percent grade between manholes.
- 7) New sewer material and class of pipe.
- 8) Material and size of any existing storm sewer to be tied into.
- 9) Sump lateral locations and invert elevation(s) at the right-of-way.
- 10) Proposed public right-of-ways and/or easements shall be shown in plan view. Copies of complete easement documents shall be provided, if applicable.
- 11) Limits of gravel, spoil, and/or slurry backfill.
- 12) Separation distances between storm sewer and other utilities.
- 13) Location and size of rip-rap
- 14) Details (manhole, catch basin, end section, swale, rip-rap, etc.).

B. Detention / Retention Ponds.

- 1) Grading plan of pond design.
- 2) Normal water elevation and designed 100-year water elevation labeled on plan.
- 3) Pond cross section, including but not limited to:
 - a. Normal, 2-year, and 100-year water elevations.
 - b. Bottom of pond elevation.
 - c. Emergency spillway and elevation.
 - d. Embankment material noted. Show keyway, if applicable.

- e. Pond liner material, thickness, limits, etc.
 - f. Storm sewer discharge pipe / anti-seep collar.
 - g. Grading slopes (i.e. 4:1, 10:1 etc.)
 - h. Label and dimension top of berm width and safety shelf width.
 - i. Limits of topsoil replacement, turf-reinforcement matting etc.
- 4) Details of pond outlet structure, emergency spillway, etc.
 - 5) A soils report shall be provided with boring information at the pond site. Pond design shall take into consideration existing soil types present and groundwater elevation.

END OF SECTION

SECTION 2.3 WATER MAIN

1. Introduction

All proposed developments, subdivisions, and buildings shall include provisions for municipal water service.

2. Other - Compliance with the following:

- A. Standard Specifications for Sewer & Water Construction in Wisconsin.
- B. Village of Pleasant Prairie Standard Construction Specifications.
- C. NR 108 – Requirements for Plans and Specifications Submittal for Reviewable Projects and Operations of Community Water Systems, Sewerage Systems, and Industrial Wastewater Facilities.
- D. NR 811 – Requirements for Operation and Design of Community Water System.
- E. SPS 382-387 Plumbing Code.
- F. NFPA 24 – Requirement for all private fire service water mains, including sprinkler system Chapter 420 lead-ins and combination fire/water mains from public water mains. Chapter 395 LD and LCO.
- G. Chapter 180 – Fire and Rescue Protection.

3. Village Public Water Main – General

- A. Public water main(s) within the Village of Pleasant Prairie are owned and maintained by the Village, unless in an area that is serviced directly by the Kenosha Water Utility. The Village purchases water as a wholesale customer from the Kenosha Water Utility.
- B. Public water mains shall be constructed in accordance with the Village Standard Construction Specifications.
- C. Approvals and permits for public water mains shall be obtained in the following order:

First: Village of Pleasant Prairie; Second: City of Kenosha Water / Wastewater Utility; and third: Wisconsin Department of Natural Resources.

 - 1) The Village (not the Developer) shall submit plans to the City of Kenosha Water / Wastewater Utility after Village plan approval.
 - 2) Plan submittal to the WDNR is to be completed by the developer's engineer after Village and Kenosha Water / Wastewater Utility approval of the plans.

4. Private Water Main – General

- A. Private water mains shall be approved by the Village prior to State submittal. Village approved plans and state approved plans shall not differ.
- B. Private water mains and appurtenances shall meet the Village Standard Construction Specifications. Any deviations shall be approved by the Village, prior to construction.
- C. Access and Maintenance Easement. The owner shall dedicate an access and maintenance easement to the Village for the private water facilities. This easement shall be in the form of a Dedicated Water Main Access and Maintenance Easement provided on a certified survey map, final plat, or other recordable document.
- D. Maintenance Agreement. A Village approved maintenance agreement is required for the maintenance of all private water main facilities. The maintenance agreement shall be based on a maintenance plan developed for the life of the facilities. The agreement provisions shall be tied to the Dedicated Water Main, Access, and Maintenance Easement and shall include the following:
 - 1) Legal description of the water main access and maintenance easement.
 - 2) Identification of the private water facilities.
 - 3) Identification of the owner of the water facilities.
 - 4) Provisions, requirements, and timelines for the operation, inspection, and maintenance of water facilities by the owner.
 - 5) Provisions allowing the Village access to the property to perform inspections or maintenance that are not being properly performed by the owner.
 - 6) Agreement that the owner shall be responsible for all costs associated with the construction and maintenance of the water facilities.

5. Private Fire Service Water Mains and Protection Systems– General

- A. All fire protection / combination mains and protections systems are reviewed and approved by the Village of Pleasant Prairie Fire and Rescue Department and their independent fire safety consultant. The design engineer shall coordinate with the Fire Department and reference Chapter 180 (Fire and Rescue Protection) of the Village Ordinance(s) for all requirements, early in the project design process.
- B. Buildings serviced by a combination municipal water and fire protection main must be sized by a Wisconsin licensed fire protection (sprinkler) contractor. No main is allowed to travel underground, under a building.
- C. Private fire service water mains, including sprinkler system lead-ins and combination fire / water mains shall meet NFPA 24.

6. Preparation of Plans

- A. Plans must be prepared, stamped, and signed by a qualified professional engineer registered in the State of Wisconsin.

- B. Fire protection mains shall be prepared, stamped, and signed by a Wisconsin registered fire-protection contractor.

7. General Design Requirements

A. Water Mains and Laterals.

1. Water mains shall be looped or designed with the intention to loop unless otherwise approved by the Village.
2. Water main alignment along new Village roads shall be located 10-feet east or north of the roadway centerline. Appropriate bends / fittings shall be provided to maintain the alignment on curvilinear roads and keep the water main under the pavement
3. Water main alignment on existing Village roads or in easements shall be approved by the Village on a case by case basis. Alignment must be approved prior to completing / submitting construction plans.
4. Water Main, Access, and Maintenance Easements shall be a minimum of 20-feet wide. If the water main is located within the same easement as another utility or the depth is greater than 8-feet, the easement width shall be increased at the direction of the Village.
5. Water mains shall be extended to the far property boundaries for future connection / extension.
6. Water laterals shall be installed with the b-box located approximately 0.5 to 1.0 foot within the right-of-way line as required by typical road sections or as approved by the Village.
7. Water mains crossing existing roads shall be backfilled with slurry. Roadway pavement must be saw-cut and replaced "in-kind".
8. The Village of Pleasant Prairie Fire and Rescue Department approval must be obtained for all proposed hydrant locations, fire loops, sprinkler lines and combination services/mains.
9. All water mains serving residential development shall be a minimum of 8-inches in diameter and mains serving commercial or industrial development shall be a minimum of 12-inches in diameter.
10. Water mains shall be designed to have a minimum cover depth of 6-feet.
11. Valves shall be provided at all branches within intersections.
12. Valves in residential areas shall be placed at intervals not greater than 800-feet.
13. Valves in commercial or industrial areas shall be placed at intervals not greater than 600-feet.

14. Hydrants in residential areas shall be placed at intersections and at 400-foot intervals (in general). Hydrants in commercial / industrial or other higher protection areas may require additional hydrants as required by the Village.
15. All existing water lateral(s) to a lot which are not used by a development shall be abandoned and capped at the main, as part of the development requirements, unless otherwise determined by the Village.

Plan Items

A. The following plan elements shall be provided in the construction plans:

1. Master water system overview sheet.
2. Grade breaks, bends, fittings, valves, and hydrants shall be labeled on the plans with stations and elevations.
3. Plan and profiles are required for all public water mains.
4. Water main size, distance, and percent grade between grade breaks.
5. Water main material.
6. Lateral locations and invert elevations at the right-of-way.
7. Limits of granular, spoil, and/or slurry backfill.
8. Material and size of existing water main to be connected.
9. Separation distance(s) between water main and sanitary sewer.
10. Proposed public right-of-ways and/or easements shall be shown in plan view. Copies of complete easement documents shall be provided, if applicable.

END OF SECTION

SECTION 2.4 ROADS

1. Introduction

This chapter outlines the minimum plan standards for public and private roadways. Additional roadway design requirements may be required by the Village based on site characteristics, traffic impact analysis studies, neighborhood and regional planning, and local road and traffic conditions.

2. Other – Compliance with the following:

- A. Chapter 395 of the Village Municipal Code – Land Division and Development Control.
- B. Chapter 420 of the Village Municipal Code - Zoning
- C. Village of Pleasant Prairie Standard Construction Specifications.
- D. Wisconsin Department of Transportation Facilities Development Manual (FDM).
- E. Wisconsin Bicycle Facility Design Handbook.
- F. AASHTO Book.

3. Preparation of Plans

- A. Plans must be prepared, stamped, and signed by a qualified professional engineer registered in the State of Wisconsin.

4. Design Requirements

- A. Typical Urban Sections. Village typical sections shall be used for development design. The following typical sections can be found in the Village Standard Construction Specifications Standard Detail Section. These typical sections shall be the minimum design requirements and changed as necessary based on traffic needs and geotechnical recommendations.
 - 1) Residential Minor Street Section.
 - 2) Residential / Commercial Collector Street Section.
 - 3) Industrial Street Section.
 - 4) Residential Boulevard Section.
 - 5) Private Minor Street Section.
 - 6) Residential Cul-De-Sac.
- B. Design for private minor streets shall be further reviewed on a case by case basis to determine required easement widths or other additional design requirements based on the development design.

C. Curb and Gutter

- 1) Curb and gutter shall conform to the Village of Pleasant Prairie Standard Construction Specifications and Details.

D. Underdrains

- 1) On public streets, underdrains shall be installed within 100-feet of all low points and conform to the Village of Pleasant Prairie Standard Construction Specifications, typical sections and Details. Additional underdrains shall be installed if recommended within the geotechnical soils report.

E. Horizontal and Vertical Alignment

- 1) Roadways shall be centered within the street right-of-way.
- 2) Unless necessitated by exceptional topography, and subject to the approval of the Village, the vertical center-line grade of any public street shall not exceed the following:
 - a. Arterial streets: 5%
 - b. Collector streets : 7%
 - c. Minor streets: 8%
- 3) The minimum vertical center-line grade of any public street is 0.50%.
- 4) Horizontal Curves shall meet FDM design requirements.
- 5) A tangent of at least 100-feet shall be introduced between reverse horizontal curves.
- 6) Vertical curves shall meet FDM design requirements.
- 7) All intersection curb radii in residential streets shall have a minimum radius of 25-feet to the back of curb.
- 8) Deceleration / acceleration tapers in conformance with WDOT standards shall be provided at the direction of the Village on existing roads at the intersections of new roads unless the existing road has been reconstructed to its ultimate cross section. The need for by-pass lanes at all new intersections with existing roads will be evaluated by the Village on a case by case basis.

F. Site Distances

- 1) Public and private streets design shall include safe stopping distances. Design shall meet AASHTO and FDM design requirements.

G. Cul-de-Sacs and Dead End Streets

- 1) Permanent cul-de-sacs for residential development shall meet the Village standard cul-de-sac detail geometrics, unless otherwise approved by the Village.

- 2) Permanent cul-de-sac lengths shall not exceed the maximum as set by Chapter 395 of the Land Division Ordinance.
- 3) The temporary termination of a public street that is intended to be extended at a later date shall be accomplished by constructing a temporary cul-de-sac as outlined in Chapter 395 of the Land Division Ordinance and shown in the Village of Pleasant Prairie Standard Construction Specifications details.

H. Sidewalks

- 1) Sidewalks shall meet the standards set in the Village of Pleasant Prairie Standard Construction Specifications.
- 2) Design engineer shall provide proposed spot grades and grading information on the plan regarding the sidewalk design.
- 3) Sidewalks shall be designed with a 1.5% cross slope.

I. Bicycle Facilities

Bicycle facilities shall be in accordance with the applicable section of the Wisconsin Bicycle Facility Design Handbook and the FDM.

J. Traffic Signals

Traffic signal plans meeting WDOT design requirements shall be provided for any proposed signalized intersection.

K. Street Signing

- 1) A street signing plan shall be prepared by and installed by the Developer for all developments, as applicable.
- 2) Street sign posts shall be steel meeting the standards set in the Village of Pleasant Prairie Standard Construction Specifications.

L. Street Lighting

- 1) A street lighting plan and photometric plan shall be prepared by Developer and for all developments, as applicable.
- 2) Refer to Chapter 395-77 of the Village Municipal Code.
- 3) All street lighting shall be decorative for residential developments. Post and luminaire model must be approved of by the Village of Pleasant Prairie. All street lights must conform to the following requirements:
 - a. Pole, luminaire, and exposed accessories must be black.

- b. LED luminaires with a color temperature range of 4,000K to 5,000K.
- c. All wiring shall be installed within PVC conduit.

M. Pavement Markings

- 1) A pavement marking plan shall be prepared by the Developer and submitted to the Village for review and approval, as part of the roadway design.

N. Soils Report

- 1) A geotechnical soils report, including geotechnical recommendations shall be prepared and submitted for all roadway designs and be sealed by a Wisconsin registered licensed professional engineer. Borings shall be performed in 500-foot intervals along the roadway and extend to 5-feet below the proposed roadway subgrade.

5. Plan Items

A. Plan and Profile Sheets.

- 1) Roadway stationing.
- 2) Existing and finished centerline profiles.
- 3) Storm sewers and culvert locations and information.
- 4) Roadway centerline elevations at interval distances no greater than 50-feet (25-feet within vertical curves).
- 5) Vertical curves. Stationing and elevation of VPI, VPC, and VPT and curve length.
- 6) Horizontal curves. Stationing of PC, PT, and curve element information.
- 7) Slope of the roadway between each grade break.
- 8) Stationing to match points of existing roads or intersections.

B. Intersection and Cul-de-Sac Details.

- 1) Radii of all intersections.
- 2) Elevations at PC and PT points, high points, and at mid radii.
- 3) Curb elevation along the cul-de-sac at intervals no greater than 50-feet in the outside curb line and corresponding elevation along the interior curb line.
- 4) Special details of intersections which may include turning lanes, acceleration/deceleration lanes or other design specific requirements shall be provided in the plan set.

C. Concrete Joint Layout Plan.

- 1) Concrete pavements including concrete base(s) for HMA/PCC composite pavement sections shall have a joint layout plan and details. The jointing plan can be completed by the design engineer or as a required submittal by the Contractor- See Village Standard Construction Specification VS-0500 (Section 8 – Concrete Pavement).
- 2) The jointing plan and details shall provide an overall layout and horizontal positioning for jointing the roadway, intersections, tapers, cul-de-sacs, and boxing out structures.
- 3) Jointing layout shall follow the general guidelines as provided by the American Concrete Pavement Association (Intersection Joint Layout) and Wisconsin Pavement Association (Concrete Pavement Inspection Guide for WisDOT projects).

END OF SECTION

SECTION 2.5 GRADING AND EROSION CONTROL PLAN

1. Introduction

A grading plan is an important element in ensuring that topographic land alterations, development, filling, grading, or other work associated with changing land elevations or drainage patterns on a property is done in a responsible fashion considering the relationship with adjacent properties and future land use plans in order to prevent property damage, flooding, standing water, erosion, and development problems.

2. Compliance with the following:

- A. Chapters 395, 370, and 470 of the Village Municipal Code – Land Division and Development Control
- B. Chapter 381 of the Village Municipal Code – Construction Site Maintenance and Erosion Control.
- C. Chapter 298 of the Village Municipal Code – Storm Water Management and Storm Water Drainage Facilities
- D. NR 151 of the Wisconsin Administrative Code
- E. Wisconsin Department of Natural Resources Storm Water Construction Technical Standards

3. Land Activities

A grading and erosion control plan is required for the following classified land activities:

- A. Engineer Designed Land Activities. Engineer Designed land activities include land development, grading, or land alteration activities which are required to have detailed plans prepared by a Wisconsin registered licensed professional engineer. Engineered land activities include:
 - 1) Residential subdivision development.
 - 2) Commercial, industrial, and institutional developments.
 - 3) Park and recreational development.
 - 4) Any land development or construction activity greater than 0.5-acres in size or any size that in the judgment of the Village Engineer requires a plan prepared by a professional engineer.
- B. Surveyor Designed Land Activities. Surveyor designed land activities include smaller land development or land alteration activities which are required to have detailed plans prepared by either a Wisconsin registered licensed professional engineer or a Wisconsin

registered licensed land surveyor who is qualified to prepare grading and erosion control plans. Surveyor designed land activities include:

- 1) Development of residential lot(s) not located in a subdivision with an approved master grading plan.
- 2) Any land development or construction activity which includes land grading alterations or land disturbance less than 0.5-acres that in the judgment of the Village Engineer requires professional surveying and grading plan preparation.

C. Minor Land Activities. Minor land activities include small landscaping or other projects considered minor in nature which in the judgment of the Village Engineer does not need professional surveying or engineering and can be completed by a landowner or contractor. Minor land activities include:

- 1) Small landscaping, lot improvements, or other projects that requires a land disturbance permit to be issued to the Landowner and in which the project involves a limited area, minor land disturbance, minor fill quantities, and will not adversely impact the subject property or a neighboring properties.
- 2) Minor land activities cannot involve work in or in close proximity to a wetland, floodplain, navigable water way, or other environmentally sensitive areas that requires professional survey delineations or engineering analysis.

4. Preparation of Plan(s)

A. Engineer Designed Land Activities.

- 1) Plans must be prepared, stamped, and signed by a Wisconsin registered licensed professional engineer.

B. Surveyor Designed Land Activities.

- 1) Plans must be prepared, stamped, and signed by either a Wisconsin registered licensed professional surveyor or engineer who is qualified to prepare grading and erosion control plans.

C. Minor Land Activities.

- 1) Plans or submittal materials may be prepared by the landowner, landowner's authorized agent, contractor, or other(s). All plans, details, and project submittal information must be submitted by the landowner or the landowner's authorized agent.

5. General Design Requirements

A. Drainage.

- 1) Grading plans shall accommodate offsite drainage.
- 2) Grading plans must ensure positive drainage through the project area.

- 3) Grading plans shall not block, impede, or alter storm water surface drainage; cause upstream ponding or back-water problems; or adversely affect adjacent or downstream properties.

B. Berms.

- 1) The maximum slope for berms is 3:1.
- 2) Berms shall be constructed in a way not to impede, restrict, or block surface water drainage.
- 3) Berms shall not obstruct traffic vision at road intersections.

C. Storm Water Ponds.

- 1) The maximum slope below the safety shelf is 2:1.

D. Minimum and Maximum Slopes.

- 1) All rear and side yard drainage swales and roadside ditches shall have a minimum 1.0% gradient.
- 2) All rear and side yard drainage swales shall be designed to be centered on property line(s).
- 3) The maximum slope for any grading, except berms and wet detention ponds below the safety shelf, shall be 4:1.

E. Earthwork.

- 1) Plans shall be prepared to minimize the need for excessive import or export of fill material.
- 2) Earthwork calculations shall be submitted for major development projects or other projects as requested by the Village Engineer. Earthwork calculations shall be submitted for the entire development with the engineer's estimate of the amount of import or export of fill needed for the site grading plan. Offsite borrow areas and surplus disposal areas must be addressed and identified.

F. Permits / Approvals.

- 1) Copies of applicable permits as prepared for submittal shall be provided with the grading and erosion control plans: WDNR WRAPP permit, work within navigable waterway, wetland fill, Kenosha County Highway and/or WDOT permits, and all other county, state and federal permits.
- 2) Prior to construction commencement, plans must be approved by the Village and all project permits must be issued.

6. Plan Items.

- A. The following plan elements shall be provided in grading and erosion control plans.
- 1) Drawings shall be based on USGS vertical datum (NGVD29 or NAVD 88) and the state plane coordinate system, south zone (NAD27). Plans must contain a note stating the datum and coordinate system used.
 - 2) Base map data such as property boundary, right-of-way(s), building and utility structure(s), roadway(s), curb line(s), sidewalk(s), easement(s), fence(s), tree line(s), storm sewer facilities etc.
 - 3) Existing and proposed topographic contours at 1-foot intervals. Topography information shall extent onto adjoining properties to adequately assess the potential impact of the proposed development on existing homes, businesses, and associated drainage.
 - 4) Proposed spot grade elevations defining high points, swale centerline grades, pavement / curb grades and other detailed topographic plan items.
 - 5) Location and topographic contours of proposed storm water detention, retention, or infiltration facilities with normal and high water (100-year) elevations indicated.
 - 6) Cross-section of proposed detention, retention, or infiltration facilities.
 - 7) Location and design of emergency overflow weirs and direction of emergency overland flow paths with details of control structures.
 - 8) Location and flow path of 100-year overland flood routes through the project area.
 - 9) Limits and applicable setbacks of wetlands, ordinary high water mark, floodplain and floodway boundaries with appropriate base flood elevations.
 - 10) Proposed top of foundation elevation(s) and finished yard grade elevation(s) at the foundation of proposed buildings. Building design for habitable living space below the first floor elevation shall indicate the floor elevation of that space.
 - 11) Location of temporary soil stockpiles.
 - 12) Master grading plans for residential lots shall include proposed spot grades every 25-feet along all lot lines, centerline of drainage swales, and high points.
 - 13) Grading plans for subdivisions shall include lot number(s) corresponding to the subdivision plat.
 - 14) Location, dimensions, and details of all construction site erosion control measures, such as silt fence, hay bales, inlet protection, sedimentation basins etc.
 - 15) Sediment and erosion control plan per Chapter 381 (§ 381-9) of the Municipal Code.
 - 16) Location, dimensions, and details of construction entrances and stone tracking pads.

- 17) In areas of floodways, wetlands, and conservation areas, or other identified protective areas, orange construction fence shall be installed immediately down slope from the silt fence, easement line, or other line of delineation. The fence shall be installed to prevent intrusion into the protected area.
- 18) Erosion control provisions, meeting WDNR standards, including details and calculations of erosion control treatment practices.
- 19) Location of areas to be sodded or seeded and mulched or otherwise stabilized with vegetation and identification of seed mixtures or cover type.
- 20) A construction sequence schedule.

END OF SECTION

SECTION 2.6
CONSTRUCTION AND SPECIFICATION MANUAL

1. Introduction

A project construction and specification manual (Project Manual) is required for all public infrastructure construction and private infrastructure associated with residential private roads and utilities.

2. Special Provisions for Industrial and Commercial Developments

- A. Village of Pleasant Prairie standard construction specifications (Project Relevant Sections).
- B. Special provisions.
 - 1) Special provisions by design engineer that may cover construction items or other project or contract provisions not included in the Village standard construction specification.

3. Project Manuals by Developer for Public Infrastructure and Residential Development

- A. Project bidding and construction contract administration is the sole responsibility of the developer and/or their agents. The Village, at the Developer's cost, will provide construction inspection (not contract administration), preparation of record drawings for public improvements, and provide GIS data for public improvements.
- B. The project manual format and specific contract between the bidder and developer is left to the developer's discretion subject to Village approval; however, the following items, at a minimum, must be included in the Project Manual for infrastructure construction.
 - 1) Title sheet of manual with official project name, date of preparation, and applicable revision dates. The title sheet must be stamped / sealed by a registered Wisconsin professional engineer under whom the plans were prepared.
 - 2) Contract documents.
 - 3) Insurance requirements and Certificates of Insurance with the Village named as an insured party.
 - 4) Bid Form with item quantity schedule.
 - 5) Village of Pleasant Prairie standard construction specifications.
 - 6) Special provisions.
 - a. Special provisions by design engineer that may cover construction items or other project or contract provisions not included in the Village standard construction specification.

4. Project Manuals by Village

- A. In addition to the requirements of section 3 above, the construction and specification manuals for public improvement projects in which the Village or their authorized agent bids, constructs, and performs the contract administration shall include the following in the Project Manual.
- 1) Official notice to bidders.
 - 2) Instruction to bidders.
 - 3) Wage rate requirements, determination, and forms, if applicable.
 - 4) Bid form, also including:
 - a. List of subcontractors and suppliers.
 - b. Affidavit of organization and authority.
 - c. Bid bond.
 - 5) Agreement, also including:
 - a. Performance bond.
 - b. Payment bond.
 - 6) *Standard General Conditions of the Construction Contract* EJCDC C-700.
 - 7) Village supplementary conditions to EJCDC No. C-700.
 - 8) Special provisions.

END OF SECTION

SECTION 2.7
RESIDENTIAL LOT PLAT OF SURVEY(S) AND GRADING CERTIFICATION

1. Introduction

This chapter identified requirements for plat(s) of survey(s) associated with residential single family lot development as part of the building permit process.

2. Grading / Drainage Plan Prerequisite

A Village approved grading and erosion control plan shall be required to be submitted for review and approval prior to issuance of a building permit.

A. Subdivisions with Pre-Approved Master Grading Plans.

1. The approved master grading plan shall be used for the Lots located within subdivisions that have pre-designed and Village approved grading plans. The plat of survey shall show all the designed grade information including spot grades and proposed topographic contour information.
2. The house style (i.e. rear basement exposures) for the lot shall match that required by the grading plan. For example if the master grading plan calls for a half or full exposed basement for the lot, the actual house style shall coincide with the lot plan.
3. Adjustments of proposed topographic contours (within the lot) shall be made on the plat of survey based on actual building envelope dimensions and placement on the lot, however, the building placement shall work with matching the subdivision lot line grades. No adjustments in common lot line grades shall be made without approval of the Village, Developer, and affected adjacent landowner(s).

B. Lots With No Pre-Approved Grading Plan.

1. A grading, drainage and erosion control plan must be prepared by the Developer and approved by the Village for lots that do not have an approved plan on file with the Village. The grading plan shall be prepared by a Wisconsin registered licensed professional engineer or surveyor in accordance with Section 2.5 of this ordinance "Grading and Erosion Control Plan".
2. Plats of Survey shall show all designed grade information including spot grades, and existing / proposed topographic contour information.

4. Plat of Survey Submittals

A. Three plat(s) of survey(s) are required to be submitted to the Building Inspection Department during the lot development process as noted below:

1) Plat of Survey –As a Condition Precedent to Building Permit Issuance.

a. This survey is submitted with the building permit application for review and approval by the Building Inspection and Community Development Departments showing all standard requirements set forth in this ordinance.

2) Plat of Survey – Foundation Certification.

a. This survey is submitted upon completion of the foundation, prior to further framing construction of the home.

b. Survey is to include all requirements and additional requirements for verification of building setbacks and foundation certification.

3) Plat of Survey – Final Occupancy Grading Certification.

1. This survey is submitted upon completion of the home construction and final lot grading with topsoil and/or sod placement. The survey is to be submitted within 3-months after conditional occupancy is issued by the Village or if the conditional occupancy is issued during the non-growing season, by August 1st of the immediate next growing season.

2. Survey is to include all standard requirements and additional requirements for foundation certification and final occupancy.

5. Plat of Survey – Building Permit Issuance

A. Standard Requirements.

1) Title of Survey: (i.e. Plat of Survey – Building and Zoning Permit Issuance; Plat of Foundation -Survey Certification, or Plat of Survey-Final Occupancy Grading Certification).

2) Name and address of applicant, owner of the site, and Wisconsin registered land surveyor.

3) Wisconsin registered land surveyor stamp and certification.

4) Graphic scale and north arrow.

5) Property description.

- 6) Property boundary with survey dimensions.
- 7) Existing and proposed right-of-way lines and road names adjacent to site.
- 8) Location of existing or proposed water, sewer, and storm sump service line(s) servicing the property.
- 9) Location of existing top of road curb adjacent to the site.
- 10) Location of existing or proposed sidewalk adjacent to property, if applicable.
- 11) Location and dimension of storm water drainage system(s), driveway culverts, and direction of natural drainage pattern on and adjacent to the site.
- 12) Location of existing wetlands, floodplain, lakes, streams, swales, ditches, or other water courses on or immediately adjacent to the site.
- 13) All existing utility, drainage, and preservation easements.
- 14) Existing and proposed structure locations and building footprints and dimensioned setbacks (side yard, street yard, rear yard). Also include setbacks from wetlands and ordinary high water mark, as applicable.
- 15) Adjacent lands and building locations. Include existing adjacent house street yard setback to determine building site lines.
- 16) Location of permanent residential driveway with setbacks to the side property line, width of driveway at the right-of-way, and width of driveway at the curb.
- 17) Location of adjacent land wells, septic fields, or holding tanks and their distance to the property line.
- 18) Proposed top of foundation and finished yard grade per approved grading and drainage plan for the lot.
- 19) Date of plat preparation and revision dates.
- 20) Existing and proposed topographic information in accordance with Section 2.5 "Grading and Erosion Control Plan". Including but not limited to the following:
 - a. Existing and proposed elevation(s) located every 25-feet along each property line, centerline of drainage swales, top of curb elevations at side lot line

locations, and other required locations as may be requested by the Village Engineer.

- i. Existing elevations shall mean the existing elevations at the time of the plat preparation, prior to the home construction.
- ii. Proposed elevations shall mean the proposed elevations per the approved grading / drainage plan for the lot.

21) Identification of survey bearings base and survey benchmark(s).

6. Plat of Survey – Foundation Certification

A. All standard requirements in subsection 4 above plus the following:

- 1) As-built top of foundation elevation.
- 2) Revised building footprint and setbacks per as-built foundation location.
- 3) Location and dimension of all soil or dirt piles.

7. Plat of Survey – Final Occupancy Grading Certification

A. All standard and foundation certification requirements in subsection 4 and 5 above plus the following:

- 1) Final as-built grading elevations shown with 1-foot topographic contour elevations for the entire lot or grading limits as shown in the grading plan for the lot.
- 2) As-built versus designed spot grades every 25-feet along each property line and centerline of any drainage swale(s) coinciding with the approved lot grading plan.
 - a. Final elevations shall mean the final elevations after the lot has been top-soiled, final graded, and/ or sod placed.
- 3) Location and dimension of all structures, decks, patios, and retaining walls on the property.

END OF SECTION

SECTION 3.0

PRECONSTRUCTION CONFERENCE AND CONSTRUCTION PROGRESS MEETINGS

1. Introduction

Pre-Construction Conference

A Pre-construction conference is required for all projects involving the construction of public facilities, subdivision development, commercial or industrial development, or any other project which is specified by the Village to have a pre-construction conference as a condition of plan approval. No site work shall commence until a pre-construction conference has been held.

Construction Progress Meetings

All projects, as determined by the Village, shall have regularly scheduled construction progress meetings, held at the Village offices or other Village approved locations.

2. Prerequisite

A. Prior to scheduling a pre-construction conference, the following items (as applicable) shall be completed and/or obtained and provided to the Village through the development review and approval process or as identified in Chapter 395 of the Land Division and Development Control Ordinance.

- 1) Village approved engineering plans and project specifications.
- 2) Subdivisions – approved final plat.
- 3) Village approved landscaping plan.
- 4) Village approved street signage plan.
- 5) Village approved street light plan.
- 6) Village Approved street pavement markings plan.
- 7) Executed contract documents.
- 8) Certificates of insurance.
- 9) Performance and payment bonds as applicable.
- 10) Executed developer's agreement.
- 11) All project related permits.
- 12) Irrevocable letter of credit and required cash payments and deposits.

3. Scheduling and Location of Conference

A. In general, the design engineer of record shall request and schedule a pre-construction meeting with the Village. In all cases, scheduling a pre-construction meeting is the responsibility of the Developer or their authorized agent.

B. The pre-construction conference shall be held at the Village offices in one of the following locations as determined by the Village.

- 1) Village Hall – 9915 39th Avenue, Pleasant Prairie, WI 53158
- 2) Village Municipal Building (Prange) – 8600 Green Bay Road, Pleasant Prairie, WI 53158
- 3) Other Village approved location.

4. Attendees

A. The pre-construction conference shall be attended by the following:

Attendees by Developer:

- 1) Developer.
- 2) Owner.
- 3) Design Engineer of Record.
- 4) Contractor (Project Manager and Superintendent).
- 5) Subcontractor Representative(s).
- 6) Local Utility Representatives, as applicable.

Attendees by Village (as applicable):

- 7) Engineering Department.
- 8) Village Construction Engineer or Manager.
- 9) Village Inspecting Engineer or Consulting Inspecting Engineer.
- 10) Building Inspection Department.
- 11) Community Development Department.
- 12) Fire and Rescue Department.
- 13) Police Department.
- 14) IT Department.

5. Pre-Construction Meeting Agenda and Moderation

A. The meeting agenda shall be prepared by the Developer's authorized agent, preferably the design engineer of record or construction manager. The preconstruction meeting shall at a minimum contain the following agenda items, as may be applicable to the project.

- 1) Introductions – meeting attendees.
- 2) Project description.
- 3) Listing of Contractors and Subcontractors for public or private improvements.
 - a) Company name(s), type of work, contact person.
 - b) Verification that contractor(s) are pre-qualified by the Village.
- 4) Permits and approvals.
- 5) Construction plans.
- 6) Construction access.
- 7) Erosion / sediment control.
- 8) Water main construction and inspections.
- 9) Sanitary sewer construction and inspections.
- 10) Storm sewer construction and inspections.
- 11) Roadway construction and inspections.
- 12) Digital Security Imaging System (DSIS) installation and inspections.
- 13) Work hours.
- 14) Contractors project schedule.
- 15) Contractor parking arrangements.
- 16) Job trailer location and security.
- 17) Inspection scheduling.
- 18) Construction staking & layout.
- 19) As-built survey requirements.
- 20) Pay requests and letter of credit reductions.

21) Emergency contacts.

22) Construction progress meetings.

- B. The meeting shall be moderated by the Developer's authorized agent, preferably the design engineer of record or construction manager.
- C. Meeting minutes shall be prepared by the moderator and distributed via email to all attendees within 10-business days of the meeting.

6. Construction Progress Meetings

- A. Construction progress meetings shall be held to enable an orderly review of the progress of work and to provide a discussion of problems, field changes, or other items that need coordination and/or discussion throughout the construction period.
- B. Progress meetings shall be held at regular scheduled times, as necessary to maintain progress of work.
- C. Progress meetings shall be attended by appropriate representatives of the Contractor, Village, and Developer.
 - 1) To the maximum extent possible, the Contractor shall assign the same representatives to represent Contractor at progress meetings throughout progress of work.
 - 2) Subcontractors and others may be requested and required to attend progress meetings in which their respective work is involved.
- D. Progress meetings shall at a minimum contain the following agenda items.
 - 1) Review, revise as necessary, and approve minutes of previous meetings.
 - 2) Review progress of work since last meeting, including current construction schedule and status of submittals for approvals.
 - 3) Identify problems which impede planned progress and develop corrective measures and procedures to regain planned schedule.
 - 4) Identify changes of work from contract or plans and ensure changes are acceptable prior those items being constructed.
 - 5) Review status of current schedule of values and pay requests.

END OF SECTION

SECTION 3.1
CONSTRUCTION INSPECTION SERVICES AND CONTRACT ADMINISTRATION

1. Introduction

This chapter identifies the requirements for construction inspection services and construction contract administration of public and private improvements.

2. Public Improvements

- A. All public roadways, storm sewers, sanitary sewers, water mains or other public improvements shall be inspected by the Village and/or the Village's hired consulting engineer, at the Developer's cost.
- B. Contractors shall comply with Chapter 150 of the Village Municipal Code "Contractor Qualification Ordinance of the Village of Pleasant Prairie" requiring pre-qualification of Contractors prior to obtaining bidding documents or submitting bids or acting as a contractor or sub-contractor on any public improvement project.
- C. All public improvements, including but not limited to, roadways, storm sewers, sanitary sewers, and water mains shall be staked by the Developer's engineer or contractor, at the Developer's cost.
 - 1) Survey control and staking information, including all updates and revisions, shall be provided to the Village.
 - 1) Village Inspection Services will perform quality assurance surveys and staking verifications.
 - 2) If no construction staking is being utilized, then the Contractor shall provide an alternative means of verification acceptable to the Village. The means of verification shall be approved by the Village prior to construction. If no acceptable means is established, the Village reserves the right to require public improvements to be field staked.
- D. The Developer shall coordinate their planned construction schedule with the Village and provide the Village with a minimum of two (2) months advance notice to allow the Village to obtain professional construction inspection services for the project.

3. Private Improvements – Responsibility of the Developer which may be transferred to an Association.

- A. All private improvements, including but not limited to, private roadways, storm sewers, sanitary sewers, and water mains located in residential developments which will be owned and maintained by an association shall be staked and inspected by the Developer meeting the requirements of this Chapter. All applicable building and plumbing permit inspections required by State and local codes shall be completed in addition to the Developer's engineer inspections.
 - 1) Developer's inspections shall be in accordance with this Chapter including the following sections: Inspection Services, Inspection Requirements, Inspection Certifications, and Inspection Logs.

4. Private Improvements – Commercial / Industrial / Institutional

- A. Inspections for all private improvements associated with commercial, industrial, or institutional development are the responsibility of the Developer and are subject to all State and local codes and building and plumbing inspections.
 - 1) Independent Inspection Services, Inspection Requirements, Inspection Certifications, and Inspection Logs requirements are at the discretion of the Developer.
- B. All private fire service water mains, including sprinkler system lead-ins and combination fire/water mains from public water mains must be inspected by the Village Building Inspection Department and Village Fire and Rescue Department as determined by the Village.

5. Construction Contract Administration

- A. Construction contracts that are executed by the Developer shall be administered by the Developer or their authorized agent. The Developer and/or their representative shall participate in the pre-construction meeting, construction progress meetings, and construction related issues.
- B. The Developer shall remain responsible for all costs associated with plan errors, plan or field changes, or any other foreseen or unforeseen items needed to complete the construction of public and private infrastructure to Village standards.
- C. Construction contract change order(s) shall be administered by the Developer and approved by the Village.
- D. Village inspection of public infrastructure does not alleviate the Developer's responsibility of corrective work or costs thereof associated with defective work or construction that is not compliant with approved plans and specifications.

6. Construction Inspection Services

- A. All construction services not performed by Village Staff shall be performed by a qualified firm with municipal engineering experience in the State of Wisconsin carrying professional liability insurance.
- B. The on-site inspector shall be competent, have the knowledge and education pertaining to public infrastructure construction, proven experience performing on-site inspections of infrastructure, and be under the direct supervision of a Wisconsin licensed Professional Engineer. An experience resume' of the designated on-site inspector shall be provided to the Village for its approval.
- C. Inspection responsibilities shall include, but are not limited to the following:
 - 1) Review and be familiar with project plans, specifications, and permit provisions.
 - 2) Attend the project pre-construction and progress meetings.
 - 3) Provide on-site observations of the work and field checks of materials and equipment to further protect against defects in the work and help ensure that the construction meets the project specifications.
 - 4) Take and create detailed construction observation notes and inspection logs.
 - 5) Create, distribute, and follow-up on punch list items.
 - 6) Keep close communications with Village and Developer's representatives as to the progress, adequacy of work, problems, or other pertinent information related to the construction.
 - 7) Keep a record of constructed quantities of work which will serve as the basis for payment reviews.
 - 8) Review change orders, field changes, and pay requests.
 - 9) Provide written correspondence to the Village regarding recommendation of acceptance of work, certifying that work was completed in accordance with plans and specifications.
- D. Construction inspection services is not meant to supervise, direct, control, have authority over or be responsible for the contractor's means, methods, techniques, sequences, or procedures of construction or the safety precautions and programs incident thereto, or for any failure of contractor to comply with laws and regulations applicable to the performance of work.

Construction inspection services shall include the preparation and submittal of record drawings and GIS update data to the Village.

7. Inspection Requirements

A. Roadways

<u>Item</u>	<u>Inspection Required</u>
1) Roadway cut section	Full time
2) Roadway fill section	Full time
3) Excavation below subgrade	Full time
4) Filling of excavation below subgrade	Full time
5) Proofrolling subgrade	Full time (written certification)*
6) Placement of aggregate base course	Full time
7) Proofrolling aggregate base course	Full time (written certification)*
8) Installation of curb and gutter	Full time
9) Pavement placement	Full time
10) Sidewalk construction	Full time
11) Manhole and inlet adjustments	Full time
12) Pavement marking and signage	Part time
13) Restoration	Part time
14) Punch list work	Part time

B. Storm Water

<u>Item</u>	<u>Inspection Required</u>
1) Pipe installation	Full time
2) Structure installation	Full time
3) Manhole invert pouring	Part time
4) Pond excavation	Part time
5) Pond liner installation	Full time
6) Pond embankment / keyways	Part time
7) Rip-rap installation	Part time
8) Open channels / swales	Part time
9) Punch list work	Part time

C. Sanitary Sewer

<u>Item</u>	<u>Inspection Required</u>
1) Pipe installation	Full time
2) Structure installation	Full time
3) Manhole invert pouring	Part time
4) Testing and inspection	Full time (written certification)*

D. Water Main

<u>Item</u>	<u>Inspection Required</u>
1) Pipe installation	Full time
2) Structure installations	Full time
3) Testing and Disinfection	Full time (written certification)*

***Written Certification:** Items requiring written certification shall be provided on Village approved or Village standard forms.

8. Inspection Certifications

- A. Upon substantial completion of the project a recommendation of Preliminary Acceptance shall be provided by the construction service firm / inspector to the Village. The recommendation shall certify that inspection services were completed per Village requirements and observed construction was in conformance to plans and specifications. A punch list of items to be completed for Final Acceptance shall accompany the recommendation of Preliminary Acceptance.
- B. Upon final completion of the project a recommendation of Final Acceptance shall be provided by the construction services firm / inspector to the Village. The recommendation shall certify that inspection services were completed per Village requirements, observed construction was in conformance to plans and specifications, and that all punch list items have been completed.

9. Inspection Logs

- A. Inspection logs shall include the following minimum information.
 - 1) Project name and date of report.
 - 2) Name of firm providing the inspection services, name of inspector, name of supervising engineer, and names of all contractors performing the work.
 - 3) A detailed description of work performed including the following information:
 - a. Work type and location.
 - b. Weather.
 - c. Equipment.

- d. Construction materials used (bedding, backfill, pipe material, pavement materials, etc.)
- e. Construction item quantities installed.
- f. Conflicts encountered and resolutions thereof.
- g. All drain tiles encountered and methods of repair and /or connection to storm sewer system.
- h. Testing and inspection information.
- i. Any observed construction problems and actions taken.
- j. Pertinent construction information to be used for record drawings or construction records.

B. An electronic copy of all inspections logs shall be provided to the Village.

10. Costs

A. All costs associated with construction services shall be paid for by the Developer /Owner.

END OF SECTION

SECTION 3.2 RESIDENTIAL SUBDIVISION CONSTRUCTION

1. Introduction

All residential subdivision construction shall be completed meeting the Village design and construction standards. Subdivision construction shall be completed in an orderly fashion avoiding non-compliance of standards and regulations. The following is a general outline of construction for subdivision construction. The exact construction schedule and work sequencing shall be identified for each project, approved by the Village, and discussed at the pre-construction meeting.

2. Compliance with the following chapters is required:

- A. Chapter 395 of the Village Municipal Code – Land Division and Development Control.
- B. Chapter 150 of the Village Municipal Code – Contractor Qualification Ordinance.
- C. Chapter 405 of the Village Municipal Code - Village Standard Construction Specifications.
- D. Chapter 370 of the Village Municipal Code - Building and Mechanical Code

3. Prerequisites

- A. Prior to scheduling a pre-construction conference, the following items (as applicable) shall be completed and/or obtained and provided to the Village through the development review and approval process or identified in reference in Chapter 395.
 - 1) Village approved engineering plans and project specifications.
 - 2) Subdivisions – approved final plat.
 - 3) Village approved landscaping plan.
 - 4) Village approved street signage plan.
 - 5) Village approved street light plan.
 - 6) Village approved street pavement markings plan.
 - 7) Executed contract documents.
 - 8) Certificates of insurance.
 - 9) Performance and payment bonds as applicable.
 - 10) Executed developer's agreement.
 - 11) All project related permits.
 - 12) Irrevocable letter of credit and required cash payments and deposits.

4. Design Engineer Coordination

- A. Prior to construction, the subdivision design engineer must schedule and coordinate with the Village to have the following completed.

- 1) Transfer of electronic utility information for the pre-construction GIS update, in accordance with Section 4.2 of this manual.
 - 2) Transfer of electronic and paper plan sets for Village use in construction related services.
- B. The design engineer shall be readily available during the course of construction to answer any questions that may arise by the Village, contractor, or others pertaining to the design and plan drawings. The design engineer shall be responsible for making any plan changes due to errors or field conditions and distributing them to the developer, Village, Village's consulting engineer for construction inspection services, and contractor.

5. Contractors

- A. Contractors shall comply with Chapter 150 of the Village Municipal Code "Contractor Qualification Ordinance of the Village of Pleasant Prairie" requiring pre-qualification of Contractors prior to obtaining bidding documents or submitting bids or acting as a contractor or sub-contractor on any public improvement project.

6. Preconstruction Conference(s)

- A. A preconstruction conference shall be held, prior to commencing any construction activities in accordance with Section 3.0 of this manual. Separate pre-construction meetings shall be held for each of the following activities:
- 1) Mass grading, storm sewer, sanitary sewer, water main, and roadway construction.
 - 2) Utility services (gas, electric, etc.).
 - 3) Street lighting installation.
 - 4) Street tree installation.

7. Subdivision Construction Schedule

- A. Standard subdivision construction shall be completed in one phase such that all improvements are completed prior to building permits being issued. These improvements include but are not limited to the following:
- 1) Site grading / Erosion Control.
 - 2) Sanitary sewer.
 - 3) Water main.
 - 4) Storm sewers and storm water management facilities.
 - 5) Roadway.

- a. Composite roads to include aggregate base, curb and gutter, concrete base, and asphalt surface.
 - b. Private asphalt roads shall include aggregate base, curb and gutter, asphalt binder, and asphalt surface. Construction phasing of private roads may be considered and subject to terms of the Development Agreement.
- 6) Sidewalks.
 - 7) Street lighting.
 - 8) Street signs.
 - 9) Street trees.
 - 10) Street Pavement markings.
 - 11) Service utilities (i.e. gas, electric, phone, etc.)
- B. Preliminary acceptance of improvements shall be scheduled to include all improvements unless otherwise approved by the Village to include partial acceptance of improvements near the end of the construction season with the following minimum items completed for the first requests.
- 1) Site grading, sanitary sewers, water mains, storm sewers, and roadways.
- C. Roadways shall be scheduled to be completed (paved) by October 15th and be preliminarily accepted by the Village prior to the winter season. If roadways are not paved and accepted prior to the winter season the Village may elect not to take responsibility of plowing the public roads, in which the Developer shall plow the roads as may be required by the Village for utility and emergency access purposes.

8. Survey / Construction Staking

- A. All public and private improvements, including but not limited to, roadways, storm sewers, sanitary sewers, and water mains shall be staked by the Developer.
- B. The Developer sets survey control for the entire site.
- C. Survey control and staking information (including revisions and updates) shall be provided to the Village, Village's consulting engineer, and contractor.
- D. The Village may perform quality assurance surveys during the project. Such surveys do not relieve the Developer of the responsibility for performing all surveys required to construct the project or errors / omissions that may be found.

- E. Any identified or suspected errors in survey control(s) shall be immediately documented by the observing party. The Village, Village's consulting engineer, developer's surveyor, and contractor shall be immediately notified.

9. Utility Services (gas, electric, etc.)

- A. The Developer or their authorized agent shall coordinate with all respective utility companies for services and distribution systems for the subdivision. Coordination shall begin during the project design and continue through construction.
- B. Detailed gas, electric, and other service utility distribution system plans shall be submitted to the Village for review and approval. Utility road crossings shall be coordinated and identified ahead of the road construction schedule.
- C. The Developer's contractor shall coordinate the installation of the casings/conduits for utility street crossings as part of the road construction. All casing/conduit street crossings within the road right-of-way shall be as-built surveyed by the Village's construction inspection services, placed on project record drawings, and field marked by the contractor for future location by the utility companies.
- D. Upon Village approval of site grading as-built(s) and verification that site utility areas are within 4-inches of final grade, the developer shall notify We-Energies for utility installation.
- E. Utility companies shall file work in the right-of-way permit applications for all utility work located within the Village right-of-way and coordinate their work schedule with the Village.
- F. All utility work within Village right-of-way will require inspection by the Village.
- G. The Developer's surveyor shall stake the limits of the utility easements and right-of-ways for utility installation reference.
- H. Upon installation of utilities, the Developer's contractor shall re-grade and restore utility trenches.
- I. A utility as-built survey shall be provided to the Village by the Developer's surveyor to verify that the locations of underground utility services have been constructed in pre-approved alignments and utility easements.

10. Erosion Control

- A. The Developer is responsible for field staking erosion control measure locations for contractor's installation.

- B. The Developer's contractor shall notify the Village Construction Engineer of erosion control device installation for inspection within 14- days of installation. Erosion control permit form EC-2 shall be submitted as part of Village notification.
- C. The Developer's contractor shall provide the Village with a 48-hour notice of land disturbing activity. (From EC-3 of Erosion Control Permit).
- D. The Developer's contractor is responsible for all required erosion control site inspections and documentation thereof as required by permits. The Village will make periodic independent inspections.
- E. The Developer's contractor is responsible for maintaining temporary erosion control measures until the site is stabilized and removing all temporary erosion control measures upon stabilization of the site.

11. Site Grading

- A. The Developer shall provide construction inspection services for site grading work (outside road right-of-ways) including construction of storm water management ponds.
- B. The Developer's surveyor shall provide grading record drawings (as-built survey) of all lots, easement areas, outlots, and storm water ponds..
 - 1) Grades for areas that are top-soiled to final grade shall be within 0.15 feet of final grade as identified on the Village approved grading plan.
 - 2) Grades along lot lines that are left to be top-soiled by the property owner(s) during home construction shall be within left low within 0.3 to 0.5-feet of final grade as identified on the Village approved grading plan.
- C. The entire site shall be restored with temporary or permanent seeding per the plans and/or Village requirements.

12. Sanitary Sewer

- A. The Village will provide construction inspection services for all public sanitary sewer construction in accordance Section 3.1 of this ordinance.
- B. The contractor constructs sanitary sewer per plans and Village specifications and completes all punch list items.
- C. The Village will prepare record drawings and data to update the Village's geographical information system in accordance with Sections 4.1 and 4.2 of this ordinance.

13. Water Main

- A. The Village will provide construction inspection services for all public water main construction, in accordance with Section 3.1 of this ordinance.
- B. The contractor constructs water mains per plans and Village specifications and completes all punch list items.
- C. All water valves shall be keyed and/or tested by the Village.
- D. The Village will prepare record drawings and data to update the Village's geographical information system in accordance with Sections 4.1 and 4.2 of this ordinance.

14. Storm Sewer

- A. The Village will provide construction inspection services for all public storm sewer construction and the developer will provide construction services for private storm sewer construction in accordance with Section 3.1 of this ordinance.
- B. The contractor constructs storm sewer per plans and Village specifications and completes all punch list items.
- C. Construction services shall provide record drawings and data to update the Village's geographical information system for public and private storm sewers in accordance with Sections 4.1 and 4.2 of this ordinance

15. Roadway and Sidewalks

- A. The Village will provide construction services for all public roadway and sidewalk construction and the Developer will provide construction services for all private roadway and sidewalk construction in accordance with Section 3.1 of this ordinance.
- B. The contractor shall construct roadway and sidewalks per plans and Village Specifications.
- C. Prior to paving, all water valves in pavement areas shall be re-keyed and checked by the Village. All manholes and valves shall be double checked by the contractor to ensure that they are set properly to grade. Any deficiencies found by these checks must be repaired prior to paving.
- D. Construction services shall provide as-built information verifying that the curb and sidewalk elevations are in accordance with approved plans.

16. Street Signs

- A. The Developer shall install street signs per the Village approved plans.
- B. The Developer shall provide street sign location information for the Village's GIS update in accordance with Section 4.2 of this ordinance.

17. Street Trees

- A. The developer's landscaper shall stake the public street tree locations.
- B. The Village shall inspect, make field adjustments, and approve the street tree staking locations prior to the landscaper delivering and planting the trees.
- C. The trees shall be installed per Village Approved plans and Village specifications.
- D. The developer's landscaper shall submit an as-built street tree plan.
- E. The Developer shall provide street tree information for the Village's GIS update, in accordance with Section 4.2 of this ordinance.

18. Street Lights

- A. Street lights shall be installed by WE-Energies or in the case of private street lights by the developer's electrical contractor.
- B. All necessary electrical permits from the Village's Building Department shall be applied for and obtained.
- C. Street lights and electrical wiring shall be installed per Village approved plans and specifications and shall be coordinated with the Village.
- D. The Developer's shall provide the Village with record drawings and as-built digital survey information of the electrical wiring and street light locations.

19. Acceptance of Improvements

- A. Upon completion of specified improvement(s), the design engineer, developer, or contractor shall make a written request of acceptance in accordance with Section 1.0 of this ordinance.
- B. The following documentation must be provided prior to request of acceptance.

- 1) Record drawings and as-built information in accordance with Sections 4.1 and 4.2 of this ordinance.
- 2) Construction inspection records.
- 3) Final lien waivers.
- 4) Other documentation that may be required by Village to satisfy that the project work is acceptable and the contractor's and developer's obligations have been fulfilled.

20. Residential Lot Development

After acceptance of improvements disturbed or damaged on Village property within the right of way caused by activities associated with home construction, shall be repaired / replaced by the respective lot owner or builder associated with the activity at their cost.

END OF SECTION

SECTION 4.0
RECORD DRAWINGS AND AS-BUILT DATA
COMMERCIAL / INDUSTRIAL / PRIVATE IMPROVEMENTS

1. Introduction

- A. Record drawings and electronic digital files meeting Village requirements are required for all constructed improvements associated with commercial, industrial, or other approved private development projects.
- B. Public Improvements and Private Residential Subdivision Improvements shall follow requirements in Sections 4.1 and 4.2.

2. Construction Requiring Record Drawings

- A. Record drawings are required for the following items.
 - 1) Buildings, parking lots, driveways, and other site plan features that have setback requirements.
 - 2) Private water systems, storm sewer systems, and sanitary sewer systems.
 - 3) Private storm water management facilities. (i.e. ponds, swales, open channels etc.)
 - 4) Private street lights.
 - 5) Private irrigation system piping within public right-of-ways or easements.
 - 6) Site and lot grading.
 - 7) Street tree plantings.
 - 8) Any other site specific design feature that needs construction verification or permanent construction records as determined by the Village.

3. Record Drawings

- A. Record drawings shall be completed by submitting as-built survey drawings of the project improvements.
- B. The as-built survey shall contain the plan view of all utilities with either:
 - 1) Data tables for as-built utility information (invert elevations, rim elevations, utility size(s), etc.); or
 - 2) Overlaid design information neatly crossed out with legible as-built information provided.

- C. As-built grading shall include topographic contours and spot grades to sufficiently show how the site is graded. The record drawing shall cover the entire grading limits and disturbed areas including designed high points, low points, swales, berms, and all other designed topographic features of the site.

4. “Record Drawing” Designation

- A. Each applicable plan sheet which has been revised to reflect the constructed improvements shall have the following.
 - 1) Notation and/or stamp indicating that the plans have been revised to conform to construction records “Record Drawing”.
 - 2) Firm name which prepared the “Record Drawing” and date of preparation.
 - 3) If construction information is obtained by a source other than the firm preparing the “Record Drawing” the information source shall be noted on the plan.
 - 4) Any record drawing disclaimer(s) for third party use, limits of accuracy, etc. shall be reviewed by the Village prior to inclusion.
 - 5) All engineering plan sheets not changed and included in the overall “Record Drawing” plan set, shall have a notation “Not Revised to Reflect Construction Records”.

5. Information Requirements

Minimal information requirements to be reflected on the “Record Drawings” are listed in the following sections.

A. Water System.

- 1) As-built location, size, and pipe material for all mains and services.
- 2) As-built locations for all appurtenances (valves, hydrants, etc.)

B. Sanitary System.

- 1) As-built location, size, and pipe material for all mains and services.
- 2) As-built lengths and slopes for sewer mains only.
- 3) As-built manhole rim and pipe invert elevations for all manholes, including sampling manhole.
- 4) Provide the following as-built information for services that are not directly connected to a manhole:
 - a. Distance of service from downstream manhole.
 - b. Riser height, if applicable.

C. Storm Water System.

- 1) As-built location, size, and pipe material for all mains, laterals, roof drainage collections systems, or other drainage systems.
- 2) As-built lengths and slopes for storm mains and culverts that convey significant offsite drainage, as determined by the Village.
- 3) As-built rim elevations on inlets, catch basins, manholes, and other facility structures.
- 4) As-built pipe invert elevations for all pipes within inlets, catch basins, manholes, end sections, headwalls, culverts, and other facilities.
- 5) Storm Water Management Ponds, swales, diversion berms, re-graded streams and channels upon final grading completion:
 - a. Provide as-built grading for storm water management pond(s), swale(s), diversion berm(s), and other storm water management feature(s) to sufficiently show how they were constructed and to accurately be able to calculate as-built pond volumes.
 - b. Submit certified calculations of as-built pond volume and verify that it equals or exceeds the required active storage volume.
 - c. Elevation of primary and secondary outlet structure devices. Verify installation and size of restrictors or outlet systems.
 - d. Elevation of normal water elevation.
 - e. Elevation of pond bottom and sediment storage depth.
 - f. Verify and show any pond design features such as safety shelf(s), forebay(s), baffle(s), liners, etc.

D. Street Lights and Signals.

- 1) As-built pole locations.
- 2) As-built electrical service wiring location and alignments.
- 3) Any other appurtenances (i.e. pull boxes, loop detectors, electrical boxes, controls etc.)

E. Irrigation System.

- 1) As-built irrigation piping location, alignments, control boxes, or valve locations within public road right-of-ways or utility easements.

F. Street Trees.

- 1) As-built street tree locations for trees planted within public right-of-ways or utility easements.
- 2) Identified street tree species.

6. Record Drawing Submittal Format

- A. Record Drawings shall be submitted as an electronic pdf. The pdf shall be created directly from the drawing files, whenever possible.
- B. In addition to the pdf, a digital file of all the as-built data shall be submitted for the Village's Geographical Information System (GIS) update. The digital data shall meet the following requirements.
 - 1) Acceptable Data Formats: GIS ESRI Shapefiles, coverages, AutoCAD files in .dxf, Microstation files in .dgn formats.
 - 2) Data Projection: Wisconsin State Plane South Coordinate System based on the NAD27 Datum.
 - 3) Accuracy: All measurements must be in a tolerance of ± 0.1 feet horizontal and ± 0.1 feet vertical.

END OF SECTION

SECTION 4.1
RECORD DRAWINGS
PUBLIC IMPROVEMENTS AND PRIVATE RESIDENTIAL IMPROVEMENTS

1. Introduction

Record drawings are required for all constructed public improvements and private residential improvements. The record drawings shall provide a means of verification that the intent of the approved engineering design has been met and provide a record of constructed information.

2. Construction Requiring Record Drawings

A. Record drawings are required for the following infrastructure construction:

- 1) Public and private water systems, storm sewer systems, and sanitary sewer systems.
- 2) Public and private storm water management facilities (i.e. ponds, swales, open channels etc.).
- 3) Public and private street lights and signals including electrical wiring facilities.
- 4) Irrigation system piping.
- 5) Site and lot grading for subdivisions.
- 6) Street tree plantings.
- 7) Any other site specific design feature that needs construction verification or permanent construction records as determined by the Village.

3. Base Sheets

A complete set of the approved final engineering plans are to be utilized as the base sheets for the as-built record drawings. Design information shall be neatly crossed out so that they are legible to compare to the as-built record information.

4. “Record Drawing” Designation

A. Each applicable plan sheet which has been revised to reflect the constructed improvements shall have the following:

- 1) Notation and/or stamp indicating that the plans have been revised to conform to construction records “Record Drawing”.
- 2) Firm name which prepared the “Record Drawing” and date of preparation.
- 3) If construction information is obtained by a source other than the firm preparing the “Record Drawing” the information source shall be noted on the plan.
- 4) Any record drawing disclaimer(s) for third party use, limits of accuracy, etc. shall be reviewed by the Village prior to inclusion.
- 5) All engineering plan sheets not changed and included in the overall “Record Drawing” plan set, shall have a notation “Not Revised to Reflect Construction Records”.

5. Information Requirements

At a minimum, the following information shall be reflected on the “Record Drawings” as listed in the following sections below.

A. Water System.

- 1) Name of company that constructed the water system.
- 2) Water main and service pipe material.
- 3) As-built lengths, size, and slopes.
- 4) As-built station of service tap and length of service to curb valve.
- 5) As-built station locations for valves, hydrants etc.
- 6) If water main alignment is different than shown on the Village approved plans, cross out the planned location and draw in the as-built location.
- 7) Document any other as-built information which are changes from the design information shown on the engineering plans (hydrant bury depths, valve depths, materials, offsets, etc.)

B. Sanitary System.

- 1) Name of company that constructed the sanitary system.
- 2) Sanitary sewer material and class of pipe.

- 3) As-built lengths, size, and slopes.
- 4) As-built manhole rim elevations and station locations.
- 5) As-built pipe invert elevations for all pipes in manholes.
- 6) Provide the following as-built sanitary sewer service information:
 - a. Distance of service from downstream manhole.
 - b. Length of lateral.
 - c. Riser height.
- 7) If sewer main alignment is different than shown on the Village approved plans, cross out the planned location and draw in the as-built location.
- 8) Document any other as-built information which are changes from the design information shown on the engineering plans.

C. Storm Water Facilities.

- 1) Name of company that constructed the storm sewer system.
- 2) As-built lengths, size, and slopes.
- 3) As-built rim elevations on inlets, catch basins, manholes, and other facility structures.
- 4) As-built pipe invert elevations for all pipes within inlets, catch basins, manholes, end sections, headwalls, culverts, and other facilities.
- 5) Provide the following for as-built storm water sump lateral information. Different strategies may be used depending on design. Prior approval should be obtained from the Engineering Department for alternative location information.
 - a. Distance of service from downstream manhole or outfall.
 - b. Length of lateral.
- 6) If storm sewer alignment is different than shown on the Village approved plans, cross out the planned location and draw in the as-built location.
- 7) Storm Water Management Ponds, swales, diversion berms, re-graded streams and channels upon final grading completion:

- a. Provide as-built grading for storm water management pond(s), swale(s), diversion berm(s), and other storm water management feature(s) to sufficiently show how they were constructed and to accurately be able to calculate as-built pond volumes.
 - b. Submit certified calculations of as-built pond volume and verify that it equals or exceeds the required active storage volume.
 - c. Elevation of primary and secondary outlet structure devices. Verify installation and size of restrictors or outlet systems.
 - d. Elevation of normal water elevation.
 - e. Elevation of pond bottom and sediment storage depth.
 - f. Verify any pond design features such as safety shelf(s), forebay(s), baffle(s), liners, etc.
- 8) Document any other as-built information which are changes from the design information shown on the Village approved engineering plans.

D. Street Lights and Signals.

- 1) Name of company that installed the street lights and/or signal.
- 2) Pole locations.
- 3) Electrical service wiring location and alignments.
- 4) Any other appurtenances (i.e. pull boxes, loop detectors, electrical boxes etc.).

E. Irrigation system.

- 1) Irrigation piping location and alignments.
- 2) Control box location.
- 3) Valve locations.

F. Street Trees.

- 4) Street tree location.

5) Street tree species.

G. Site and Lot Grading.

1) Provide as-built grading including topographic contours to sufficiently show how the site is graded. The record drawing shall cover the entire grading limits and disturbed areas including designed high points, low points, swales, berms, and all other designed topographic features of the site.

2) Provide as-built lot line spot grades, in accordance with the master grading plan layout.

6. Record drawing Submittal Format

A. Record Drawings shall be submitted as an electronic pdf of each individual sheet plus one combined pdf plan set. The pdf(s) shall be created directly from the drawing files, whenever possible (i.e. no scanned copies).

B. Digital drawing files of the “as-built” infrastructure and GIS attribute information shall be submitted in accordance with Chapter 4.2.

END OF SECTION

SECTION 4.2
GIS DATA FOR PUBLIC IMPROVEMENTS AND PRIVATE RESIDENTIAL IMPROVEMENTS

1. Introduction

The Village utilizes ESRI Geographic Information System (GIS) technology along with other integrated software to share, manage, and keep track of public and private infrastructure assets and data. The Village utilizes GIS as an essential component of an integrated, multi-departmental system to support Village operations.

In order to update and maintain infrastructure GIS asset management data and provide customer service during and after construction, digital GIS data submittals shall be required for all public and private utilities as part of development.

2. Pre-Construction GIS Infrastructure Update

- A. Prior to construction of any public or private water system, storm system, or sanitary system, or other public utility, the Village GIS system must be updated to include the planned utilities.
- B. For the pre-construction GIS update, the design engineer shall provide the electronic design files of the public and private utilities to the Village in acceptable format.

3. As-Built GIS Infrastructure Update

- A. Immediately after construction, surveyed “as-built” infrastructure data shall be provided to the Village in acceptable format. The “as-built” survey data shall include the actual locations of constructed infrastructure.
- B. GIS data shall be accompanied with construction record drawings and a tabular attribute spreadsheet.

4. GIS Data Format Requirements

- A. Acceptable Data Formats.
 - 1) Graphical Data: GIS ESRI shapefiles, coverages, AutoCAD files in .dxf, Microstation files in .dgn file formats.
 - 2) Tabular Data: Excel spreadsheet.
- B. Data Projection.
 - 1) In order to preserve the accuracy of the data, a defined projection shall be required. The required projection is the Wisconsin State Plane South Coordinate System based on the NAD27 Datum.
- C. Accuracy

- 1) All measurements must be in a tolerance of ± 0.1 feet horizontal and ± 0.1 feet vertical.

D. Data Layering and Location

- 1) Each feature listed must be represented as its own layer. The ID (Identification) field in the graphical and tabular data shall match. The ID's will be changed after they are entered into Village's system mapping to avoid duplication in the master system.

Data Features and Layer Naming Conventions:

FEATURE	DATA ELEMENT
General Mapping	
property line(s)	line
right-of-way	line
easement(s)	line
street name(s)	text
topographic contours (proposed)	line
control monuments	point
monument text	text
Sanitary Sewer	
sanitary sewer pipe	line
sanitary sewer pipe text	text
sanitary force main	line
sanitary force main text	text
sanitary manhole	point
sanitary manhole text	text
sanitary services	line
sanitary service text	text
Storm Sewer	
storm sewer pipe / culverts	line
storm sewer pipe text	text
storm manhole	point
storm manhole text	text
storm catch basins	point
storm inlets	point
storm laterals	line
storm lateral text	text
storm water ponds	polygon
flared end section	point
storm sewer outfall	point
swales / ditches	line
Water System	
water main pipe	line
water main pipe text	text
water valves	point
hydrants	point
curb box	point

water service	line
Irrigation System	
irrigation system pipe	line
irrigation valves	point
irrigation controls	point
water service	line
Street Lighting	
light pole	point
light pole text	text
electrical wiring	line
appurtenances (pull boxes, junction boxes, controls etc.)	point
Street Trees	
street tree	point
street tree	text
Street Signs	
street sign	point
street sign	text

E. General Drawing Principles for GIS.

- 1) All polygons type features shall be completely closed.
- 2) Sewer Features:
 - a. All pipe segments between manholes shall be drawn with a single polyline.
 - b. All pipe segments must be snapped at endpoints intersecting at the center of the manhole. No gaps shall exist between pipe segments.
 - c. Sewer manhole(s), endwall(s), and/ or other surface features shall be shown in their true surveyed location.
- 3) Water Features:
 - a. Pipes shall begin and end at designated nodes. Node designations shall conform to the Village's system water model setup.
 - i. Nodes: Tees, crosses, hydrant tees, hydrants, termination plug / cap / valve, pumps or tanks.
 - ii. A preliminary plan mark-up showing planned water main node locations shall be provided to the Village for concurrence prior to completing the drawing or attribute tables.
 - b. Pipes shall be drawn through in-line valves; however valves shall have the ability to be overlaid on the water system, in their true location.

- c. Curves may be digitized with enough vertices to capture the curve geometry, but they shall be single, continuous lines. Curves or arcs may also be used to designate curved pipe.
 - d. Surface features (valves and hydrants) shall be shown in their true surveyed location.
 - e. All water lines shall be continuous with pipe endpoints snapped to each other.
- 4) Irrigation Features:
- a. Pipes shall begin and end at designated nodes.
 - i. Nodes: Tees, crosses, termination plug / cap / valve, and controls.
 - b. Pipes shall be drawn through in-line valves; however valves shall have the ability to be overlaid on the water system, in their true location.
 - c. Curves may be digitized with enough vertices to capture the curve geometry, but they shall be single, continuous lines. Curves or arcs may also be used to designate curved pipe.
 - d. Surface features (valves) shall be shown in their true surveyed location.
 - e. All water lines shall be continuous with pipe endpoints snapped to each other.
- 5) Street Light Features:
- a. Electrical conduit shall begin and end at designated nodes.
 - i. Nodes: Pole(s), pull boxes, controllers, etc.
 - b. Curves may be digitized with enough vertices to capture the curve geometry, but they shall be single, continuous lines. Curves or arcs may also be used to designate curved pipe.
 - c. Surface features (poles, pull boxes, controllers, etc.) shall be shown in their true surveyed location.
 - d. All conduits shall be continuous with pipe endpoints snapped to each other.
- 6) Street Tree Features:
- a. Tree trunks shall be shown in their true surveyed location.
- 7) Street Sign Features:
- a. Signs shall be shown in their true surveyed location.

5. Feature Attribute(s)

- A. The Village utilizes GIS's ability to connect virtual representations of spatial features to information (attributes) relevant to those features. While the number and content of attributes may vary greatly, depending on the source and use of the data, a minimal set of attributes shall be required to allow the data to be used by the Village. Data attributes shall be submitted in a tabular Excel spreadsheet format. The spreadsheet should be provided in an easy to follow format with the following general requirements:
- 1) Tabular identifications shall match the graphical / plan identifications and the Village's identification format.
 - 2) Structure and pipe runs shall be entered in the sheets in the same order.
 - 3) Pipe runs shall be entered in a consistent manner. (i.e. upstream to downstream or vice versa)
 - 4) Pipe invert elevations shall be associated with pipe data attributes not manholes.
- B. **Storm and Sanitary Structures.** (Manholes, catch basins, flared end sections, pipes, culverts, laterals, ponds, storm outfalls).

1) **Manholes**

- a. Structure name (storm manhole, sanitary manhole).
- b. Structure identification.
- c. Location (Street name, easement, etc.).
- d. Location description (i.e. in roadway, in grass, etc.).
- e. Size (i.e. 48-inch, 60-inch, etc.).
- f. Rim elevation.
- g. Depth (Depth from rim to lowest pipe invert measured in feet).
- h. Frame / cover type (i.e. Neenah R-1580 Type "B" lid).
- i. Year constructed.
- j. Acceptance date.
- k. Warranty end date.
- l. Entity of ownership.
- m. Village record drawing number (i.e. A559).
- n. Record drawing sheet number (i.e. A559002).

2) **Catch Basins**

- a. Structure name (catch basin).
- b. Structure identification.
- c. Structure type (curb inlet, yard inlet, inlet).
- d. Location (street name, easement, etc.).
- e. Size (i.e. 2'x3', 48-inch, etc.).
- f. Rim elevation.
- g. Depth (to outlet pipe invert, measured in feet).
- h. Sump depth (i.e. 1-foot).
- i. Frame / grate type.
- j. Year constructed.
- k. Acceptance date.
- l. Warranty end date.
- m. Entity of ownership.
- n. Village record drawing number.
- o. Record drawing sheet number.

3) Flared End Sections

- a. Structure name (flared end section).
- b. Structure identification.
- c. Location.
- d. Description (outlet, inlet).
- e. Size (i.e. 15-inch).
- f. Frame / grate type (i.e. trash rack grate, none).
- g. Year constructed.
- h. Acceptance date.
- i. Warranty end date.

- j. Entity of ownership.
- k. Village record drawing number.
- l. Record drawing sheet number.

4) Storm Sewers and Sanitary Sewers – Pipe data

- a. Structure name (storm pipe, sanitary pipe).
- b. Structure identification.
- c. Upstream structure identification.
- d. Downstream structure identification.
- e. Size (inches).
- f. Length (feet).
- g. Slope (percent).
- h. Upstream invert elevation.
- i. Downstream invert elevation.
- j. Material.
- k. Class pipe.
- l. Year constructed.
- m. Acceptance date.
- n. Warranty end date.
- o. Entity of ownership.
- p. Village record drawing number.
- q. Record drawing sheet number.

5) Storm Culvert Data

- a. Structure name (culvert).
- b. Structure identification.
- c. Description (driveway culvert, road culvert).
- d. Address (used for driveway culverts).

- e. Upstream pipe end (i.e. FES, projecting).
- f. Size (inches).
- g. Length (feet).
- h. Slope (percent).
- i. Upstream invert elevation.
- j. Downstream invert elevation.
- k. Material.
- l. Year constructed.
- m. Acceptance date.
- n. Warranty end date.
- o. Village record drawing number.
- p. Record drawing sheet number.

6) Storm and Sanitary Lateral Data

- a. Structure name (sanitary lateral, storm lateral).
- b. Structure identification.
- c. Service address.
- d. Size (inches).
- e. Material.
- f. Downstream manhole identification.
- g. Distance from downstream manhole (feet).
- h. Length of lateral (feet).
- i. Riser height (for sanitary).
- j. Year constructed.
- k. Acceptance date.
- l. Warranty date.
- m. Entity of ownership.

- n. Village record drawing number.
- o. Record drawing sheet number.

7) **Storm Water Management Ponds**

- a. Structure name (storm water management pond).
- b. Identification.
- c. Type: retention (wet), detention (dry), infiltration.
- d. Location.
- e. Normal water elevation.
- f. Design 100-year water elevation.
- g. Pond bottom elevation.
- h. Year constructed.
- i. Entity of ownership.
- j. Maintenance agreement: (yes , no)

8) **Storm Sewer Outfalls** (*Outfall to waters of the State of Wisconsin, retention/detention pond outlets, or other significant discharges as designated by the Village*)

- a. Structure name (storm outfall).
- b. Structure Identification.
- c. Location.
- d. Location description.
- e. Outfall size.
- f. Outlet device type (i.e. apron endwall, pond outlet – multistage riser, etc.).
- g. WPDES designation (minor outfall, major outfall).
- h. Year constructed.
- i. Acceptance date.
- j. Warranty end date.
- k. Entity of ownership.

- l. Village record drawing number.
 - m. Village record drawing sheet number.
- C. **Water System Data** (nodes, pipes, valves, plug/cap, hydrants, and laterals).

1) **Node Summary**

- a. Structure name (node).
- b. Structure identification.
- c. Node reference description (i.e. tee, hydrant, plug, etc.).
- d. Reference plan station of node.
- e. Node elevation (ground elevation to nearest foot).
- f. Village record drawing number.
- g. Record drawing sheet number.

2) **Water Pipe Data** (mains and hydrant leads)

- a. Structure name (water main, hydrant lead).
- b. Structure identification.
- c. Start node.
- d. End node.
- e. Length (feet).
- f. Diameter (inches).
- g. Pipe material (i.e. PVC, C-900, DR-18).
- h. Pipe roughness coefficient.
- i. Year constructed.
- j. Acceptance date.
- k. Warranty end date.
- l. Entity of ownership.
- m. Village record drawing number.
- n. Record drawing sheet number.

3) **Valve(s)** (main line valves, hydrant valves)

- a. Structure name (valve, hydrant valve).
- b. Structure identification.
- c. Valve type (i.e. BFV, GV).
- d. Valve size.
- e. Manufacturer.
- f. Model number.
- g. Year constructed.
- h. Acceptance date.
- i. Warranty end date.
- j. Entity of ownership.
- k. Village record drawing number.
- l. Record drawing sheet number.

4) **Fire Hydrants**

- a. Structure name (hydrant).
- b. Structure identification.
- c. Manufacturer.
- d. Manufacturer model number.
- e. Screw thread type.
- f. Year constructed.
- g. Acceptance date.
- h. Warranty end date.
- i. Entity of ownership.
- j. Village record drawing number.
- k. Record drawing sheet number.

5) **Water Service Laterals**

- a. Structure name (water service).
- b. Structure identification.
- c. Service address.
- d. Plan station of service.
- e. Size (inch).
- f. Length installed (feet).
- g. Material.
- h. Service valve type (i.e. curb valve etc.).
- i. Service valve manufacturer.
- j. Service valve model number.
- k. Year constructed.
- l. Acceptance date.
- m. Warranty end date.
- n. Entity of ownership.
- o. Village record drawing number.
- p. Record drawing sheet number.

D. Irrigation System Data (nodes, pipes, valves, plug/cap).

1) Node Summary

- a. Structure name (node).
- b. Structure identification.
- c. Node reference description (i.e. tee, plug, etc.).
- d. Village record drawing number.
- e. Record drawing sheet number.

2) Public Irrigation Pipe Data

- a. Structure identification.
- b. Start node.

- c. End node.
- d. Diameter (inches).
- e. Pipe material (i.e. HDPE).
- f. Year constructed.
- g. Acceptance date.
- h. Warranty end date.
- i. Village record drawing number.
- j. Record drawing sheet number.

3) Valve(s)

- a) Structure identification.
- b) Valve size.
- c) Manufacturer.
- d) Model number.
- e) Year constructed.
- f) Acceptance date.
- g) Warranty end date.
- h) Village record drawing number.
- i) Record drawing sheet number.

E. Street Light Data (Poles, conduits, pull boxes, controls).

1) Conduit Data

- a. Structure identification.
- b. Start node.
- c. End node.
- d. Diameter (inches).
- e. Pipe material. (i.e. PVC)
- f. Year constructed.

- g. Acceptance date.
- h. Warranty end date.
- i. Village record drawing number.
- j. Record drawing sheet number.

2) Poles

- a) Structure identification.
- b) Pole height.
- c) Pole manufacturer.
- d) Pole model number.
- e) Fixture manufacturer.
- f) Fixture model number.
- g) Year constructed.
- h) Acceptance date.
- i) Warranty end date.
- j) Village record drawing number.
- k) Record drawing sheet number.

F. Street Tree Data.

1) Tree Data

- a) Tree identification.
- b) Common name.
- c) Botanical Latin name.
- d) Year planted.
- e) Acceptance date.
- f) Warranty end date.
- g) Village record drawing number.
- h) Record drawing sheet number.

G. Street Sign Data.

1) Sign Data

- a) Sign identification.
- b) Sign type “stop, yield, left arrow, etc”.
- c) WDOT sign plate designation.
- d) Sign size.
- e) Year installed.
- f) Acceptance date.
- g) Warranty end date.
- h) Village record drawing number.
- i) Record drawing sheet number.

6. Feature Identification(s)

Feature identification(s) for assets shall conform to the Village’s asset identification naming convention. The typical feature identification(s) naming convention is generally described below.

A. Storm and Sanitary Sewer System.

1) Storm Manhole

Village Record Drawing Numeric Number + STMH + Plan Manhole Number.
Example: 556STMH1

2) Sanitary Manhole

Village Record Drawing Numeric Number + SAMH + Plan Manhole Number.
Example: 556SAMH1

3) Catch Basin

Village Record Drawing Numeric Number + CB + Plan Catch Basin Number.
Example: 556CB1.1

4) Flared End Section

Village Record Drawing Numeric Number + FES + Plan Flared End Section Number.
Example: 556FES1

5) Storm Sewer and Sanitary Sewer Pipe

Upstream Structure ID – Downstream Structure ID

Example(s): 556STMH1-556STMH2; 556CB1.1-556STMH1; 556STMH1 – 556FES1

6) Storm Culvert Data

Village Record Drawing Numeric Number + CULV+ Assigned Plan Culvert Number.

Example: 556CULV1

7) Storm Lateral

STLT - Service Address- Street Name

Example: STLT-5678-85THST

8) Sanitary Lateral

SALT – Service Address – Street Name.

Example: SALT-5678-85THST

9) Storm Water Management Pond

Village Record Drawing Numeric Number + POND + Plan pond number.

Example: 556POND1

10) Storm Sewer Outfall

Village Record Drawing Numeric Number + OUTFALL -Structure Number.

Example: 556OUTFALL-FES1

B. Water System.

1) Nodes

Village Record Drawing Numeric Number + N + Assigned Node Number.

Example: 556N1

2) Water Main and Hydrant Lead Pipes

Upstream Node ID - Downstream Node ID (In direction of flow, if applicable)

Example: 556N1–556N2

3) Valves (main)

Village Record Drawing Numeric Number + V + Assigned Plan Valve Number.

Example: 556V1

4) Valves (hydrant)

Village Record Drawing Numeric Number +HV + Assigned Valve Number
(corresponding to hydrant number)

Example: 556HV1

5) Water Service Laterals

WSRV – Street Address – Street Name.

Example: WSRV -5679-85THST

C. Public Irrigation System.

1) Nodes

Village Record Drawing Numeric Number + N + Assigned Node Number.

Example: 556N1

2) Pipes

Upstream Irrigation Node ID - Downstream Irrigation Node ID (In direction of flow, if applicable)

Example: 556IN1–556IN2

3) Valves

Village Record Drawing Numeric Number + IV + Assigned Plan Valve Number.

Example: 556IV1

4) Controls

Village Record Drawing Numeric Number +IC + Assigned Controller Number

Example: 556IC1

D. Street Light System.

1) Conduits

Start Conduit Node ID – End Conduit Node ID

Example: 556CN1–556CN2

2) Poles

Village Record Drawing Numeric Number + LP + Assigned Plan Pole Number.

Example: 556LP1

3) Pull Boxes

Village Record Drawing Numeric Number +PB + Assigned Pull Box Number

Example: 556PB1

4) Controls

Village Record Drawing Numeric Number +LC + Assigned Control Number

Example: 556LC1

END OF SECTION

SECTION 5
VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS

TABLE OF CONTENTS

VS-0100	General Terms and Conditions
VS-0200	Sanitary Sewer
VS-0300	Storm Sewer
VS-0400	Water Main
VS-0500	Roadway and Sidewalk
VS-0600	Tracer Wire
VS-0601	Backfilling Utility Trenches
VS-0602	Site Restoration and Surface Replacement
VS-0603	Manhole and Valve Adjustments (Existing Utilities)
VS-0700	Street Trees
VS-0800	Street Lights

**VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS
VS-0100 GENERAL TERMS AND CONDITIONS**

1.0 Section Description

- A. Basic description of general terms and conditions for public improvement project construction.

2.0 Definitions of Parties

- A. Village: The “Village” or “Owner” is the Village of Pleasant Prairie also including their representative consulting engineers.
- B. Developer: The “Developer” is the company, person, or organization developing the project. The “Developer” shall be the same identification in the Developer’s Agreement with the Village.
- C. Engineer: The “Design Engineer” is the Engineer of Record for the project consisting of the company or organization who prepared the construction engineering plans.
- D. Contractor: The “Contractor” is the company hired by the Developer or Village to construct the improvements as identified in the construction engineering plans and the Developer’s Agreement.

3.0 Preliminary Matters

- A. Construction plans must be reviewed and approved by the Village prior to construction commencement. Although plans are reviewed by the Village, it does not relieve the Developer from compliance of Village Ordinances or these standard construction specifications. Should there be a discrepancy between plans and these construction standards, the construction standards shall govern unless otherwise approved or specified by the Village.
- B. All required easement(s), licenses, and/or local, county, State, and federal permits must be obtained prior to construction commencement.
- C. Contractors shall comply with Chapter 150 of the Village Municipal Code “Contractor Qualification Ordinance of the Village of Pleasant Prairie” requiring pre-qualification of Contractors prior to obtaining bidding documents or submitting bids or acting as contractor or subcontractor on any public improvement project.
- D. Prior to construction commencement, a pre-construction conference must be held at the Village Offices. The pre-construction conference shall be scheduled and moderated by the Design Engineer.
- E. The Contractor shall have a complete set of the village approved plans and specifications at the project site at all times. Specifications shall include:

- (1) Village of Pleasant Prairie Standard Construction Specifications.

- (2) “Standard Specifications” for Sewer and Water Construction in Wisconsin”, if applicable.
- (3) “State Specifications”; and
- (4) Other documents pertaining to the project.

4.0 Specifications

A. Utility Construction

- (1) The “Standard Specifications for Sewer and Water Construction in Wisconsin”, current edition and addendums, will govern all utility work performed on this project and hereinafter will be referred to as the “Standard Specifications”.
 - a. Part I, General Conditions, from the “Standard Specifications” are not applicable to Village Construction.

B. Road Construction

- (1) The State of Wisconsin, Department of Transportation, “Standard Specifications for Highway and Structure Construction”, current edition, and all “Interim Supplemental Specifications”; will govern all road work performed on this project and hereinafter will be referred to as the “State Specifications”.
 - a. Part I, General Requirements and Covenants, from the “State Specifications” are not applicable to Village Construction projects, except those sections specifically referenced in these contract documents.
 - b. All references to the “Department” or “State” (The “Department” of Transportation of the “State” of Wisconsin) shall be interpreted to mean the Owner.
 - c. All references to metric unit(s) shall be converted to their nearest whole equivalent Standard unit(s) (U.S. Standard) in accordance with the conversion tables shown in the Appendix of the “State Specifications”.

C. Village of Pleasant Prairie Standard Construction Specifications

- (1) The Village of Pleasant Prairie Standard Construction Specifications will govern all utility and road work performed on this project and hereinafter will be referred to as “Village Specifications”. In the event of a discrepancy between these “Village Specifications” and either the “Standard Specifications” or the “State Specifications”, these “Village Specifications” shall govern.

5.0 Alternate Materials

- A. The Contractor may furnish alternate materials in place of those specified in these Village Specifications where “or equal” is stated and when the following provisions have been complied with.

“If the Contractor wishes to substitute an alternative material as an “equal” to the material specified, he shall first submit a detailed description of such to the Village for their review and approval/disapproval. The Contractor shall not install any alternate materials prior to receiving approval for their use. Only those materials listed in these Village Specifications or approved as alternates shall be used on this project.”

6.0 Regulatory Requirements

A. Permits / Licenses

- (1) Contractor shall have a copy and be familiar with all permits / licenses and their respective provisions. All work requiring permits or licenses shall abide by the governing permit / license provisions where they exceed the requirements in these specifications.
- (2) Contractor shall obtain and provide a copy to the Village all permits that are associated with specific construction methods or circumstances that were not obtained through the plan approval process. These may include but are not limited to WDNR well permits, offsite construction easement agreements made by Contractor or Developer, off-site disposal permits, etc.
- (3) Spoil Disposal within Village Boundary
 - a. The Contractor shall provide the Village with the location(s) of all spoil disposal sites within the Village, prior to construction. No disposal of materials within the Village shall occur unless a Village Land Disturbance Permit and/or other required Village, County, State or Federal approvals have been obtained for the specific disposal site. The Contractor will be responsible for removing spoil and restoring any site(s) that are used for improper disposal of spoil material.

B. Compliance with Laws, Safety, Means and Methods

- (1) The Contractor, his subcontractors, agents and employees, shall at all times, observe and comply with all Federal and State Laws, ordinances, codes and regulations which in any manner affect the conduct of the work.
- (2) The Contractor shall be responsible for compliance with all Federal, State, and local laws, including OSHA Standards, and with any other applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety or persons or property or to protect them from damage, injury or loss. The Contractor shall provide all safeguards, safety devices and protective equipment and shall be responsible for initiating, maintaining and supervising all safety precautions and programs utilized by the Contractor and his sub-contractors in the performance of their work and shall take any other actions necessary to protect the life and health of employees on the job and safety of the public and to protect property in connection with the performance of work on this project.

- (3) The contractor shall be responsible for the construction means, methods, techniques or procedures, equipment, and for safety precautions or programs, unless such means and equipment are specified in these Village Specifications.

7.0 Notification of Utilities

A. Utility Location and Coordination.

- (1) The locations of utilities shown on the Plans are from existing record(s) and/or field locations and may not be complete or accurate. The Contractor shall contact Digger's Hotline at (800) 242-8511, as well as other utilities not served by Digger's Hotline but having facilities in the work area, at least three (3) full business days prior to construction to notify the utilities to locate their underground facilities.

B. Utility Protection

- (1) It shall be the responsibility of the Contractor to protect all utilities that are encountered in his work operations. The Contractor shall contact utilities to determine their procedure and schedule for supporting and/or relocating utilities and shall notify any above ground utility such as electric and telephone companies to relocate or reinforce any poles, ties or anchors which may be on or near the line of the proposed utility or weakened by excavation for the proposed utility or within road construction grading limits.

END OF SECTION

**VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS
VS-0200 SANITARY SEWER**

1.0 Section Description

A. This section includes requirements for sanitary sewer materials and construction.

B. Related Sections Include:

- (1) Section VS-0100 General Terms and Conditions
- (2) Section VS-0600 Tracer Wire
- (3) Section VS-0601 Backfilling Utility Trenches
- (4) Standard Details

2.0 Sanitary Sewer Pipe and Lateral Materials

A. Sanitary sewer pipe material shall be polyvinyl chloride (PVC). Pipe shall conform to the following:

- (1) Polyvinyl Chloride (PVC) sewer pipe, 4 inch through 15 inch diameter, meeting the requirements of ASTM D3034, SDR-35 (unless loading requires a stronger pipe), with a minimum pipe stiffness of 46 psi or SDR-26 with a minimum pipe stiffness of 115 psi, and having integral bell type flexible elastomeric joints meeting the requirements of ASTM D3212. Gaskets shall meet the requirements of ASTM F477. PVC material shall have a cell classification of 12454B, 12454C, 12364C or 13364B, except that 12364C and 13364B shall have a minimum modulus of elasticity of 500,000 psi.
- (2) Polyvinyl Chloride (PVC) large diameter solid wall sewer pipe (18-inch to 27-inch) meeting the requirements of ASTM F679, wall thickness T-1 (SDR 35), with a minimum pipe stiffness of 46 psi and having integral bell type flexible elastomeric joints meeting the requirements of ASTM D3212. Gaskets shall meet the requirements of ASTM F477. PVC material shall have a minimum cell classification of 12454C or 12364C and a minimum modulus of elasticity of 500,000 psi. Lateral pipe material shall conform to the requirements of Paragraph 1 above.

B. Well Protection

- (1) Sanitary sewer pipe material located within 25 to 50 feet of private wells, shall be Polyvinyl Chloride (PVC) pressure pipe conforming to AWWA C-900, Class 150, DR-18, or AWWA C905, P.R. 235, SDR-18, with integral elastomeric bell and spigot joints or alternate materials approved by the Village of Pleasant Prairie and the Wisconsin Department of Natural Resources.
 - a. Main line wye and tee connections shall be pressure pipe, but laterals and risers may be constructed of gravity sewer pipe materials.

C. Substitute Materials

- (1) Substitute sewer pipe materials proposed to be used due to loading, special project circumstances, design considerations, or as an "equal" shall be submitted to the

Village Engineer for review and approval or disapproval prior to their use. Contractor shall not install any substitute materials prior to receiving written approval for their use.

3.0 Sanitary Laterals

- A. Install sewer laterals at a typical 2.08% (1/4-inch per foot) grade unless otherwise approved by the Village. Minimum lateral grade is 1.04% (1/8-inch per foot).
- B. All laterals exceeding 100-feet in length shall have cleanouts installed on them. Cleanouts shall be placed at 100-foot maximum spacing or as directed / approved by the Village.
- C. Lateral(s) shall be installed by boring under existing pavement or shoulder areas, unless otherwise approved by the Village.
- D. Place lateral(s) outside existing or future driveways.
- E. Lateral connections.
 - (1) Lateral connections to sewer mains 18-inches in diameter or less at the time of construction shall be made with wyes.
 - (2) Lateral connections to existing sewers shall be made with INSERTA-TEE brand three-piece service connection or pre-approved equal. The service connection shall include a PVC hub conforming to the requirements of ASTM D3034-SDR 26, rubber sleeve conforming to ASTM C477, and stainless steel band.
- F. Risers (Shallow Sewers)
 - (1) Use the following methods for constructing risers up to 6 feet in height and/or for mains not exceeding 16 feet in depth measured from the flow line of the sewer.
 - a. Sewer main 8-inches through 18-inches diameter.
 - i. Risers on shallow sewer mains shall be constructed of PVC gravity sewer pipe in accordance with File No. 10E of the "Standard Specifications".
 - ii. Riser connections shall be made with factory fabricated or injection molded in-line tees. Do not use saddles for riser connections.
 - b. Sewer main 21-inch diameter and larger.
 - i. Risers on shallow gravity sewer shall be connected to the main with INSERTA-TEE brand three-piece service connection or approved equal. The service connection shall include a PVC hub conforming to the requirements of ASTM D3034-SDR 26, rubber sleeve conforming to ASTM C477, and stainless steel band. Refer to Village standard details.
- G. Risers (Deep Sewers)

- (1) Use the following methods for constructing risers greater than 6-feet in height and/or for mains exceeding 16-feet in depth measured from the flow line of the sewer.
 - a. Risers on deep gravity sewer mains shall be constructed of PVC sewer, ASTM 3034-SDR 26, encased within a corrugated polyethylene drainage tubing conforming to ASTM F405 in accordance with Village standard details.
 - i. On sewer sizes 8-inches through 18-inches, riser connections shall be made with factory fabricated or injection molded in-line tees. The use of saddles is not allowed. Refer to Village standard details.
 - ii. On sewers 21-inches in diameter and larger, riser connections shall be made with INSERTA-TEE brand service connection or approved equal. The service connection shall include a PVC hub conforming to the requirements of ASTM D3034-SDR 26, rubber sleeve conforming to ASTM C477 and stainless steel band. Refer to Village standard details.

H. Marker Stakes

- (1) Marker stakes shall be installed over the end of each lateral installed. The marker shall be a minimum of 2"x4" hardwood plank. The marker shall be placed vertically with its top 2-feet above finished surface grade. The bottom of the stake shall be extended to the top of pipe at the cap location.

4.0 Sanitary Manholes

A. Standard Manhole

- (1) Sanitary manholes shall be constructed in accordance with Chapter 3.5.0 and File No. 12, 12A, 13, and 15 of the "Standard Specifications" and these Village Specifications.
- (2) All manhole bases (benches) shall be poured in place in accordance with Subsection 3.5.5(b) of the "Standard Specifications". Precast manhole bases or precast integral base units are allowed in accordance with Subsection 3.5.5(c), however, no precast base units with preformed benches are allowed on sanitary sewer relay projects or other situations which may require field changes in the designed drop between pipes within the manhole.
- (3) Manholes shall be precast 48-inch inside diameter with eccentric cones.
- (4) Manhole frames and covers shall be Neenah R-1580 with Type "B" self-sealing lids, non-rocking, or equal. Manhole frames shall be centered on the top of the cone.
- (5) Manhole step placement shall be such that the first step is located a maximum distance of 18-inches from the manhole rim. Steps shall not be placed within adjusting rings.

- (6) Manhole adjusting rings may be used to bring manhole rims to grade. Adjusting ring heights are limited based on the maximum distance from the first stair to the rim, per requirements above. In all cases, manholes shall not have a ring height less than 3-inches or greater than 8-inches. The inside diameter of the adjusting rings shall match that of the opening in the manhole flat cover or eccentric cone.
- (7) Adjusting rings shall be one of the following:
- a. Concrete rings with one line of steel centered within the ring. Adjusting rings shall be set with butyl rubber sealant troweled into a 1/4 inch thick layer over the entire mating surface of the top of cone and all adjusting rings. Contractor shall take care to prevent the butyl rubber sealant from getting on the interior surface of the rings within the chimney. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade or equal.
 - b. High Density Polyethylene (HDPE) adjusting rings as manufactured by Ladtech, Inc., Lino Lakes, Minnesota, or approved equal. HDPE adjusting rings shall be installed per the manufacturer's recommendations and instructions.
 - c. Expanded Polypropylene adjusting rings (Pro-Ring) as manufactured by Cretex Specialty Products, Waukesha, Wisconsin, or approved equal. Polypropylene adjusting rings shall be installed per the manufacturer's recommendations and instructions.
- (8) The top of manhole castings shall be set 1/4 inch below the newly finished asphalt surfaces, finished grade of concrete pavement, or elevations per the plan within grass or lawn areas. Casting shall be placed at the same slope as the adjacent finished surface. Manhole frames shall be set with butyl rubber sealant troweled into a 1/4 inch thick layer over the entire mating surface of the frames and adjusting rings. Contractor shall take care to prevent the butyl rubber sealant from getting on the interior surface of the rings and frame within the chimney. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade or equal.
- (9) Manhole lifting holes. All lifting holes in precast manhole sections shall be plugged using rubber plugs supplied by the manhole supplier, non-shrink grout or other approved method. Non-shrink grout shall fill the entire void and shall be troweled at each face to provide smooth surfaces. Cement mortar shall not be used to plug lifting holes.
- (10) Manhole Riser Joints. Joints for precast manhole riser sections shall be made with rubber "O"-ring gaskets, a continuous ring of butyl rubber sealant (EZ-Stick or Kent-Seal in rope form) or equal. The butyl sealant shall be 1-inch diameter equivalent or as recommended by the manhole manufacturer.
- a. An external sealing wrap shall be placed at all joints between pre-cast manhole sections. The external sealing wrap shall meet, or exceed, the requirements of ASTM C-877, Type III. External joint seals shall be EZ-WRAP, as manufactured by Press-Seal Gasket Corporation, or pre-approved equal.
- (11) Chimney Seal

- a. An external sealing wrap shall be placed on the entire manhole chimney from the casting to the 6-inches below the top of the manhole cone section and installed in accordance with the manufacturer's instructions. The external sealing wrap shall be EZ-WRAP, as manufactured by Press-Seal Gasket Corporation, or approved equal.

B. Sampling Manhole

- (1) Sampling manholes shall meet the specifications of a Standard Sanitary Manhole with the following additional provisions. (Refer to Village standard sampling manhole detail)
 - a. A primary flow measuring device shall be installed. The primary flow measuring device shall be a Palmer-Bowlus flume with integral approach section. Flume sizes shall be based upon the lateral pipe size and shall be installed per manufactures specifications and tolerances. Flumes shall be manufactured by Plasti-Fab, Ken Co Plastics, or pre-approved equal.
 - b. No horizontal alignment changes are allowed at the sampling manhole.
 - c. No pipe joints within 4-feet of the manhole exterior.
 - d. Sampling manhole shall be located to allow easy access for Village utility crews and shall be within pavement areas but not in parking stalls.
 - e. Contractor is directed to pay special attention to the stairs as shown in the Village standard detail:
 - i. The maximum distance from the rim to the first stair is 18-inches.
 - ii. A minimum of 19-inches horizontal clearance is required at the opening from the step.

C. Drop Manhole

- (1) Drop manholes shall be constructed in accordance with Section 3.5.8(d), File No. 19 or 20 of the "Standard Specifications" and the requirements of these Village Specifications.

D. Waterproof Manhole

- (1) Waterproof manholes shall be constructed the same as a standard manhole except that they shall be furnished with waterproof frames and lids.
 - a. Waterproof frames and lids shall be Neenah R-1755-C with Type "C" lid or pre-approved equal.

5.0 Bedding and Cover

- A. Sanitary sewer bedding and cover material shall conform to the appropriate sections of the “Standard Specifications”, as specified and/or modified below:
- (1) PVC Pipe – Sections 3.2.6(i), as modified below (Note that the bedding section is essentially Class “B” Bedding including placing a minimum of 12-inches of cover material over the top of the pipe.):
 - a. Crushed pea gravel will not be allowed for use as bedding material. Cover material shall be the same material as for bedding and shall conform to Section 8.43.2(a).
 - b. Delete the following sentence from Paragraph 3.2.6(b)2. and 3.2.6(i)1.:

“If crushed stone chips or other material conforming to Section 8.43.2(a) are used as cover material, no compaction or staging is required.”
 - c. Place bedding material to the springline of the pipe and compact prior to placing cover material. Compaction of bedding material at the level of the pipe springline shall include working bedding material under the haunches of the pipe using shovels or other suitable means. The Contractor shall take care to completely work bedding material under the haunches of the pipe to provide adequate side support.
 - d. Place and compact cover material in one or more lifts after compacting bedding material. Place a minimum of 12-inches of cover material over the pipe.

6.0 Connection to Existing Sewers and Manholes

A. Sewer Stub Connections

- (1) Sewer connections to existing sewer stubs of different type of material or joint shall be made with a pre-approved watertight adaptor.

B. Manhole Pipe Connections

- (1) Connections of pipes to manholes shall be made in accordance with Section 3.5.7 of the “Standard Specifications”. All field tapped holes for connecting sewer pipe to manholes shall be made by coring.
- (2) All plastic pipe shall be connected to manholes by means of flexible watertight pipe to manhole seals in accordance with Subsection 3.5.7(c). Manhole seals shall be Kor-N-Seal, Link Seal or pre-approved equal. All clamps, bolts, etc. of pipe to manhole seals shall be stainless steel. If Link Seal connectors are used, the bolt heads shall be placed on the inside of manholes.

C. Plug Downstream Manhole

- (1) Place temporary plugs in all downstream (receiving) manholes to prevent groundwater and debris from entering the existing sewer system. Plugs shall remain in place until authorized to be removed by the Village.

7.0 Field Tiles

- A. Tile lines crossed by the trench shall be replaced with polyvinyl chloride (PVC) sewer pipe meeting the requirements of ASTM D-3034, SDR-35, with rubber gasket joints. The PVC pipe shall be extended for a minimum distance of 2-feet outside the edge of the undisturbed trench wall. The tile to PVC pipe connection shall be made with compatible fittings, adaptors, or encased in concrete. The size of the new PVC pipe shall be equal or greater than the field tile it is connected to.
- B. Damaged field tile shall be repaired the same day as the damage occurs so that flow of water will not be unreasonably restricted.
- C. Tile lines shall not be connected to the sanitary sewer system.

8.0 Pipe Flotation

- A. Pipes installed below the groundwater elevation shall be protected against flotation. The Contractor shall lower the groundwater elevation until after adequate cover has been placed to secure pipes.

9.0 Insulation

- A. Sewer lines shall be insulated wherever the depth of cover is less than five (5) feet and where noted on plans. Insulation shall be in accordance with Chapter 4.17.0 of the "Standard Specifications".

10.0 Tracer Wire

- A. Tracer wire shall be installed with all underground sanitary sewer systems in accordance with Village Specifications VS-0600 "Tracer Wire".

11.0 Testing and Inspection

- A. Deflection Testing
 - (1) Polyvinyl chloride (PVC) sewer pipe shall be deflection tested with an approved go-no-go acceptance testing device. The test shall not be conducted until after all backfill has been placed and consolidated and after riser pipes and sewer laterals have been installed. The entire length of the sewer pipe shall be tested.
 - (2) PVC pipe shall not be deflection tested until at least 14 days after all backfill has been placed, including backfilling of laterals and risers. Initial deflection testing shall be done using a 95% mandrel.
 - (3) All sections failing to pass the test shall be repaired and retested, however, if at least 30 days have elapsed since the pipe was repaired and backfilled, the Contractor will be allowed to retest the sewer lining using a 92.5% mandrel.
- B. Leakage Testing

- (1) Low Pressure Air Test. Amend Paragraph 3.7.1 of the “Standard Specifications” to read in part: “Sanitary sewers less than or equal to 36-inches in diameter shall be tested for leakage using the low pressure air test. The length of laterals included in the test section shall be included in determining the test time”.

C. Sewer Stub Inspection

- (1) All sewer stubs shall be visually inspected by the Contractor by lamping. Long sewer stubs shall be lamped from both ends of the pipe as required.
- (2) The pipe shall be inspected for leakage, excessive deflection, offset joints, or any other unacceptable conditions. All leaking joints and other defects shall be corrected.
- (3) Contractor may test existing stub(s) for leakage and deflection to insure that defects in the existing stub do not adversely affect the testing of new adjoining sewer. Note that existing stubs will be tested with the new sewer when the new line is tested.

D. Televising Sewers

- (1) All sewers lines will be televised by the Village after they have successfully passed deflection and leakage testing and after forming manhole flowlines and benches prior to acceptance of the work.
 - a. Contractor shall clean all sewers and manholes prior to televising.
- (4) All defects identified by the televising inspection shall be corrected and any dirt, gravel or foreign material removed from the sewer prior to acceptance by the Village. All lines that were either repaired or cleaned shall be re-televised by the Village.
- (5) Sewers shall be re-televised near the end of the 1-year warranty period. All defects identified by the warranty period televising shall be corrected. All lines that were repaired shall be re-televised by the Village.
- (6) All televising and re-televising of sewers by the Village is at the Developer’s cost.

E. Manhole Vacuum Testing

- (1) The Contractor shall vacuum test all sanitary manholes for leakage, regardless of the sewer diameter, in accordance with Subsection 3.7.6 of the “Standard Specifications”. Any manholes that fail the vacuum test shall be repaired and retested.
- (2) Amend subsection 3.7.6 to include the following: “The chimney and casting shall be in place before vacuum testing manholes.”

F. Manhole Infiltration Inspection

- (1) The Contractor, accompanied by the Village, shall re-inspect all manholes approximately one (1) year after completing work or as directed by the Village prior

to the end of the warranty / correction period to check for manhole infiltration and to observe the general condition of the manhole. All active or flowing leaks and any other necessary repairs shall be corrected prior to final acceptance of the work.

END OF SECTION

**VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS
VS-0300 STORM SEWER**

1.0 Section Description

A. This section includes requirements for storm sewer materials and construction.

B. Related Sections Include:

- (1) Section VS-0100 General Terms and Conditions
- (2) Section VS-0600 Tracer Wire
- (3) Section VS-0601 Backfilling Utility Trenches
- (4) Standard Details

2.0 Storm Sewer Pipe and Materials

A. Storm sewer pipe material shall be as indicated on official approved plans conforming to the following:

- (1) Reinforced concrete sewer pipe (RCP) meeting the requirements of ASTM C-76 with mortar or rubber gasket joints conforming to ASTM C-443.

a. RCP shall be furnished for classes of pipe shown on the plans.

- (2) Reinforced concrete horizontal elliptical sewer pipe (RCHEP) meeting the requirements of ASTM C-507 with mortar or rubber gasket joints conforming to ASTM C-443.

a. RCHEP shall be furnished for the classes of pipe shown on the Plans.

- (3) High Density Polyethylene Pipe (HDPE) with corrugated exterior and smooth interior and provided with watertight bell and spigot joints with rubber gaskets. 4-inch through 10-inch diameter pipes shall meet the requirements of AASHTO M-252 and 12-inch through 36-inch diameter pipes shall meet the requirements of AASHTO M-294, Type S.

a. HDPE pipe shall be ADS N-12 "ST IB (soiltight) Pipe" as manufactured by Advanced Drainage Systems, Inc. of Columbus Ohio; or Hancor "Sure-Lok ST" as manufactured by Hancor, Inc., of Findlay, Ohio.

b. End sections used with HDPE pipe shall be reinforced concrete apron endwalls.

c. HDPE pipes shall only be installed in locations, as pre-approved by the Village.

d. Pipes indicated as RCP on Village approved plans may not be HDPE, unless approved by the Village, in writing.

3.0 Sump Pump Laterals

- A. Sump pump laterals shall be installed at locations as approved by the Village. Laterals shall be constructed adjacent to and left of the water service wherever possible.
- B. Sump pump laterals shall be 42-inches deep wherever possible.
- C. Sump pump laterals shall be 4-inch PVC meeting the requirements of ASTM D3034, SDR-26, with integral bell type flexible elastomeric joints meeting ASTM D-3212.
- D. Sump pump laterals shall extend to the right-of-way line and shall be constructed without vertical breaks or bends.
- E. Sump pump laterals shall be connected to the storm sewer by a precast tee or cored rubber boot.
- F. Minimum lateral grade is 1.04% (1/8-inch per foot).
- G. Laterals stubs shall be capped at the lot line. Marker stakes shall be installed over the end of each lateral installed. The marker shall be a minimum of 2"x4" hardwood plank. The marker shall be placed vertically with its top 2-feet above finished surface grade. The bottom of the stake should be extended to the top pipe at the cap location.
- H. All laterals exceeding 100-feet in length shall have cleanouts installed on them. Cleanouts shall be placed at 100-foot maximum spacing or as directed / approved by the Village.

4.0 Storm Manhole

A. Standard Manhole

- (1) Storm sewer manholes shall be constructed in accordance with Chapter 3.5.0 and File Nos. 12, 13, and 15 of the "Standard Specifications" and these Village Specifications.
- (2) All manhole bases (benches) shall be poured in place in accordance with Subsection 3.5.5(b) of the "Standard Specifications". Precast manhole bases or precast integral base units are allowed, however, no precast base units with preformed benches are allowed. All manhole benches shall be poured in place.
- (3) Manholes shall be precast with eccentric cones. Flat top slabs with offset openings may be used for shallow manholes where there is not sufficient depth to install cones.
- (4) Manhole steps shall be OSHA approved and fabricated using 3/8-inch minimum diameter steel grade 60 reinforcing rod with molded plastic covering. Manholes less than 4-feet deep do not require steps.
- (5) Manhole frames and covers.

- a. Manhole frames and covers shall be Neenah R-1580 with Type "B" self-sealing lids, non-rocking.
 - b. Manhole frames shall be centered on the top of the cone section.
 - c. The top of manhole castings shall be set 1/4 inch below the newly finished asphalt surfaces, finished grade of concrete pavement, or elevations per the plan within grass or lawn areas. Casting shall be placed at the same slope as the adjacent finished surface. Manhole frames shall be set with butyl rubber sealant troweled into a 1/4 inch thick layer over the entire mating surface of the frames and adjusting rings. Contractor shall take care to prevent the butyl rubber sealant from getting on the interior surface of the rings and frame within the chimney. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade or equal.
- (6) Manhole step placement shall be such that the first step is located a maximum distance of 18-inches from the manhole rim. Steps shall not be placed within adjusting rings.
 - (7) Manhole adjusting rings may be used to bring manhole rims to grade. Adjusting ring heights are limited based on the maximum distance from the first stair to the rim, per requirements above. In all cases, manholes shall not have a ring height less than 3-inches or greater than 8-inches. The inside diameter of the adjusting rings shall match that of the opening in the manhole flat cover or eccentric cone.
 - (8) Adjusting rings shall be one of the following:
 - a. Concrete rings with one line of steel centered within the ring. Adjusting rings shall be set with butyl rubber sealant troweled into a 1/4 inch thick layer over the entire mating surface of the top of cone and all adjusting rings. Contractor shall take care to prevent the butyl rubber sealant from getting on the interior surface of the rings within the chimney. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade or equal.
 - b. High Density Polyethylene (HDPE) adjusting rings as manufactured by Ladtech, Inc., Lino Lakes, Minnesota, or approved equal. HDPE adjusting rings shall be installed per the manufactures recommendations and instructions.
 - c. Expanded Polypropylene adjusting rings (Pro-Ring) as manufactured by Cretex Specialty Products, Waukesha, Wisconsin, or approved equal. Polypropylene adjusting rings shall be installed per the manufactures recommendations and instructions.
 - (9) Manhole lifting holes. All lifting holes in precast manhole sections shall be plugged using rubber plugs supplied by the manhole supplier, non-shrink grout or other approved method. Non-shrink grout shall fill the entire void and shall be troweled at each face to provide smooth surfaces. Cement mortar shall not be used to plug lifting holes.

(10) Manhole Riser Joints. Joints for precast manhole riser sections shall be made with rubber "O"-ring gaskets, a continuous ring of butyl rubber sealant (EZ-Stick or Kent-Seal in rope form) or equal. The butyl sealant shall be 1-inch diameter equivalent or as recommended by the manhole manufacturer.

a. An external sealing wrap shall be placed at all joints between pre-cast manhole sections. The external sealing wrap shall meet, or exceed, the requirements of ASTM C-877, Type III. External joint seals shall be EZ-WRAP, as manufactured by Press-Seal Gasket Corporation, or pre-approved equal.

(11) Chimney Seal.

a. An external sealing wrap shall be placed on the entire manhole chimney from the casting to the 6-inches below the top of the manhole cone section and installed in accordance with the manufacturer's instructions. The external sealing wrap shall be EZ-WRAP, as manufactured by Press-Seal Gasket Corporation, or approved equal.

B. Inlet Manhole

(1) Inlet manholes shall be constructed in accordance with the provisions of a Standard Manhole except as provided below.

a. For curb inlet manholes use flat top slabs with opening. Sizes shall match specified frame and grate.

(2) Frame and Covers

a. Beehive grate manhole covers shall be Neenah R-2560-E1 or equal.

b. Neenah R-3067-L (barrier curb).

c. Neenah R-3501-R (roll curb).

(3) Inlet manholes shall not have sumps.

C. Tee-Line Manholes

(1) Tee-line manholes shall be constructed in accordance with File No. 16 of the "Standard Specifications" and the pertinent provisions included in the Standard Manhole subsection above.

D. Junction Box Manholes

(1) Junction box manholes shall be constructed in accordance with details included in the plans and pertinent provisions included in the Standard Manhole subsection above. Junction box details must be in plans which are approved by the Village Engineer for the project.

5.0 Catch Basin

- A. Catch basins shall be constructed in accordance with the Village standard catch basin details.
- B. Catch basins shall be precast, unless otherwise approved by the Village.
- C. Round catch basins greater than 3-feet in depth, measured from the inlet flow line to the bottom of the sump, shall be provided with steps in accordance with Section 4.0 Storm Manhole of these specifications.
- D. Chimney Seal
 - (1) An external sealing wrap shall be placed on the entire manhole chimney from the casting to the 6-inches below the top of the manhole cone section and installed in accordance with the manufacturer's instructions. The external sealing wrap shall be EZ-WRAP, as manufactured by Press-Seal Gasket Corporation, or approved equal.

6.0 Bedding and Cover

- A. Storm sewer bedding and cover material shall conform to appropriate sections of the "Standard Specifications", as specified or modified below. Unless otherwise approved by the Village Engineer, Class "B" Bedding shall be used.
 - (1) Class "B" Bedding shall conform to File No.4 and paragraph 3.2.6(b)(concrete pipe) or paragraph 3.2.6(i) (PVC and HDPE) of the "Standard Specifications", as modified below.
 - a. Crushed pea gravel will not be allowed for use as bedding material. Cover material shall be the same material as for bedding and shall conform to Section 8.43.2(a).
 - b. Delete the following sentence from Paragraph 3.2.6(b)2. and 3.2.6(i)1.:

"If crushed stone chips or other material conforming to Section 8.43.2(a) are used as cover material, no compaction or staging is required."
 - c. Place bedding material to the springline of the pipe and compact prior to placing cover material. Compaction of bedding material at the level of the pipe springline shall include working bedding material under the haunches of the pipe using shovels or other suitable means. The Contractor shall take care to completely work bedding material under the haunches of the pipe to provide adequate side support.
 - d. Place and compact cover material in one or more lifts after compacting bedding material. Place a minimum of 12-inches of cover material over the pipe.

7.0 Manhole / Catch Basin Pipe Connections

- A. Connections of pipes to manholes and catch basins shall be made in accordance with Section 3.5.7 of the “Standard Specifications”, as modified below. All field tapped holes for connecting sewer pipe to manholes shall be made by coring.
 - (1) Rigid Pipe. Reinforced concrete pipe shall be connected by means of brick and mortar per Subsection 3.5.7(a)1.b.
 - (2) Flexible Pipe. Corrugated polyethylene pipe (HDPE) and polyvinyl chloride pipe (PVC) shall be connected by either an approved flexible pipe to manhole seal or by means of brick and mortar per Subsection 3.5.7(a)1.b. Install a rubber gasket around the pipe, centered on the manhole or catch basin wall, when forming mortared connections.

8.0 Field Tile Connections

- A. All field tile(s) encountered during the construction shall be connected to the new storm sewer, unless otherwise directed by the Village to make reconnection repairs only.
- B. Tile lines crossed by the trench shall be replaced with polyvinyl chloride (PVC) sewer pipe meeting the requirements of ASTM D-3034, SDR-35, with rubber gasket joints. The PVC pipe shall be extended for a minimum distance of 2-feet outside the edge of the undisturbed trench wall. The tile to PVC pipe connection shall be made with compatible fittings, adaptors, or encased in concrete. The size of the new PVC pipe shall be equal or greater than the field tile it is connected to. Connections to storm sewers shall be cored.
- C. Damaged field tile shall be repaired the same day as the damage occurs so that flow of water will not be unreasonably restricted.
- D. Damaged tile shall be connected to new storm sewers wherever possible.

9.0 Pipe Joint Restraint (Outfalls)

- A. Secure the last two pipe sections, including end sections, at all storm sewer outfalls (discharge points) using joint ties.

10.0 Tracer Wire

- A. Tracer wire shall be installed with all underground sewer systems which cannot be identified by surface structures in accordance with Village Specifications VS-0600 “Tracer Wire”.

11.0 Inlet / Outlet Grates

- A. Install steel grating on the ends of storm sewers at inlet and outfall locations where storm sewers are 15-inches in diameter or greater, unless otherwise approved by the

Village. Steel grating shall be in accordance with Village Standard Details and requirements of Chapter 8.16.0 of the “Standard Specifications” as modified below.

B. Revise Section 8.16.1 as follows:

- (1) Delete the requirement for fastening grating to the pipe with nuts and replace with the following: “Grating shall be prefabricated as described in Section 8.16.2”.
- (2) Delete the requirement for painting and replace with the following: “After fabrication, the entire grating shall be hot-dipped with a galvanized coating.”
- (2) Inlet/outlet grates (trash racks) shall be placed over both the inlet and outlet end sections. Note: Place outlet grate over end section not within pipe..

12.0 Rip-Rap

A. Riprap shall comply with Section 606 of the “State Specifications”, as modified below.

B. Materials. Riprap shall comply with Subsection 606.2 of the “State Specifications” except that concrete slabs may not be substituted for stone. Riprap dimensions shall be as specified in Subsection 606.2.1 and will be to the approximate sizes and thicknesses listed below.

- (1) Light Riprap: Size(inches) = 4 to 16; Thickness(inches) = 12
- (2) Medium Riprap: Size(inches) = 5 to 20; Thickness (inches) = 18
- (3) Heavy Riprap: Size(inches) = 6.5 to 20; Thickness (inches) = 24
- (4) Extra Heavy Riprap: Size(inches) = 8 to 30; Thickness (inches) = 30

C. Placing Rip-Rap

- (1) Lay stones perpendicular to the slope with close, broken joints, firmly bed in the slope, and thoroughly compact. Chink spaces between stones to make the finish surface even and tight.
- (2) Light Riprap shall be place by hand with larger stones in lower courses. Medium, Heavy, and Extra-Heavy Riprap may be placed by mechanical means, not dumping, that produces work within reasonable tolerances of the typical section(s). Fill voids with smaller pieces.
- (3) Riprap shall be placed on a layer of geotextile fabric. Place fabric in accordance with Subsection 654.3.6 and 654.3.7 of the “State Specifications”.

- a. Light Riprap. Fabric shall be geotextile fabric, Type R (Riprap) meeting the minimum values specified in Subsection 654.2.6 of the “State Specifications”.
- b. Medium, Heavy, and Extra Heavy Riprap. Fabric shall be geotextile fabric, Type HR (Heavy Riprap) meeting the minimum values specified in Subsection 654.2.7 of the “State Specifications”.

13.0 Testing and Inspection

A. Televising Sewers

- (1) All sewers lines will be televised by the Village after forming manhole flowlines and benches prior to acceptance of the work.
 - a. Contractor shall clean all sewers and manholes prior to televising.
- (2) All defects identified by the televising inspection shall be corrected and any dirt, gravel or foreign material removed from the sewer prior to acceptance by the Village. All lines that were either repaired or cleaned shall be re-televised by the Village.
- (3) Sewers shall be re-televised near the end of the 1-year warranty period. All defects identified by the warranty period televising shall be corrected. All lines that were repaired shall be re-televised by the Village.
- (4) All televising and re-televising of sewers by the Village is at the Developer’s cost.

END OF SECTION

**VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS
VS-0400 WATER MAIN**

1.0 Section Description

- A. This section includes Village requirements for water main materials and construction.
- B. Related Sections Include:
 - (1) Section VS-0100 General Terms and Conditions
 - (2) Section VS-0600 Tracer Wire
 - (3) Section VS-0601 Backfilling Utility Trenches
 - (4) Standard Details

2.0 Open Cut Water Main Pipe Materials

- A. Water main pipe material shall be polyvinyl chloride (PVC), unless otherwise directed or approved by the Village to be ductile iron (DI). Hydrant leads shall be ductile iron (DI).
 - (1) Polyvinyl chloride (PVC) pipe (4-inch through 12-inch diameter) meeting the requirements of AWWA Standard C900, DR18, with cast iron O.D. and integral elastomeric bell and spigot joints, and manufactured in the USA.
 - a. Do not furnish cable bonding or other methods of providing electrical conductivity on valves, hydrants, and fittings located within sections of water main constructed with PVC pipe.
 - b. Hydrant leads shall be ductile iron pipe.
 - c. Pipe shall be installed the same year it was manufactured unless approved by the Village Engineer.
 - (2) Polyvinyl chloride (PVC) pipe (14-inch through 30-inch diameter) meeting the requirements of AWWA Standard C905, DR18, with cast iron O.D. and integral elastomeric bell and spigot joints, and manufactured in the USA.
 - a. Pipe shall be installed the same year it was manufactured unless approved by the Village Engineer.
 - (3) Ductile Iron Pipe (DI) meeting the requirements of AWWA Standard C151 (ANSI 21.51), cement mortar lined with internal and external bituminous coating, manufactured in the USA, and furnished with either push-on or mechanical joints with rubber gaskets.

- a. Do not furnish cable bonding or other methods for providing electrical conductivity.
- b. Six (6) inch hydrant lead, 8-inch, and 10-inch pipe shall be Class 53.
- c. Twelve (12) inch and 16-inch pipe shall be Class 52.

3.0 Directionally Drilled Water Main Pipe Materials

- A. Polyvinyl chloride (PVC) pipe meeting the requirement of AWWA C900 (4 inch through 12 inch diameter) or AWWA C905 (14 inch through 24 inch diameter), DR18, with cast iron O.D. and thermal butt fused joints between pipe sections. Joint gaskets shall not be required. PVC material shall have a cell classification of 12454 as defined in ASTM D1784.
 - (1) Pipe shall be Fusible C-900® or Fusible C-905® by Underground Solution, Inc.
 - (2) Pipe used for water main shall be colored blue.
 - (3) Contractor may, upon prior approval from the Village Engineer, select a lesser DR rating (stronger pipe) appropriate to the job site conditions, the capability of his “pull-in” equipment, and his methods of operation.
 - (4) The maximum job site pull-in force shall not exceed the manufacture’s recommended safe pull-in force.
- B. High density polyethylene (HDPE) water main (4 inch through 36 inch diameter) shall meet the requirements of AWWA C906, DR 11, with cast iron O.D. Pipe material shall have a cell classification of PE 3408/PE 3608 (345464C) as specified in ASTM D3350.
 - (1) HDPE pipe has thicker wall thickness than PVC and DI pipe resulting in a smaller inside diameter. Unless the plans specifically state HDPE pipe, the pipe installed shall be one pipe size larger than that shown on the plans so that the inside diameter is similar to that of the adjacent pipe sections.
 - (2) Contractor may, upon prior approval from the Village Engineer, select a lesser DR rating (stronger pipe) appropriate to the job site conditions, the capability of his “pull-in” equipment, and his methods of operation.
 - (3) The maximum job site pull-in force shall not exceed the manufacture’s recommended safe pull-in force.

4.0 Fittings

- A. Fittings shall be ductile iron or cast iron, cement mortar lined with internal and external bituminous coating and meeting the requirements of AWWA Standard C110 (ANSI 21.10). Fittings shall be supplied with mechanical joints and rubber gaskets.
 - (1) Ductile iron mechanical joints fittings meeting the requirements of AWWA Standard C153 for “compact fittings”, 3-inch through 24-inch size, may be used in place of the fittings specified above.
 - (2) All fittings shall be manufactured in the USA.
- B. All water main nuts, bolts, and rods including connections to mains, fittings, valves and hydrants, shall be stainless steel.

5.0 Valves and Valve Boxes

- A. Resilient-Seated Gate Valves. Resilient seated gate valves shall meet the requirements of AWWA C509.
 - (1) Resilient-seated gate valves shall be furnished with mechanical joints with rubber gaskets, iron body, stainless steel bonnet nuts and bolts, bronze mounted, resilient wedge, non-rising stem, “O”-ring stem seals, 2-inch square operating nut opening to the left (counterclockwise), and rated at 200 psi working pressure.
 - (2) All 6-inch and 8-inch valves shall be resilient-seated gate valves unless otherwise approved by the Village.
 - (3) Resilient-seated gate valves shall be Waterous “Series 500” (American Flow Control), Clow F-6100, Mueller A-2362, and manufactured in the USA.
- B. Butterfly Valves. Butterfly valves shall be AWWA rubber-seated butterfly valves meeting the requirements of AWWA C504, Class 150B.
 - (1) Butterfly valves shall be furnished with mechanical joints with rubber gaskets, cast iron body for buried services, stainless steel operator nuts and bolts, underground operator with a 2-inch square operating nut opening to the left (counterclockwise), and rated at 150 psi working pressure.
 - (2) All 12-inch and larger diameter valves shall be butterfly valves.
 - (3) The valve operator shall be on the side of the main closest to the centerline of roadway or center of easement.
 - (4) Butterfly valves shall be Pratt “Groundhog”, Kennedy, Dresser “M&H” , Clow, or Mueller “Linesal III” and manufactured in the USA.
- C. Valve Boxes. Valve boxes shall be two (2) piece cast iron valve boxes consisting of a bottom (5-1/4” shaft diameter) section and screw type top section with cover marked “WATER”. Valve box sections must be installed with the bell section above the spigot so that soil cannot drop into the threads.

- (1) Valve boxes shall be manufactured in the USA. Acceptable manufactures include: Tyler 6850 series and Bingham and Taylor 4905.
- (2) If additional sections are required to adjust the valve box to grade the top section must be removed and replaced with a taller section. Internal extensions are not permitted.
- (3) Valve boxes for gate valves shall be installed with the Valve Box Adaptor II and butterfly valves with the Butterfly Valve Adaptor as manufactured by Adaptor, Inc., of Oak Creek, Wisconsin, or equal.

D. Valve Stem Extensions. Valve stem extensions shall not be installed regardless of the valve depth.

E. Tapping Valves and Sleeves. Tapping valves shall be similar to the AWWA gate valves specified in these provisions except for the end connection (usually flanged) to the tapping sleeve and oversized seat rings to permit entry of the tapping machine cutter.

- (1) Tapping sleeves shall be supplied by the manufacturer of the tapping valves.

F. Cutting-In Valves and Sleeves. Cutting-in valves shall be similar to the AWWA gate valves specified in these provisions except that they shall be provided with special gaskets allowing assembly on various types of pipe.

- (1) Cutting in sleeves shall be supplied by the manufacturer of the cutting-in valves.

6.0 Hydrants

A. Standard Hydrant. Hydrants shall be Mueller Centurion No. A-423 conforming to the following specifications.

- (1) Hydrants shall be compression type, with 5-1/4 inch bottom valve and 6-inch mechanical joint inlet connection, "O"-ring packing, safety flange construction, meeting the requirements of AWWA Standard C502 and meeting specifications for 300 PSI test pressure and 150 PSI working pressure. The bottom or base flanges, shall be fastened using stainless steel nuts and bolts.
- (2) Hydrants shall have two 2-1/2 inch hose nozzles with nut type nozzle caps with gasket and chains and one factory installed 5 inch Storz connection with cap manufactured by Mueller.
- (3) Hydrants shall have 1-1/4 inch pentagon operating nut opening to the left (counter-clockwise).
- (4) Hydrant barrel and nozzles shall be painted red with reflective silver nozzle caps and operating nut as specified below. Storz connection and cap is not to be painted.
 - a. Public (Village) hydrant paint color and manufacturer shall be per the Pleasant Prairie Fire & Rescue Department requirements as noted below.

RustOleum Rust Inhibitive Primer – 7400 Series-1069402
RustOleum Fire Hydrant Red – 7400 Series – 1210402
RusOleum Silver Gray – 7400 Series – 906402
Axon Aerospace Alert Reflective Coating 1440 Silver White

- b. Private hydrants shall be painted in accordance with public (Village) hydrant requirements above except that the Axon Aerospace Alert Reflective Coating 1440 Silver White is not required.
- c. Exception: Fire hydrants located along designed designated fire protection loops fed by fire pump(s) not the municipal system shall be painted solid red.

Rust-Oleum Rust Inhibitive Primer – 7400 Series-1069402
Rust-Oleum Fire Hydrant Red – 7400 Series – 1210402

(5) Install 24-inches of #1 stone at the base of the hydrant around the weep holes.

B. Hydrant Height. Hydrants shall be furnished for the depth of bury shown on the plans or as measured in the field. No hydrant bury shall be less than 6.5'. Vertical bends or offset fittings (6" x 6" thru 6" x 24") may be used to provide additional adjustment. The use of barrel extensions is not permitted. The distance from the ground line to the centerline of the lowest nozzle shall be from 18 to 23 inches.

C. Hydrant Valve and Valve Box. Hydrant valve and valve box shall conform to the requirements for gate valves and valve boxes of these Provisions.

D. Hydrant Leads. Hydrant leads shall be six (6) inch, Class 53, ductile iron pipe.

(1) Restrain hydrants - See Section 8 (Joint Restraint and Buttrressing).

E. Hydrant and Auxiliary Valve Locations.

(1) Along urban roadways, place hydrants 5-feet behind the back of curb or as approved by the Village.

(2) Along rural roadways, place hydrants 1-foot off the right of way (rural roadway areas), to a maximum of 15-feet off the edge of pavement or as approved by the Village.

(3) Place hydrant valves 3-feet off the hydrant as shown in the Village standard hydrant assembly detail unless otherwise approved or directed by the Village.

F. Temporary Hydrant Cover. Temporarily cover new hydrants during construction with polyethylene bags, securely fastened in place, until after the water main has been tested and placed in service.

7.0 Bedding and Cover

- A. Polyvinyl Chloride (PVC) Pipe. Bedding and cover material shall be crushed stone chips conforming to subsection 8.43.2(a) of the “Standard Specifications”. Crushed pea gravel will not be allowed for use as bedding or cover material.
- B. Wrapped Ductile Iron Pipe. Bedding and cover material used with ductile iron water main encased in polyethylene wrap shall be bedding sand conforming to subsection 8.43.2(c) of the “Standard Specifications”.
- C. Trench Section. The trench section shall conform to Section 4.3.3 and File No. 36 of the “Standard Specifications”, as amended below:
 - (1) Bedding and cover shall be placed in a minimum of three separate lifts to ensure adequate compaction of these materials, with one lift of bedding material ending at or near the springline of the pipe. The Contractor shall take care to completely work bedding material under the haunch of the pipe to provide adequate side support.
 - (2) Amend Section 4.3.3 and File No. 36 of the “Standard Specifications” to require a minimum of 12-inches of cover material over the top of the pipe.

8.0 Polyethylene Wrap

- A. Polyethylene wrap shall be provided on all ductile iron water main and cast iron or ductile iron fittings.
 - (1) All joint restraint systems shall be enclosed within the wrap.
 - (2) Wrap all cast iron or ductile iron fittings used with PVC pipe.
 - (3) Wrap all valve boxes.
 - (4) Wrap all hydrant barrels, but be careful not to plug weep holes.
- B. Polyethylene wrap shall meet the requirements of AWWA Standard C-105 (ANSI A21.5) using Class C (black) polyethylene material with 8 mils minimum thickness and shall be installed as specified in Section 4.4.4 of the “Standard Specifications”.
 - (1) Fold and tape loose wrap material to minimize air entrapment which could cause the material to be punctured when backfilling.

9.0 Joint Restraints and Buttrressing

- A. Restraining Fittings, Valves, Sleeves, and dead ends.
 - (1) Restrain all fittings (bends, tees, caps, and plugs), valves , sleeves, and dead ends.
 - (2) Buttrress all fittings in addition to joint restraint.
 - (3) Concrete Buttrresses. All horizontal bends, tees, caps, plugs, and dead ends shall be provided with poured in-place concrete buttrresses, in addition to joint restraint, in

accordance with Section 4.3.13 and file Nos. 43, 44, 45, and 46 of the “Standard Specifications”.

B. Joint Restraint Systems

- (1) Restrain all fittings (bends, tees, caps, and plugs), valves, and sleeves using MEGALUG restrained joints as manufactured by EBAA Iron Sales, Inc. of Eastland, Texas or as provided below.
 - a. Tyler Mechanical Joint Restraint. Joint restraint for mechanical joint pipe and fittings used with either ductile iron or PVC pipe may be provided using Tyler Mechanical Joint Restraint (MJR) System on 4-inch through 12-inch diameter pipe.
 - b. Restrained Joint Pipe. Joint restraint for push-on joint pipe may be provided using U.S. Pipe TR FLEX restrained joint pipe, Clow Super-Lock Joint pipe, Griffin Snap-Lok restrained joint pipe, American Flex-Ring, or Lok-Ring restrained joint pipe.
- (2) All joint restraint nuts and bolts shall be stainless steel.

C. Restraining Vertical Bends, Offsets, Horizontal Bends, Dead Ends, and Tees

- (1) Changes in grade of the water main made by vertical bends or offsets shall be restrained by strapping in accordance with File No. 47 of the “Standard Specifications” or by Joint Restrain Systems provided for in section above.
- (2) Restraining for horizontal bends and dead ends shall be in accordance with File No. 47A with minimum lengths listed below:

Pipe Size (in)	Horizontal Bends (degrees)				Dead end
	11 ¼	22 ½	45	90	
4 to 8	5-ft	5-ft	10-ft	25-ft	45-ft
10 to 12	5-ft	10-ft	15-ft	35-ft	65-ft
14 to 16	10-ft	10-ft	20-ft	40-ft	80-ft
18 to 24	10-ft	10-ft	25-ft	50-ft	120-ft

- (3) Tees. At a minimum restrain all joints within 20-feet of the centerline of the Tee (on both the main and branch lines), unless otherwise shown on the plans.

D. Restrained Hydrant Leads

- (1) Restrain hydrants with thrust blocking and by anchoring to the main. Restrain all joints with MEGALUG. Provide concrete thrust block for both hydrant and hydrant tee.
- (2) Restrain all joints within 20-feet of the centerline of the hydrant tee.

E. Restrained Joint - Water Services Stubs

- (1) All 4-inch and larger water service piping shall be restrained from the main line tee to the shut-off valve and all joints along the entire service stub with the end of the service piping braced with thrust blocking.

10.0 Insulation

- A. Water mains shall be insulated as approved by the Village Engineer and wherever the depth of cover is less than five feet. Insulation shall be in accordance with Chapter 4.17.0 of the "Standard Specifications".

11.0 Sewer Crossings

- A. Center one full length of water main pipe on sewers wherever water main crosses over or under a sanitary or storm sewer so that both water main joints will be as far from the sewer as possible.

12.0 High Points in Water Main

- A. The Contractor shall install water main at the grades per the Village approved plans with no high points constructed in the main except at hydrant locations and as approved by the Village. If a high point which could trap air cannot be prevented, then an air release assembly shall be constructed at that point. The Village reserves the right to order the Contractor to relay water mains placed at the wrong grade.

13.0 Operation of Existing Valves

- A. All existing valves will be operated by or under the supervision of the Village Public Works Department. Contactor shall coordinate valve operations with the Director of Public Works.

14.0 Water Service Disruption

- A. The Contractor shall coordinate his work with the Village when connecting to existing water main(s) or any other work that may require water service disruption. Work shall be scheduled, sequenced, and performed to minimize inconvenience and disruption caused by temporary discontinuance of water service.
 - (1) Contractor shall provide the Village with a plan of their water service disruption work at the preconstruction conference or soon thereafter (prior to critical work scheduling) to coordinate the water service disruption work schedule, resident or business notifications, and Village expectations and requirements for the disruption. Contractor must coordinate and have a mutual understanding with the Village with respect to the water disruption work, prior to commencing work.
 - (2) Resident water service may only be shut down between the hours of 8:30 a.m. and 4:30 p.m. Water service to residences shall not be shut down for a period longer

than eight (8) hours, before 7:30 a.m., after 4:30 p.m., or on weekends without approval from the Village.

- (3) Water service to businesses shall not be shut down for a period longer than two (2) hours unless satisfactory arrangements are made with the businesses affected.
- (4) Contractor shall notify residence(s) and businesses of planned water service disruptions, in advance of their work. In no case shall notifications be made less than 24-hours in advance, unless emergency work is being performed. Contractor must notify and coordinate with effected businesses and residence both in writing and personal contact regarding planned water service disruptions. A copy of written notifications must be provided to the Village along with a log of personal contacts made.
- (5) Contractor shall take whatever measures are necessary to return service at the end of each working day, including the use of temporary valves and plugs.
- (6) The Village reserves the sole authority to prohibit the shutdown of a water main, if in the opinion of the Village that the said shutdown would affect the public health, safety, and welfare or seriously damage a business that is reliant upon the delivery of municipal water.

15.0 Water Services (Within ROW or Public Water Main Easements)

A. Water Service Pipe

- (1) Water service piping for all new and relaid services from $\frac{3}{4}$ -inch through 2-inch diameter shall be polyethylene (PE) tubing (copper tube size) conforming to AWWA C-901 and ASTM D2737, PE 3408, DR 9.0 (200 psi working pressure).
 - a. Use 1-1/2-inch diameter standard residential service.
- (2) Use compression type mechanical fittings for corporation stop and curb valve. Flared fittings shall not be used.
- (3) Join PE pipe to PE pipe using heat-fusion connections.
- (4) All connections to polyethylene tubing to corporation stops and curb valves shall be reinforced with liner/insert stiffeners.

B. Corporation Stops. Corporation stops 1 $\frac{1}{2}$ -inch and 2-inch size shall be Mueller H-15013, McDonald 4701B or Ford FB 600 with cc threads.

- (1) All 1 $\frac{1}{2}$ -inch and 2-inch stops shall be installed using double strap service clamps. Service clamps shall have a ductile iron body and stainless steel straps or shall be 100% stainless steel.

C. Curb Valves. Curb valves 1 $\frac{1}{2}$ - inch and 2-inch size shall be Mueller H-15204 Mark II Oriseal valves, Ford B44-666 (1 $\frac{1}{2}$ -inch) and B33-777 (2-inch) ball valve curb stop or McDonald 6100-T ball valve curb stop.

D. Curb Boxes. Curb boxes (1 ½ - inch and 2-inch size) shall be Mueller H-10336 arch pattern curb box, Ford arch base curb box with Type PS lid (1-inch upper section) or McDonald 5603 arch pattern curb box with 5607-L lid.

(1) Curb boxes shall be furnished with foot piece and stationary rod for 6-1/2 feet of bury.

E. Installation

(1) Water service piping shall be installed in accordance with Chapter 5.5.0 of the "Standard Specifications" and the following provisions.

- a. Do not connect services to the water main until after the main has been tested and a safe water sample obtained.
- b. Insert the corporation stop into the water main while the main is in service and under pressure.
- c. Do not backfill the water service trench until after the service has been checked for leaks and the service piping thoroughly flushed.

(2) Install water service piping with 6-1/2 feet minimum cover except provide 5-foot minimum cover at ditches.

(3) Tapping PVC Water Main. PVC water main shall be tapped using double strap service clamps. Corporation stops installed on PVC pipe shall be furnished with AWWA tapered threads conforming to AWWA C-800.

- a. Service clamps for 1-1/2", and 2" services shall have a minimum total width of 3-inches.
- b. Tap PVC pipe using a shell cutter with internal teeth. Do not use a standard drill and tap for direct tapping under pressure.
- c. Place Teflon tape on corporation stop threads prior to installation. Corporation stops shall be torqued to a maximum of 35 ft.-lb. or as recommended by the manufacturer.
- d. Taps shall be located at least 2-feet from the ends of pipe sections and at least 18-inches apart measured in horizontal direction.

(4) Water Service and Curb Valve Location

- a. Curb valves shall be placed one half (0.5) foot from the right-of-way line, unless otherwise approved by the Village, with the residence side of the curb valve capped or plugged. Curb boxes shall be set to finished yard grade.
- b. Place water service outside existing or future driveways.

(5) Water Service Testing

- a. After the curb valve has been installed the water service shall be flushed to verify the corporation valve is open.

16.0 Tracer Wire

- A. Tracer wire shall be installed with all underground water mains and services in accordance with Village Specification VS-0600.

17.0 Village Inspection of Valves

- A. Village shall inspect and key all valves for alignment and functionality upon completion of the work and prior to roadway paving.

18.0 Salvaged Valves and Hydrants

- A. Valves and hydrants removed as part of the project shall be delivered to the Village of Pleasant Prairie Public Works Department, 8600 Green Bay Road, Pleasant Prairie, WI 53158.

19.0 Hydrostatic Testing

A. General

- (1) All tests shall be performed as specified in Chapter 4.15.0 of the “Standard Specifications”, except that the water main shall pass three consecutive one-hour leakage tests. The Village shall be present at all times during the testing.
- (2) The contractor shall furnish all labor, equipment, and material to complete the testing.
- (3) Temporary Air-Release.
 - a. Trapped air shall be bled off (by tapping the main) when filling the main with water and/or removed by flushing through hydrants.
 - b. Temporary air-release may be provided by tapping 1-inch corporation stops into the high points of pipe or into the plug on dead end lines. After flushing and testing is completed, the temporary taps shall be abandoned in place.
 - c. The contractor shall provide temporary flushing hydrants if required to flush dead end lines.

B. Test Sections

- (1) The Contractor has the option to test the entire new water main as one continuous section or in segments per his discretion.

- (2) Connections to intersecting streets need not be tested, however, the Contractor shall sterilize and flush all connecting mains. The intersecting main(s) shall be subjected to line pressure and any visible defects repaired prior to backfilling.

20.0 Disinfection

A. General Requirements

- (1) The water main shall be disinfected in accordance with Section 4.3.12 and Chapter 4.16.0 of the "Standard Specifications".
- (2) The Contractor shall take all necessary samples of the water and provide any equipment necessary to take these samples. All water sample collections shall be witnessed by the Village. The Contractor shall deliver the samples to an approved laboratory for testing.

B. Safe Samples

- (1) At least one (1) safe sample must be obtained from each of the segments hydrostatically tested. Additional samples may also be required from:
 - a. Representative locations from each of the test sections to establish that all of the mains are free of contamination.
 - b. Dead end lines.
 - c. Connections to existing mains.
- (2) Water main segments shall not be placed in service until after safe water sample(s) have been obtained.

C. Procedures for disinfecting Connections to Existing Mains

The following procedures apply when existing mains are wholly or partially dewatered. Existing mains that are isolated by an existing valve require no disinfection. After the appropriate procedures have been completed, the existing main may be returned to service prior to completion of bacteriological testing to minimize disruption to service.

- (1) Apply liberal quantities of hypochlorite to wet trenches at or near the connection to the existing main. Use hypochlorite tablets if water is being pumped from the trench to prolong protection as hypochlorite is slowly released as the tablets dissolve.
- (2) Swab the interior of all pipe and fittings located between the connection to the existing main and the closest new valve (including connection pipe and fittings) with a one percent hypochlorite solution.
- (3) Flush the connection to the existing main, from both directions toward the connection if valve and locations permit, as soon as the connection has been completed and the nearest new valve installed and secured. Flush through the new main until all discolored water is eliminated.

- (4) Should the water main connection be severely contaminated by dirty water or other means, the existing main and connection shall be disinfected by slug chlorination in accordance with the procedures specified below:
 - a. Continue to isolate the section of contaminated main.
 - b. Shut off all service connections.
 - c. Place hypochlorite tablets in the connection to the new main.
 - d. Flush the main to remove particulates.
 - e. Slowly close the contaminated main with a 300 mg/l free chlorine concentration for a period of at least 15-minutes.
 - f. Flush the main until the water is free of noticeable chlorine odor.
 - g. Open service connections and return the main to service.
- (5) Take bacteriological samples to provide a record for determination the effectiveness of the procedure. Samples may be required from both sides of the connection.
 - a. If unsatisfactory tests are recorded, the Village will determine the necessary corrective action. Take daily samples until two consecutive safe samples have been recorded.

B. Rechlorination

- (1) Should any test prove unsatisfactory, the water main shall be sterilized by the Contractor by such methods as he deems necessary and samples taken until acceptable results are obtained.

C. Flushing

- (1) All water mains, including dead end mains and all hydrants, and all water services shall be flushed. Water services shall be flushed, with a minimum amount of water equivalent to the volume of the service pipe, until the water is visibly clean.
 - a. The Contractor shall use suitable methods for disposing of flushing water to prevent surface erosion.
 - b. The Contractor shall provide temporary flushing hydrants as required.
- (2) Water for testing and flushing will be furnished by the Village at the Contractor's expense. The Contractor shall notify the Village prior to commencing flushing and shall coordinate his operations with the Village in order not to deplete the water supply. Water usage may be restricted to periods of low demand (night time or weekend hours) if water usage is high during normal working hours. All flushing of

new mains and services shall be done under the direct supervision of the Village or their representative.

- (3) The Contractor shall meter all water used for flushing purposes. A complete record of all water used for flushing, including amounts and dates, shall be kept by the Contractor and provided to the Village.
 - a. The Contractor shall use a flushing meter provided by the Village. The meter shall be returned, in good condition, immediately after completing flushing operations. The Contractor shall be responsible for any damage to flushing meters.

D. Swabbing Water Main

- (1) All piping installed outside of water main test segments shall be disinfected by swabbing with 1% hypochlorite solution and thoroughly flushed. The entire interior surfaces of all pipes and fittings shall be thoroughly swabbed. The diameter of swabs used in pipe shall match the interior pipe diameter and provide resistance when swabbing the pipes. Pipes shall be swabbed with a pumping motion with all surfaces wiped several times. The Contractor shall use extreme care to insure the cleanliness of all water main materials used.

END OF SECTION

**VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS
VS-0500 ROADWAY AND SIDEWALK**

1.0 Section Description

- A. This section includes requirements for roadway materials and construction.
- B. Related Sections Include:
 - (1) Section VS-0100 General Terms and Conditions
 - (2) Standard Details

2.0 Subgrade Preparation

- A. The Contractor shall grade and prepare the road subgrade for base aggregate dense placement. All excavation and grading work shall comply with the provisions of Section 205 (Roadway and Drainage Excavation), 207 (Embankment), 211 (Preparation of Foundation) and 213 (Finishing Roadway) of the “State Specifications”.
- B. All topsoil from within the traveled roadway to two (2) feet minimum beyond the back of curb shall be removed.
- C. Methods for stabilizing poor subgrades shall be approved by the Village prior to work being completed. Village may require a Geotechnical analysis and design for stabilizing poor subgrades.
- D. Proof-rolling. Prior to placing granular sub base or base course material, the Contractor shall test the subgrade strength by proof-rolling. Proof-rolling shall involve running a fully loaded tri-axle dump truck over the entire roadway base (pavement plus shoulders) width at a normal walking speed. Soft, yielding areas or depressions in the subgrade shall be removed and backfilled with granular backfill in accordance with “excavation below subgrade” below. Aggregate base course shall not be placed until the subgrade has successfully completed the proof-roll testing. Proof-rolling must be witnessed and inspected by the Village. The Contractor must coordinate with the Village for inspection.

3.0 Excavation Below Subgrade

- A. Deposits of frost–heave material, unstable silty soils, water bearing soil, topsoil or other undesirable foundation materials shall be removed from the area within the roadway slopes to such depths as directed or approved by the Village. This work shall be done in accordance with Subsection 205.3.4 of the “State Specifications”
- B. Granular backfill for excavation below subgrade shall comply with Section 209 of the “State Specifications”.
 - (1) Pit run gravel will generally be acceptable as granular backfill.

4.0 Base Aggregate Dense

A. Base aggregate dense shall be constructed in accordance with Section 305 of the “State Specifications,” and the typical section(s) as approved by the Village. The Contractor shall furnish and place base course material as required to construct the base course to grade.

(1) Aggregate shall be crushed limestone, crushed concrete, or approved equal.

B. Gradation. Base aggregate dense shall conform to the following gradations; as specified in Subsection 305.2.2.

(1) Top layer: 1-1/4-inch (4” minimum thickness); 3/4-inch (Traffic Bond) must be used if roadway is not being paved within the same construction season and the road is open to public traffic.

(2) Lower layer(s): 1-1/4-inch (4” minimum thickness).

C. Standard Compaction

(1) Crushed aggregate base course shall be compacted in accordance with Subsection 305.3.2 of the “State Specifications,” as modified below.

a. Compacted layers shall be 6-inches or less, unless otherwise approved by the Village.

b. Moisture shall be added by tank wagon as required for maximum compaction.

c. Standard compaction shall consist of compacting each layer of the base course to the degree that no further appreciable consolidation is evidenced under the action of the compaction equipment.

d. Compaction shall be performed by specialized compaction equipment including, pneumatic-tire rollers, vibratory rollers or other approved compaction equipment.

D. Proof-rolling

(1) Prior to placing asphaltic or concrete pavement, the Contractor shall test the base course strength by proof-rolling. Proof-rolling shall involve running a fully loaded tri-axle dump truck over the entire roadway base (pavement plus shoulders) width at a normal walking speed. Soft, yielding areas or depressions in the base course shall be removed, replaced with clean crushed aggregate base course, compacted in 6 inch maximum lifts and retested. Proof-rolling must be witnessed and inspected by the Village. The Contractor must coordinate with the Village for inspection.

E. Dust Control

(1) The Contractor shall minimize the dispersion of dust from the base course, including shoulders, during construction and maintenance operations until after placement of the surface course.

- (2) Dust control shall be accomplished by the application of water or other approved dust control material as required by the Village.

5.0 Base Aggregate Open Graded

- A. Open graded base shall be constructed in accordance with Section 310 of the “State Specifications,” and the typical section(s) and details as approved by the Village. The Contractor shall furnish and place material as required to construct the base course to grade and install the underdrain.
- B. Open graded base shall conform to the materials and gradation as specified in Subsection 6
- C. Standard Compaction
 - (1) Crushed aggregate base course shall be compacted in accordance with Subsection 310.3 of the “State Specifications,” as modified below.
 - a. Compacted layers shall be 6-inches or less, unless otherwise approved by the Village.
 - b. Standard compaction shall consist of compacting each layer of the base course to the degree that no further appreciable consolidation is evidenced under the action of the compaction equipment.
 - c. Compaction shall be performed by specialized compaction equipment including pneumatic-tire rollers, vibratory rollers or other approved compaction equipment.
- D. Proof-rolling
 - (1) Prior to placing asphaltic or concrete pavement, the Contractor shall test the base course strength by proof-rolling. Proof-rolling shall involve running a fully loaded tri-axle dump truck over the entire roadway base (pavement plus shoulders) width at a normal walking speed. Soft, yielding areas or depressions in the base course shall be removed, replaced with clean crushed aggregate base course, compacted in 6 inch maximum lifts and retested. Proof-rolling must be witnessed and inspected by the Village. The Contractor must coordinate with the Village for inspection.
- E. Dust Control
 - (1) The Contractor shall minimize the dispersion of dust from the base course, including shoulders, during construction and maintenance operations until after placement of the surface course.
 - (2) Dust control shall be accomplished by the application of water or other approved dust control material as required by the Village.

6.0 Concrete Masonry (Pavement, Curb and Gutter, Sidewalk)

A. Grade of Concrete

- (1) All concrete shall be Grade A-FA, air-entrained, as specified in Subsection 501 of the “State Specifications”, unless otherwise approved by the Village.
 - a. All concrete shall be “ready-mix”.
 - b. Concrete shall be a six-bag mix with a minimum 28-day compressive strength of 3,500 psi.

B. Curing

- (1) Concrete pavement, curb and gutter, and sidewalk shall be cured in accordance with the requirements of Subsection 415.3.12 of the “State Specifications”, except that all concrete shall be cured by the Impervious Coating Method as specified in Subsection 415.3.12.2.
- (2) Clear curing compound may only be used on colored concrete, all other cure shall be white. Cure shall be installed to have complete and uniform coverage.

C. Test Specimens

- (1) The Contractor shall take two representative concrete samples in accordance with ASTM C-31 for 7 day and 28 day compression testing in accordance with ASTM C-39 from approximately every 300-feet of roadway, 500 feet of curb and gutter, and 400 feet of sidewalk or as directed by the Village.
- (2) Test cylinders shall be six inches in diameter by 12-inches in height.
- (3) The Contractor shall field cure, care for and ship the test cylinders to the testing laboratory. Copies of the test results shall be provided to the Village.

D. Cold Weather Work

- (1) Cold weather work shall be in accordance with Section 415 of the “State Specifications”.
- (2) Concrete pavement shall not be placed when the air temperature is less than 36-degrees, unless approved by the Village.
- (3) For composite HMA /PCC roadways, concrete base shall not be placed if there is insufficient time in the construction season to place the asphalt surface layer, unless otherwise approved by the Village.

7.0 Concrete Curb and Gutter

- A. Concrete curb and gutter shall conform to the Standard Village Curb details, unless otherwise approved by the Village and shall be constructed in accordance with Section 601 of the “State Specifications”.

B. Concrete curb and gutter shall be constructed on a layer of compacted base aggregate dense base course, placed to a thickness matching the subgrade elevation of the curb and gutter to the subgrade elevation of the adjacent pavement.

C. Curb and gutter placed separately from abutting new concrete shall be constructed with tie bars. Place #4 x 2'0" long at 3' c-c.

D. Contraction Joints

(1) Adjacent to Concrete Pavement

a. Contraction joints in curb and gutter adjoining concrete pavement, including HMA / PCC composite road sections, shall be spaced to match joints in the abutting concrete pavement as shown in the jointing plan.

(2) Adjacent to Asphaltic Pavement

a. Contraction joints in curb and gutter adjoining asphaltic pavement shall be spaced at intervals of 10-feet or as directed by the Village.

(3) If the Contractor elects to saw-cut the joints, the joints shall be saw cut the same day when normal or rapid concrete setting conditions prevail. If conditions exist that retard the setting of the concrete, the saw-cutting of the joints shall be delayed until the concrete has set sufficiently to preclude raveling during the sawing. If shrinkage cracks develop prior to saw-cutting, the cracked sections of concrete shall be removed to such an extent that the normal joint spacing will still exist. Contraction joints constructed by saw-cutting shall be a minimum of 2-inches in depth.

E. Expansion Joints

(1) Expansion joints shall be placed as outlined in Subsection 601.3.6 of the "State Specifications". Joint filler shall be ¾-inch expansion fiber material.

(2) Adjacent to Concrete Pavement

a. Expansion joints in curb and gutter adjoining concrete pavement, including HMA / PCC composite road sections, shall be placed to match expansion joints in the abutting concrete pavement.

(3) Adjacent to Asphaltic Pavement

a. Expansion joints in curb and gutter adjoining asphaltic pavement shall be placed at the following locations:

i. Three feet from each side of drainage structures.

ii. At 300 foot maximum spacing on both tangents and curves.

F. Opening to Traffic

- (1) Traffic shall not be allowed on curb and gutter for a period of 7 days after placing or until the concrete has attained a compressive strength of at least 3,000 pounds per square inch as determined by cylinder breaks.

G. Tapered Curb Ends

- (1) A tapered curb section shall be constructed at the ends of the curb and gutter. The tapered section shall be 3-feet long and end with a 2-inch high curb. A contraction joint shall be placed at the end of the tapered section.

H. Concrete curb and gutter shall be backfilled with compacted excavated material or granular material, except for the top 4-inches which shall be topsoil. All backfilling shall be completed within two weeks of curb and gutter installation. Roadways shall not be open to any traffic until backfilling has been completed. The Contractor shall immediately restore any backfill that settles.

I. Curb and Gutter Replacement Sections

- (1) Damaged curb / gutter sections shall be removed to the nearest joint.
- (2) Base aggregate dense base course shall be compacted prior to installing new curb/gutter.
- (3) Curb and gutter constructed adjacent to existing curb and gutter shall be installed using two (2) No.4 (1/2-inch), 18-inch long tie bars, evenly spaced, driven 9-inches into the existing curb and gutter.

8.0 Concrete Pavement

A. Concrete pavement shall be constructed in accordance with Section 415 of the “State Specifications” as amended herein.

B. Joints

(1) Jointing Plan

- a. Contractor shall prepare a jointing plan for concrete pavement unless already provided for in the project construction plans. The jointing plan must be submitted to the Village for review and approval. Concrete pavement may not be placed until the jointing plan has been approved of by the Village. Pavement installed which does not match the jointing plan must be removed and replaced at the Contractor’s cost to match the jointing plan.
- b. Longitudinal joints shall be constructed along the centerline of the pavement, along the edges of traffic lanes, and at locations shown on the plans in accordance with “State Specifications”.
- c. Transverse Joints

- i. 7-inch Concrete Pavement (or less than 8-inches): Transverse joints shall be constructed at normal 10-foot spacing and as shown on the plans.
 - ii. 8-inch (or more) Concrete Pavement: Transverse joints shall be constructed at normal 10-foot or 15-foot spacing and as shown on the plans.
 - iii. Transverse joints shall be located to match joints in the adjacent curb and gutter (separately poured curb and gutter) or shall extend through integrally poured curb and gutter.
 - d. Isolation Joints / Boxouts (Structures)
 - i. Form isolation joints (boxouts) around structures; i.e., manholes, valve boxes and catch basins.
 - ii. Adjust transverse joints passing within 5-feet of a structure to pass through the structure or boxout.

C. Pavement Ties Bars and Dowel Bars

- (1) All longitudinal joints, including construction joints, shall be constructed using tie bars conforming to Subsection 505.2.6 of the “State Specifications”.
- (2) Transverse joints, shall be constructed with dowel bars, if required on the plans for collector or industrial roads or other roads as required by the Village. Dowel bars shall conform to Subsection 505.2.6 of the “State Specifications”.

D. Surface Finish

- (1) The final surface shall conform to Subsection 415.3.8 of the “State Specifications”. When a concrete base for a composite HMA / PCC roadway the surface finish shall provide sufficient texture to obtain a good mechanical bond between the HMA and PCC.

E. Opening to Traffic

- (1) The pavement shall be opened to traffic in accordance with Subsection 415.3.15 of the “State Specifications”. In general, traffic shall not be allowed for a period of at least seven (7) days when temperatures are generally 70-degrees (F) or higher during the period or after test cylinders show a compressive strength of 3,000 psi or more.

9.0 Concrete Sidewalk

- A. The construction of concrete sidewalks shall comply with Section 602 of the “State Specifications” and Village standard details.

- B. Standard sidewalk thickness shall be 5-inches except at driveways where the sidewalk shall match the thickness of the adjacent concrete drive with a minimum thickness of 6-inches provided.
- C. Standard sidewalk width shall be 5-feet unless a wider sidewalk section is identified in the plans.
- D. Sidewalk shall have a broomed finish.
- E. Concrete sidewalks shall be constructed on a compacted gravel base. The gravel base shall be base aggregate dense 1-1/4-inch. The base shall be constructed to the following minimum thicknesses:
 - (1) Concrete sidewalk: minimum 4-inch thick base
 - (2) Concrete sidewalk at driveways: minimum 6-inch thick base
- F. Joints shall be placed and constructed in accordance with Subsection 602.3.2.5 of the "State Specifications" and these Special Provisions.
 - (1) Expansion Joints: Place one-half (1/2) inch expansion joints as directed below:
 - a. Through sidewalks at uniform intervals of not more than 96 feet.
 - b. At joints with intersecting sidewalks.
 - c. Between sidewalk and back of curb and gutter. Construct the sidewalk grade ¼ inch higher than the back of curb elevation where they meet.
 - d. At the intersection of 5-inch sidewalk with (6 inch) drives.
 - e. Place one inch expansion joints between sidewalk and buildings or other rigid structures.
 - (2) Contraction Joints: Place contraction joints at a 5-foot typical spacing. Contraction joint spacing shall typically match adjacent sidewalk sections.
- G. Handicap Ramps. Handicap ramps and detectable warning fields shall be constructed in accordance with standard WDOT details or Village approved project plan details. Detectable warning fields within public sidewalks shall be natural finish cast iron and included on the Wisconsin DOT approved products list.
- H. Opening to Traffic
 - (1) Pedestrian traffic shall not be allowed for a period of at least 3 days after placing concrete and vehicular traffic shall be excluded for a period of at least 7-days after

placing or until the concrete has attained a compressive strength of at least 2,500 psi.

10.0 Asphaltic Concrete Pavement

- A. Asphaltic concrete pavement shall comply with Section 450, 455, and Section 460 of the “State Specifications” as modified below. The pavement mix shall be approved by the Village for each project. The pavement mix shall be comprised of virgin and/or recycled aggregate and asphaltic materials unless otherwise specified.

(1) Aggregate

- a. The aggregate in the pavement mix shall conform to the requirements of the State Specifications. Aggregate gradation shall conform to 19.0 mm (3/4 inch) nominal size aggregate for lower layers, 12.5 mm nominal size aggregate for the upper layer and either 12.5 mm (1/2 inch) or 9.5 mm (3/8 inch) nominal size aggregate for driveways and parking areas in accordance with Subsection 460.2.3 of the “State Specifications.”

(2) Asphalt Cement

- a. Asphalt cement, Type AC, shall conform to Subsection 455.2.4 of the “State Specifications” and shall be performance grade PG 64-22 or PG 58-28. Asphalt cement content shall be in accordance with State approved mixes.

(3) Pavement Mix

- a. Prior to beginning construction, the Contractor shall provide the Village with copies of current state approvals for the pit, mixing plant and design mixes for materials proposed to be used on this project.
- b. Asphaltic mixture shall be produced and incorporated in the work on the basis of a job-mix formula. The Contractor shall be responsible for the asphaltic job-mix design report, conforming to Subsection 460.2.7, and shall submit a signed copy of the report to the Village for review at least two weeks prior to plant startup for paving production.
- c. Pavement mixtures shall be in accordance with Subsections 460.1 and 460.2 of the “State Specifications” and shall be the types noted as specified below, unless otherwise adjusted by the Village:
- i. E-0.3: Residential streets and parking lots.
 - ii. E-1: Industrial, commercial, and collector streets.
 - iii. E-3: Major arterial streets.
 - iv. Asphaltic Surface: Driveways and small parking lots (Option-Use Type E-0.3).

- v. Delete Subsection 460.2.8 from the “State Specifications”. Quality management program does not apply to this project.

B. Pavement Compaction

- (1) All pavements shall be built in accordance with the Maximum Density Method per Subsection 460.3.3 of the “State Specifications.” The maximum specific gravity value shall be indicated on the asphaltic job-mix design report.
- (2) Minimum required density shall be in accordance with Subsection 460.3.3.1 of the “State Specifications.”
- (3) Incentive for Asphaltic Concrete Pavement Density, Subsection 460.5.2.3 shall not apply to the specifications for this project.

C. Recycled Asphaltic Concrete Pavement

- (1) The Contractor may use recycled asphaltic concrete pavement for all layers.
 - a. The recycled pavement shall consist of a mix of salvaged asphaltic pavement materials, presently stockpiled for use by the Contractor, and the required amounts of aggregate and asphalt cement. The recycled pavement shall be in accordance with a State approved mix calculated for the stockpiled material and comply with Section 460 of the “State Specifications.” The Contractor shall submit a copy of the job-mix formula to the Village.

D. Butt Joints

- (1) The Contractor shall construct butt joints wherever the new pavement overlay butts up to existing pavements; including at intersecting streets, project ends, all driveways and as shown on the Plans.
- (2) Butt joints may be constructed by removing a section of pavement by sawcutting or by milling down a minimum of 1.75-inches of pavement. Butt Joints shall be constructed in neat straight lines at right angles to the street.

E. Pavement Passes and Thickness

- (1) Pavement layers and thicknesses shall be as shown on the plans. Lower layer and upper layer passes shall be staggered to prevent joints from extending through the entire asphaltic pavement. The longitudinal joint(s) in the upper layer shall be located in the centerline of the pavement and/or at edges of traffic lanes.

F. Tack Coat

- (1) A tack coat shall be applied to each lower layer (including concrete base for composite HMA / PCC road structures) prior to placing the succeeding layer. Apply the tack coat the same day that next layer is placed.

- (2) Tack coat material shall be an asphalt emulsion, conforming to Subsection 455.2.5 of the "State Specifications", diluted with an equal amount of water and applied at a rate of 0.025 gallons per square yard or at a rate required to effectively bond the overlying material.
- (3) The Contractor shall sweep the pavement area with a power broom or street sweeper to remove dust, dirt, clay or other objectionable material prior to placing the tack coat.
- (4) Surfaces of all structures shall be protected from being spattered or marred by tack coating operations.

G. Temperature of Asphalt Placed

- (1) All asphalt (both upper and lower layers) shall be delivered to the project site at a temperature not less than 250°F.

H. Cold Weather Work

- (1) Asphaltic pavement shall not be placed when the air temperature is less than 36-degrees unless approved by the Village.
- (2) Paving done during the period between October 15th and May 1st shall require Village approval and be in accordance with Subsection 450.3.2 of the "State Specifications".

I. Construction Equipment

- (1) The paver shall have sufficient power and traction to operate on grades. Screenshot extensions with static extensions shall not exceed 12 inches. Automatic control systems shall be used unless otherwise determined by the Village.
- (2) Vibratory rollers shall conform to Subsection 450.3.1.5.

J. Construction Requirements

- (1) Prior to placing asphaltic base or surface courses, all required corrections of filling potholes, sags, and depressions shall be made.
- (2) All edges of existing abutting asphaltic pavements shall be saw-cut immediately prior to paving to form a straight firm joint, unless otherwise waived by the Owner.
- (3) All rolling shall be performed during daylight hours or as approved by the Engineer.

11.0 Underdrains

- A. Underdrains shall conform to Section 612 of the "State Specifications" as amended herein.
 - (1) Materials

- a. Underdrain pipe shall be perforated corrugated polyethylene drainage pipe conforming to Subsection 612.2.5.
 - b. Wrap all underdrain with geotextile fabric conforming to Subsection 612.3.2.
- (2) Construction
- a. Pipe underdrain shall be installed at a minimum grade of 0.50%.
 - b. The invert of the underdrain shall be located a minimum depth of 8-inches below the top of subgrade.
 - c. Pipe underdrain shall discharge to catch basins. Underdrains shall be connected to catch basins by means of flexible watertight seals.
 - d. Backfill excavation with base aggregate open graded conforming to Subsection 310.2 of the “State Specifications.”
 - e. Storm sewer laterals and drain tiles shall not be connected to underdrains.

12.0 Street Signs

- A. Street signs shall conform to Section 634 and 637 of the “State Specifications” as amended herein.

(1) Sign Support Posts

- a. All signs shall be mounted on steel support posts.
 - i. Posts shall be galvanized 2.375" o.d. steel pipe, 0.095" wall, powder coated black and equipped with an anti-rotation steel anchor plate.
 - ii. Posts shall be driven in the ground to a depth of 4' below proposed grade. Excavating the post hole is not permitted. Post installation shall be plumb.

(2) Hardware

- a. All hardware for all sign installation shall be mounted to the support in a manner to prevent rotation of the sign. Backbraces shall be mounted to the sign to provide adequate support at the top and bottom of the sign to prevent bending. All hardware for signs shall be mounted to the sign by use of aluminum or stainless steel bolts.

END OF SECTION

**VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS
VS-0600 TRACER WIRE**

1.0 Section Description

- A. This section includes requirements for underground warning tape and tracer wire. Underground warning tape shall be installed with all underground utilities, excluding storm sewer, installed by open cut construction. Tracer wire shall be installed with all underground utilities including laterals which are not identified by surface facilities such as manholes.

- B. Related Sections Include:
 - (1) Section VS-0200 Sanitary Sewer
 - (2) Section VS-0300 Storm Sewer
 - (3) Section VS-0400 Water Main
 - (4) Section VS-0800 Street Lighting
 - (5) Standard Details.

2.0 Underground Warning Tape

- A. Materials
 - (1) Underground marking tape for use in open cut construction shall be non-detectable and a minimum of 3-inches wide.

 - (2) Marking tape for:
 - a. Sanitary sewer and laterals shall be green and state “sewer” within the warning text.
 - b. Water mains and services shall be blue and state “water” within the warning text.
 - c. Force mains shall be green and state “sewer” within the warning text.
 - d. Electrical conduit shall be red and state “electric” within the warning text.

- B. Installation.
 - (1) Place the marking tape approximately 2-foot above the top of pipe.

2.0 Tracer Wire

- A. Materials

- (1) Tracer wire for use in open cut construction shall be 10 gauge multiple stranded copper wire insulated for underground installation.
- (2) Tracer wire used with horizontal directional drilling shall be 8 gauge multiple stranded copper wire insulated for underground installation.
- (3) Tracer wire for:
 - a. Sanitary sewer and laterals shall be green.
 - b. Water mains and services shall be blue.
 - c. Storm sewers and laterals shall be gray.
 - d. Force mains shall be brown.
 - e. Electric conduit shall be red.

B. Splices

- (1) Tracer wire shall be continuous between exposed connection points unless splicing is approved by the Village.
- (2) Wire splices shall be in accordance with standard electrical practices. Acceptable wire splices are brass split bolts, Dryconn Waterproof Connectors, Snap-loc Model LV 9500, or approved equal. Wire nuts are not acceptable.
- (3) Branch connections utilizing split bolts - Splice branch tracer wire to main tracer wire using the following procedure:
 - a. Bare tracer wire on main line (do not cut).
 - b. Connect branch wire to main line with brass split bolt.
 - c. Seal connection with rubber electrical tape and overwrap with 2 layers of polyethylene adhesive tape 1-1/2" wide and 8 mils thick.
- (4) Branch connections utilizing other approved connectors – Follow manufacturer's recommendations.

C. Installation

- (1) In open cut construction, place the tracer wire at the springline of the main or lateral and tape to the pipe at a minimum of 10 foot intervals on top of pipe.
- (2) For horizontal directional drilling type construction and electrical conduit, tape the tracer wire to the pipe at 5-foot intervals leaving sufficient slack to accommodate the stretching of the pipe during pull-back.

D. Electrical Connections

- (1) Tracer Wire Access Box: Access boxes shall be constructed of cast iron and ABS components with tamper proof cover identifying the utility and a cast-in pentagonal bolt opened with a standard pentagonal key. Provide stainless steel terminal bolts on the cover for attaching tracer wire. Access boxes shall be manufactured by C.P. Test Services – Valvco, Inc.
 - a. The cast iron cover shall be labeled as described below:
 - i. Sanitary sewer lids shall read “SEWER”.
 - ii. Water main lids shall read “WATER”.
 - iii. Storm sewer lids shall read “STORM SEWER”.
 - iv. Force mains lids shall read “SEWER” and be painted brown.
 - v. Electrical conduit lids shall read “ELECTRIC”.
- (2) Water mains: Electrical connections to tracer wire identifying water mains shall be provided by extending the tracer wire through a Tracer Wire Access Box located in back of all hydrants.
- (3) Sanitary and storm laterals (Lateral stubs for New Development or future connection): Sanitary and Storm laterals shall have tracer wire run from the main to the lateral marker board, up the lateral board marker, then back down, terminating with a 5-foot coil of wire and all the while maintaining a continuous loop, unless otherwise directed to use a Tracer Wire Access Box at the lateral termination. The Tracer Wire Access Box will be removed / relocated at the time the sanitary or storm service is extended for a building connection.
- (4) Water laterals (Lateral stub for future home connection): Water laterals stubs shall have tracer wire run from the mainline to the curb box extending the tracer wire through a Tracer Wire Access Box in back of the curb box. The Tracer Wire Access Box will be removed / relocated at the time the water service is extended for a building connection.
- (5) Sanitary, storm, and water laterals (from Right-of-Way to Building): Tracer wire from public laterals shall be extended / connected to the private lateral service and the electrical connections to tracer wire(s) identifying sanitary, storm, and water service laterals shall be provided by extending the tracer wire for each utility through a Tracer Wire Access Box at the building.
 - a. When extending a water, sanitary, or storm service with a Tracer Wire Access Box by the curb box or lateral termination, the Tracer Wire Access Box shall be removed and replaced in the locations per these provisions.
- (6) Force mains: Electrical connections to tracer wire identifying force mains shall be provided by extending the tracer wire through a Tracer Wire Access Box in lawn areas located at the termini of the force main, adjacent to all valves and at all roadway intersections. If the force main is within pavement the access box shall be installed just beyond the edge of pavement in the lawn at these locations. Extend

the tracer wire, perpendicular to the main, to the access box at a minimum depth of 3-feet.

- (7) Electrical conduit: Electrical connections to tracer wire identifying electrical conduit shall be provided by extending the tracer wire through a Tracer Wire Access Box located at the control panel, the last street light run, and at one light or traffic signal pole in every quadrant of an intersection.

E. Testing

- (1) The Contractor shall test all tracer wire for electrical continuity prior to acceptance of the main or service lateral to which it is accessory. Testing shall be done in the presence of the Village.

END OF SECTION

**VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS
VS-0601 UTILITY TRENCH BACKFILL**

1.0 Section Description

- A. This section includes requirements for backfilling utility trenches.

2.0 Materials

- A. Excavated Material Backfill shall be in accordance with Section 8.43.5 of the “Standard Specifications”.
- B. Granular Material Backfill shall be in accordance with Section 8.43.4 of the “Standard Specifications”.
- C. Slurry Material Backfill material shall be placed in a clean concrete mixer truck and thoroughly mixed in the following quantities for each cubic yard required:

- 1,350 lbs sand
- 750 lbs #1 stone
- 1,150 lbs #2 stone
- 25 gals water (0 to -0.5 gal variance)

3.0 Trench Backfill

- A. Excavated material backfill may only be used in approved locations, outside of existing or proposed pavements, roadways, road shoulders or other improved surface, unless otherwise directed by the Village to use granular or slurry backfill.
 - (1) In such a case where excavated material backfill is approved in a location of a future surface improvement area, the following areas shall have granular backfill in place of excavated material backfill:
 - a. Trenches within fifteen (15) feet of manholes (measured from the center of manholes).
 - b. Trenches within ten (10) feet of catch basins and valve boxes.
- B. Granular material backfill shall be used in the following locations, unless otherwise directed by the Village to use slurry backfill or excavated material backfill:
 - (1) Trenches within or extending 5-feet within proposed new public roadway areas in which the roadway paving schedule requires granular material, as determined by the Village.
 - (2) Trenches within and extending 3-feet beyond driveways or parking areas.

- (3) Trenches parallel to existing roadways or other improved surfaces but within one-to-one (1'H: 1'V) slopes extending downward and outward from the edges of such improved surfaces.
- C. Slurry backfill shall be used in the following locations, unless otherwise directed or approved by the Village to use granular backfill:
 - (1) Trenches located within existing roadways and gravel shoulders.
 - (2) Trenches extending within 5-feet of roadway pavement.

4.0 Consolidation

- A. Amend Section 2.6.14 of the "Standard Specifications" to read in part:

"All granular and excavated material backfill shall be consolidated through mechanical compaction by means of a backhoe boom-mounted compactor. Either a vibratory compactor or compaction wheel is acceptable if it can meet the densities specified below. The backhoe used for compaction shall be equal in reach to the backhoe used for excavating the trench; i.e., capable of reaching the bottom of the trench with no additional shelf excavation. Backfill shall be compacted in eighteen (18) inch maximum lifts, before compaction, unless noted otherwise below, except that the first lift shall be two (2) feet in depth. The Contractor shall take all precautions necessary to protect utilities from being damaged during backfilling and compaction operations."

- (1) Granular backfill shall be compacted to a minimum of 95% Standard Proctor Density.
 - (2) Excavated material backfill shall be compacted to a density equal to 100% of the density of the undisturbed material in adjacent trench walls.
 - (3) Topsoil layer shall not be compacted.
- B. If there is a question as to whether or not the specified density has been achieved, the Village may require that a soil testing firm, selected by the Village, be brought in to determine the backfill density. All testing costs shall be paid for by the Contractor.
 - C. If the Contractor desires to use alternate compaction equipment or backfill depths greater than those specified, documentation must be submitted to the Village substantiating the adequacy of the proposed compaction method. Alternate compaction methods may not be used unless approved by the Village. The Village may require density testing by an approved soil testing firm to field verify backfill densities.

END OF SECTION

**VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS
VS-0602 SITE RESTORATION AND SURFACE REPLACEMENT**

1.0 Section Description

- A. This section includes minimum requirements for general site restoration and surface replacement.
- B. Related Sections Include:
 - (1) Section VS-0100 General Terms and Conditions
 - (2) Section VS-0500 Roadway and Sidewalk Construction

2.0 General

- A. Wherever any surface improvements such as any sidewalk, driveway, curb, gutter, terraced area, shoulder, pavement, culvert, lawn, ditch, fence, sign, mailbox or other property damaged by the Contractor's operations, they shall be repaired or replaced to the Village's satisfaction.
 - (1) Contractor shall consult with the Village regarding restoration / repairs of any pavement or structure regarding special requirements that the Village may have.
- B. The Contractor shall keep the sites of his operations clean during construction and remove all rubbish or debris on a daily basis.
- C. The Contractor shall take all precautions necessary to protect adjacent road pavements, including shoulders, from being damaged.
- D. Contractor shall comply with all project plan and permit restoration provisions and specifications.
- E. Site restoration and surface replacements shall be completed in a timely fashion during the course of construction operations or as directed by the Village.

3.0 Pavement Restoration

- A. Gravel roads and road shoulders repair shall be "in-kind" except as otherwise specified by the Village or where the existing thickness is less than the following minimum thickness(s), the minimum section (specified below) shall be placed.
 - (1) A minimum of 10-inches of dense graded base shall be placed over gravel roads.
 - (2) A minimum of 8-inches of dense graded base shall be placed over gravel road shoulders, parking areas and driveways.
- B. Asphalt pavement repairs shall be "in-kind" except as otherwise specified by the Village or where the existing pavement thickness is less than the following minimum pavement thickness(s), the minimum pavement section (specified below) shall be placed.

- (1) Existing asphalt pavement shall be replaced with a minimum of 10-inches of base aggregate dense and 5-inches of asphaltic concrete pavement (3-inch lower layer; 2-inch upper layer).
 - (2) Existing asphaltic driveways and parking areas shall be replaced with the following minimum thicknesses.
 - a. Residential – 6” aggregate base and 3” asphaltic pavement (upper layer).
 - b. Commercial / Industrial – 8” aggregate base and 4” asphaltic pavement (2.25” lower layer; 1.75” upper layer).
- C. Concrete pavement shall be replaced “in-kind” and shall be full width from joint to joint and from seam to seam unless otherwise approved by the Village. Concrete pavement replacement shall be anchored in accordance with WDOT detail S.D.D. 13 C 9-12. (Concrete Pavement Repair and Replacement).
- (1) Concrete mix shall be high early strength.
 - (2) Concrete pavement repairs of existing non-doweled concrete pavement do not need to be doweled, however, tie bars for longitudinal joints are required.
- D. Composite pavement restoration, concrete base with asphalt overlay, shall be anchored in accordance with WDOT detail S.D.D. 13 C 9-12.
- (1) Pavement repairs shall be “in-kind” except as otherwise specified by the Village or where the existing pavement thickness is less than the following minimum pavement thicknesses, the minimum pavement section (specified below) shall be placed.
 - a. Residential and commercial – 8” aggregate base, 7” concrete, and 1.75” asphaltic upper layer.
 - b. Industrial – 8” aggregate base, 8” concrete, and 1.75” asphaltic upper layer.
 - (2) Concrete mix shall be high early strength.
 - (3) Concrete pavement repairs of existing non-doweled concrete pavement do not need to be doweled, however, tie bars for longitudinal joints are required.
- E. Saw-cutting and milling shall be in neat straight lines, at right angles to the street or drive, to produce a clean joint for pavement restoration.
- F. Damaged concrete pavements and driveways, sidewalks and curb and gutter shall be removed and replaced to existing joints unless otherwise allowed by the Engineer.
- G. Roadway, curb and gutter, and sidewalk repairs shall meet Village Specifications.
- (1) See section VS-0500 for roadway, curb and gutter, and sidewalk specifications.

4.0 Lawn Restoration

- A. All damaged or destroyed grass or terrace areas shall be restored with four (4) inches minimum of topsoil, seed, mulch and/or erosion matting as specified below and as directed by the Village.
- (1) Topsoil shall comply with Section 625 of the “State Specifications”.
 - (2) Fertilizer shall comply with Section 629 of the “State Specifications”. Apply Type A fertilizer at 7 pounds per 1,000 square feet.
 - (3) Seeding shall comply with Section 630 of the “State Specifications”.
 - a. All restored lawns areas shall be seeded with mixture No. 40 and shall be distributed at a rate of four (4) pounds per 1,000 square feet unless approved by the Village.
 - (4) Mulching shall comply with Section 627 of the “State Specifications”. All seeded areas shall be mulched, unless a vegetative erosion control mat is used. Areas to be mulched with no erosion control matting shall be limited to small areas not on slopes with minimal erosion potential.
 - (5) Install erosion control mat over all restored lawn or grass areas unless approved otherwise by the Village. Erosion matting shall comply with WDNR technical standard 1052.
 - a. Erosion matting shall be Class I Type B, double netted for all areas except on residential lawns. Residential lawns in which mowing may be accomplished within a couple weeks may, shall be Class I Type B (Urban) mat.

5.0 Survey Monuments

- A. Contractor’s attention is directed to Section 2.1.4 of the “Standard Specifications” requiring the Contractor to protect survey monuments from being damaged. The Contractor shall hire a Wisconsin Registered Land Surveyor prior to removing and disturbing any survey monuments to tie in the location of these monuments prior to their removal. All damaged or disturbed survey monuments shall be replaced by a Wisconsin Registered Land Surveyor.
- B. Section Corner Monuments. The Contractor shall notify and coordinate with the County Surveyor prior to removal or disturbance of any Section Corner Monuments in order for the County Surveyor to tie in these monuments prior to their removal.

END OF SECTION

**VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS
VS-0603 MANHOLE AND VALVE ADJUSTMENTS (EXISTING UTILITIES)**

1.0 Section Description

- A. This section includes requirements for adjusting existing manholes and water valves. This section pertains to adjustments on existing utilities. New manholes shall be constructed in accordance with Sections VP-0200 and VP-0300 and Village standard details.
- B. Related Sections Include:
 - (1) Section VS-0100 General Terms and Conditions
 - (2) Section VS-0200 Sanitary Sewer
 - (3) Section VS-0300 Storm Sewer
 - (4) Section VS-0400 Water Main
 - (5) Section VS-0601 Backfilling Utility Trenches
 - (6) Section VS-0602 Site Restoration and Surface Replacement

2.0 Manhole Adjustment Using Adjustment Rings (Existing Manholes)

- A. The Contractor shall adjust existing manhole castings to grade by adding or removing adjusting rings. Manholes requiring less than 3-inches or more than 8-inches of adjusting rings between the frame and manhole cone or flat top shall be reconstructed to grade in accordance with Subsection 1611.1.B. of these Special Provisions. After removing the manhole casting and all existing rings, the Contractor shall clean the casting, manhole, and adjusting ring mating surfaces to remove all loose mortar and other substances. The Contractor shall take precautions to prevent gravel and other materials from entering the manhole. All materials falling into the manhole shall be removed by the Contractor. Adjusting rings shall match the dimensions of the existing structure. If existing rings are not the same dimensions as the existing structure the rings or are damaged they must be replaced with new adjusting rings of the correct size.
- B. Adjusting rings shall be furnished and installed by the Contractor and shall be one of the following:
 - (1) Concrete rings with one line of steel centered within the ring. Adjusting rings shall be set with butyl rubber sealant troweled into a 1/4 inch thick layer over the entire mating surface of the top of cone and all adjusting rings. Contractor shall take care to prevent the butyl rubber sealant from getting on the interior surface of the rings within the chimney. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade or equal.
 - (2) High Density Polyethylene (HDPE) adjustment rings as manufactured by Ladtech, Inc., Lino Lakes, Minnesota, or approved equal. Install per manufactures recommendations and instructions.

- (3) Expanded Polypropylene adjustment rings (Pro-Ring) as manufactured by Cretex Specialty Products, Waukesha, Wisconsin, or approved equal. Install per manufactures recommendations and instructions.
- C. Manhole frames shall be set with butyl rubber sealant troweled into a 1/4 inch thick layer over the entire mating surface of the frames and adjusting rings. Contractor shall take care to prevent the butyl rubber sealant from getting on the interior surface of the rings and frame within the chimney. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade or equal.
- D. The top of manhole castings shall be set 1/4 inch below the newly finished asphalt surfaces, finished grade of concrete pavement, or elevations per the plan within grass or lawn areas. Casting shall be placed at the same slope as the adjacent finished surface.
- E. External Chimney Seal
 - (1) An external sealing wrap shall be placed on the entire manhole chimney from the casting to the 6-inches below the top of the manhole cone section and installed in accordance with the manufacturer's instructions. The external sealing wrap shall be EZ-WRAP, as manufactured by Press-Seal Gasket Corporation, or approved equal.

3.0 Manhole Adjustments -Reconstruction (Existing Manholes)

- A. Manholes that cannot be brought up to grade by adding or removing adjusting rings shall be adjusted to grade in accordance with the following procedures:
 - (1) Remove casting, rings, cone section, and riser section(s) as required.
 - (2) Place new riser section(s) and/or cone section, 3" to 8" of concrete adjusting rings and reset casting to grade. Salvaged materials in satisfactory condition may be reused if approved by Village.
- B. All manhole adjustments shall be constructed in accordance with Chapter 3.5.0 and File No. 12 and 15 of the "Standard Specifications" and these Special Provisions.
 - (1) Manhole steps shall be OSHA approved and fabricated using 3/8-inch minimum diameter steel reinforcing rod molded plastic covering. Manhole step placement shall be such that the first step is located a maximum distance of 18-inches from the manhole rim.
 - (2) Joints for precast manhole riser sections shall be made with rubber "O"-ring gaskets, a continuous ring of butyl rubber sealant (EZ-Stick or Kent-Seal in rope form) or equal except that joints for storm sewer manholes may also be made with mortar. The butyl sealant shall be 1-inch diameter equivalent or as recommended by the manhole manufacturer.
 - a. An external sealing wrap shall be placed at all joints between pre-cast manhole sections. The external sealing wrap shall meet, or exceed, the requirements of

ASTM C-877, Type III. External joint seals shall be EZ-WRAP, as manufactured by Press-Seal Gasket Corporation, or approved equal.

4.0 Backfill for Manhole Adjustments

- A. Manhole Adjustments using adjustment rings.
 - (1) Manholes located within pavement areas shall be backfilled using slurry unless otherwise approved to use granular backfill by the Village.
 - (2) Manholes located in lawn or grass areas shall be backfilled with granular material except for the top four inches which shall be topsoil.
- B. Manhole Adjustments-Reconstruction.
 - (1) Manholes located within pavement areas shall be backfilled with slurry.
 - (2) Manholes located within lawn or grass areas shall be backfilled with granular material except for the top four inches which shall be topsoil.
- C. Refer to Section VS-0601 Backfilling Utility Trenches for additional backfill requirements.

5.0 Valve Box Adjustments

- A. The Contractor shall adjust valve boxes to grade by screwing or sliding the valve box top section to the required elevation.
 - (1) If the valve box cannot be adjusted to grade by screwing or adjusting the top section the top section must be removed and replaced with a taller section. Valve boxes must be installed with the bell section above the spigot so that soil cannot drop into the threads. Internal extensions are not permitted.
- B. The Contractor shall coordinate with the Village Public Works Department regarding inspection of all valves and valve boxes, including hydrant valves, to ensure valve boxes are clean, valve nuts are accessible and valve is operational.
- C. Valve boxes shall be set 1/4 inch below the newly finished asphalt and concrete pavement surfaces or at finished grade of grass or lawn areas.

END OF SECTION

**VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS
VS-0700 STREET TREES**

1.0 Section Description

- A. This section includes requirements for street tree installation.
- B. Related Sections Include:
 - (1) Section VS-0100 General Terms and Conditions.
 - (2) Section VS-0602 Site Restoration and Surface Replacement.

2.0 Street Trees

- A. Street tree species shall be approved by the Village. Approved street tree species are listed below.

<u>Botanical name</u>	<u>Common Name</u>
Acer x freemanii	Autumn Blaze Maple
Ulmus x 'Morton Glossy'	Elm (Triumph or Accolade)
Gleditsia triacanthos	Honeylocust
Syringa reticulata	Japanese Tree Lilac
Gymnocladus dioicus	Kentucky Coffeetree
Tilia cordata	Littleleaf Linden
Pyrus calleryana	Ornamental Pear (Chanticleer & Autumn Blaze)
Ginkgo biloba	Princeton Sentry Ginkgo
Acer rubrum 'October Glory'	Red Maple
Tillia x euchlora	Redmond Linden
Quercus rubra	Red Oak
Tillia Tomentosa	Silver Linden
Acer miyabei 'Morton'	Miyabe Maple – State Street

- B. Tree species tags shall be on the tree when delivered for inspection.
- C. All species shall be true to name and type and first class representatives of their species or variety. Trees of lower class quality will not be accepted.

3.0 Locations

- A. Street tree locations as shown on the Village approved landscaping plan are general locations. The Contractor shall mark or stake the actual tree locations based on field conditions for Village review and concurrence, prior to installation.
- B. Street trees are generally spaced 50-feet on center and 7-feet back of curb, unless planned otherwise.
- C. Street trees shall not be placed on the common lot line between two properties. Trees must favor one lot to avoid landowner maintenance responsibility disputes.

- D. Street trees shall be placed a minimum of 10 feet from any fire hydrant, 7 feet from any driveway, and shall not block road signage.

4.0 Tree Planting

- A. Trees shall have a minimum diameter of 2-inches and a minimum height of 6-feet above the ground when planted.
- B. All plantings shall receive a 3-year slow release fertilizer packet (or equal) at a rate of 2 per caliper inch of tree.
- C. Topsoil backfill shall be topsoil that is fertile friable natural loam surface soil reasonably free from subsoil, clay lumps, brush, weeds, and other liter, and free of roots stumps, stones larger than 1-inch and other extraneous toxic matter harmful to plant growth.
- D. All trees shall be top dressed with a minimum of four inches of shredded hardwood mulch.
- E. Trees shall be planted plumb as possible and the Contractor shall maintain tree plumbness throughout the warranty period. Trees shall have 3-anchor assemblies. Anchor assemblies shall be removed within or upon the warranty period.
- F. Trees shall be watered immediately after installation.
- G. Installation shall be in accordance with the tree planting detail.

5.0 Tree Establishment, Warranty, and Replacement

- A. The tree establishment and warranty period shall be 2-year from final acceptance of all the plantings, unless a longer warranty period is established per separate agreement or plan approval conditions.
- B. Initial maintenance services, including watering, for trees shall be provided by the Contractor. Maintenance shall begin immediately after trees are installed and shall continue throughout the warranty period until trees are acceptably healthy and well established but not less than the warranty period.
- C. Trees that are not acceptably healthy during the warranty period shall be replaced, at the cost of the Contractor / Developer. The warranty period for tree replacements shall be extended for additional 1-year period. Tree replacement(s) and warranty period extensions shall continue until such time that an acceptably healthy tree is established.
- D. Following the warranty period, street tree maintenance obligations becomes the responsibility of the abutting landowner, unless a separate agreement has been entered into for ongoing maintenance and tree replacement.

END OF SECTION

**VILLAGE STANDARD CONSTRUCTION SPECIFICATIONS
VS-0800 STREET LIGHTS**

1.0 Section Description

- A. This section includes requirements for street lighting materials and construction.
- B. Related Sections Include:
 - (1) Section VS-0100 General Terms and Conditions

2.0 Materials

- A. Street lighting materials shall comply with the provisions of Section 651 (General Requirements for Electrical Work, 652 (Electrical Work), 653 (Pull Boxes and Junction Boxes), 654 (Bases), 655 (Electrical Wiring), Section 656 (Electrical Service), 657 (Poles, Arms, Standards, and Bases), and 659 (Lighting) of the “State Specifications,” as modified below.
 - (1) All electrical splices to be made with weatherproof/underground wire nuts.
 - (2) Junction boxes and pull boxes shall be Quazite® underground enclosures manufactured by Hubbell Lenoir City, Inc. or approved equal.
 - (3) Poles and LED luminaires shall be furnished as noted on the plans.

3.0 Construction

- A. Construct the light poles and luminaires (lighting standard) in accordance with the “State Specifications,” plan details and the manufactures recommendations where applicable.
- B. All electrical splices to be made with weatherproof/underground wire nuts.
- C. In the meter breaker pedestal if only one grounding electrode is required, mechanically connect the stranded copper wire to it and then connect the grounding lug.
- D. Where two or more cables networks occupy the same pull box, manhole, etc., bundle and tag each circuit network (i.e. A/B/N) with approved all-weather tags.
- E. At each pull point or access point, indicate the line side bundle with a lap of blue tape.
- F. Install all buried wiring within PVC conduit.

- G. Notify the Village of Pleasant Prairie Building Inspection Department and request an inspection at least 2 business days before the date of the required inspection. In the event of deficiencies, request a re-inspection when the work is corrected. The Village electrical inspection will not authorize turn-on until the contractor corrects all deficiencies.

END OF SECTION

SECTION 6
VILLAGE STANDARD DETAILS

Listing of Standard Details / Detail Revision Date

Sanitary Sewer

- SAN-1: Standard Sanitary Manhole / 11-10-15
- SAN-2: Standard Sampling Manhole / 11-10-15)
- SAN-2A: Palmer-Bowlus Flume Detail (1 of 2) / 11-18-15
- SAN-2B: Palmer-Bowlus Flume Detail (2 of 2) / 11-16-16
- SAN-3 Flexible Riser To Flexible Main – Shallow Sewers / 11-16-15
- SAN-4: Flexible Riser To Flexible Main (8' through 18") - Deep Sewers / 11-16-15
- SAN-5: Flexible Riser To Flexible Main (21" and larger) - Deep Sewers / 12-2-15

Storm Sewer

- STM-1: Standard Storm Manhole / 12-1-15
- STM-2: Standard Storm Manhole w/ Curb Inlet / 12-1-15
- STM-3: Precast Rectangular Catch Basin / 12-1-15
- STM-4: Standard Beehive Inlet / 12-3-15
- STM-5: Standard Pipe Grate / 12-2-15
- STM-6: Rip-Rap Treatment at Endwalls / 12-2-15
- STM-7: HDPE to RCP (Belled End) Connection Detail / 2-20-14

Water Main

- W-1: Standard Hydrant Assembly / 11-16-15
- W-2: Air Release Hydrant Assembly / 11-16-15
- W-3: Standard Gate Valve Box Setting / 11-16-15
- W-4: Standard Butterfly Valve Box Setting / 11-16-15
- W-5: Buttress For Bends / 10-23-15
- W-5A: Buttress For Tees / 10-23-15

- W-5B: Buttress For Dead Ends / 10-23-15
- W-6: Hydrant offsets / 12-10-15
- FD-1: Fire Department Pumper Pad FDC / 3-2-16

Tracer Wire

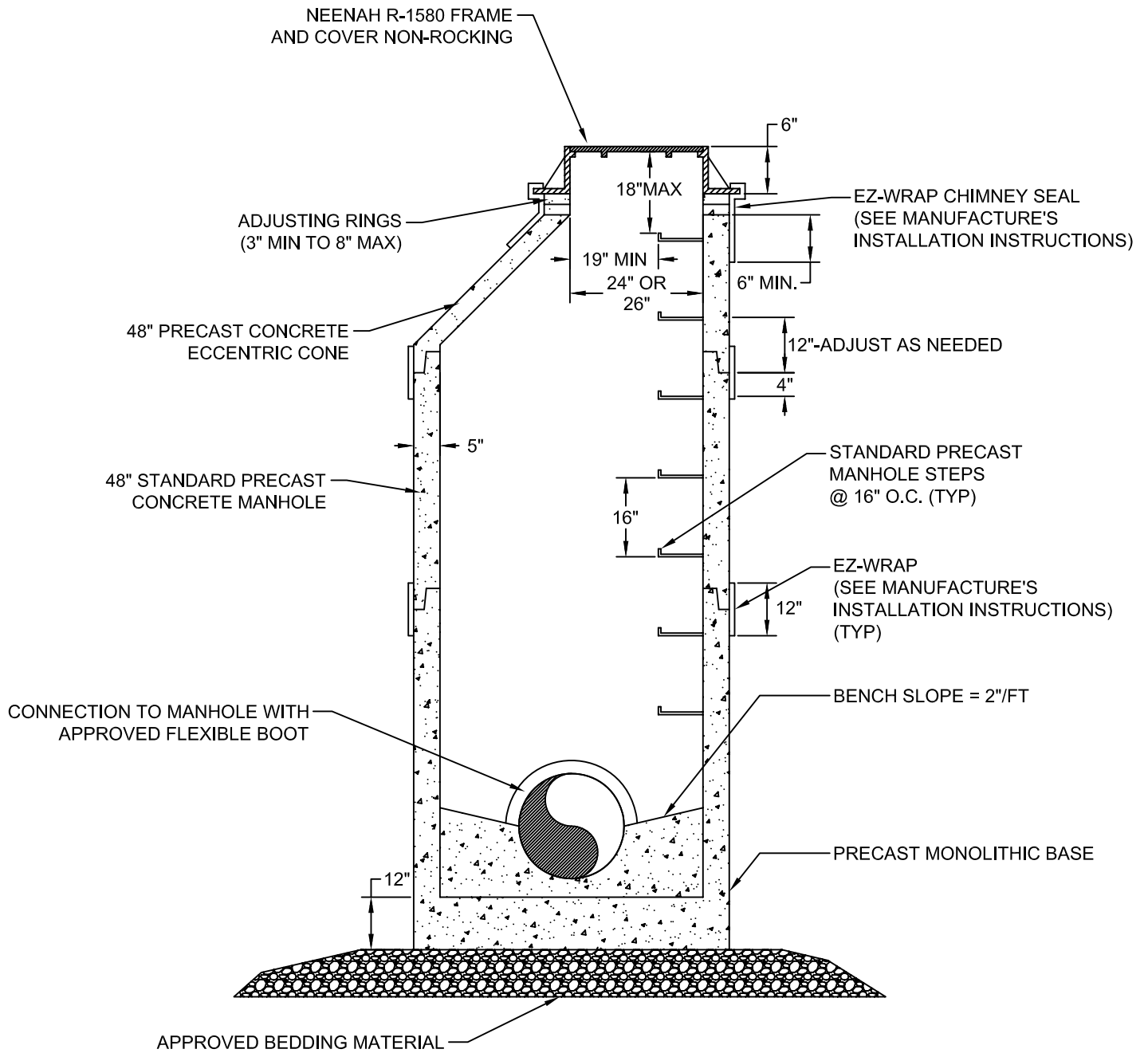
- TW-1: Standard Tracer Wire Access "Pull-Box" / 12-3-15

Roadway

- RD-1: Standard Residential Minor Street Section / 12-2-15
- RD-2: Standard Residential / Commercial Collector Street Section / 11-18-15
- RD-3: Standard Industrial Street Section / 12-1-15
- RD-4: Standard Residential Boulevard Section / 10-19-15
- RD-5: Standard Residential Cul-De-Sac Detail / 12-1-15
- RD-6: Temporary Cul-De-Sac Turnaround Detail / 12-1-15
- RD-7: Standard "Private" Minor Residential Street Section / 12-1-15
- RD-8: Standard "Private" Residential Minor Street Cul-De-Sac Detail / 12-1-15
- RD-9: Standard Curb and Gutter Details / 12-1-15
- RD-10: Standard Concrete Sidewalk Detail / 12-1-15
- RD-11: Standard Asphalt Pedestrian Path Detail / 12-1-15
- RD-12: Standard Concrete Drive Approach (Mountable Curb) / 12-1-15
- RD-13: Standard Concrete Drive Approach (Vertical Curb) / 12-1-15
- RD-14: Edgedrain in Urban Roadway Detail / 12-2-15
- RD-15: Utility Patch Detail (Composite and Concrete Roadways) / 2-10-16
- RD-16: Utility Patch Detail (Asphalt Roadways) / 2-10-16

Landscaping

- L-1: Standard Street Tree Planting Detail / 11-11-15
- L-2: Standard Shrub Planting Detail / 11-18-15



NOTE: REFER TO VILLAGE STANDARD SPECIFICATIONS FOR SANITARY SEWER.

SCALE: NTS

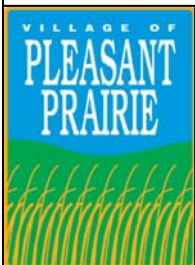
STANDARD SANITARY MANHOLE

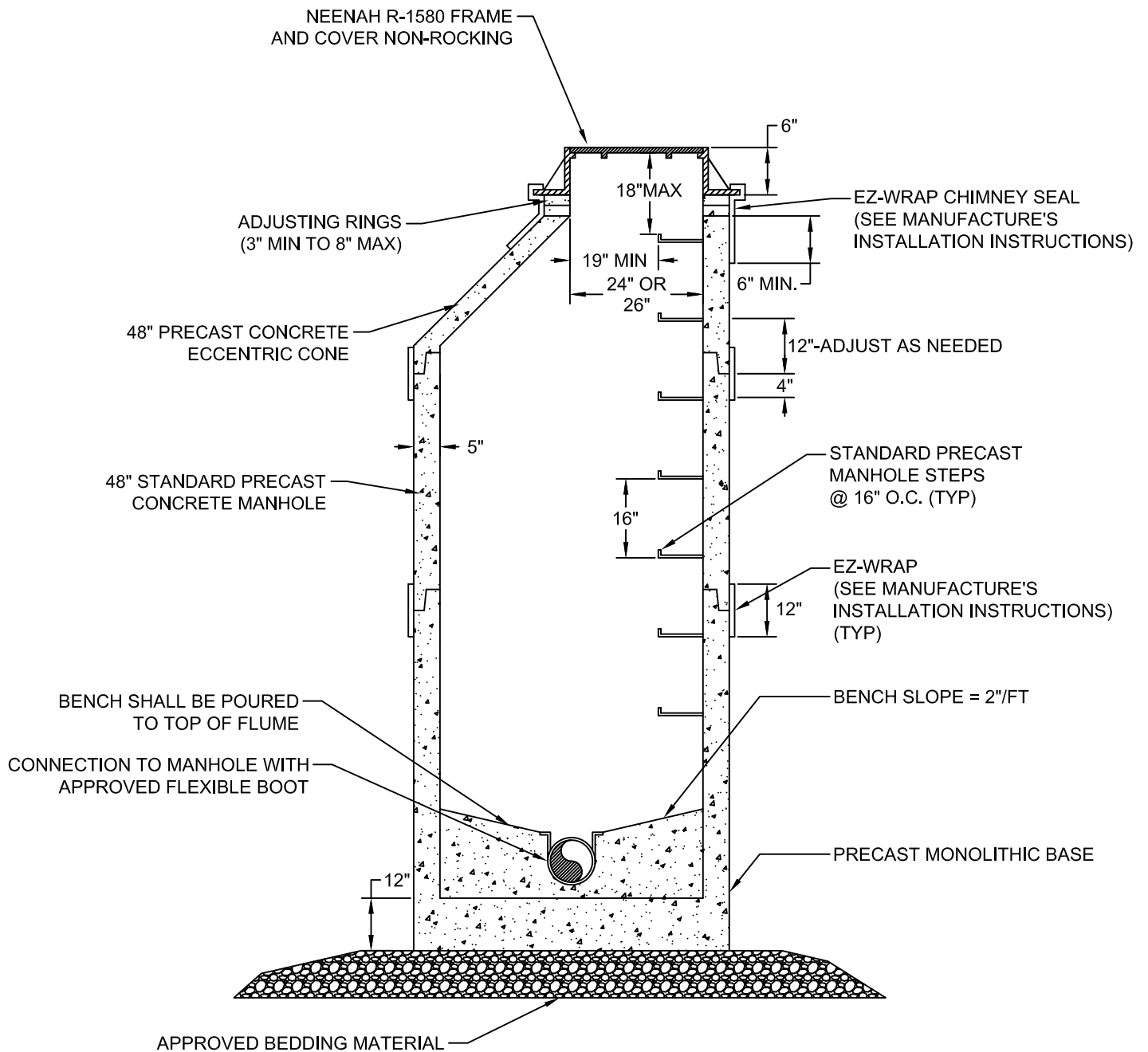
DETAIL: SAN - 1

CREATED: 11-21-12

REVISED: 11-10-15

APPROVED BY: MATT FINEOUR

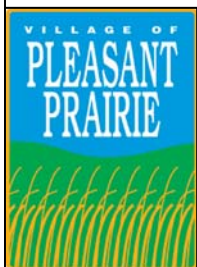




NOTES:

1. STANDARD SAMPLING MANHOLE SHALL HAVE A PALMER-BOWLUS FLUME WITH INTEGRAL APPROACH INSTALLED.
2. VILLAGE OF PLEASANT PRAIRIE DPW SHALL BE CONTACTED FOR FINAL INSPECTION OF SAMPLING MANHOLES.
3. SEE DETAIL SAN-2A AND SAN-2B FOR PALMER-BOWLUS FLUME DETAILS.
4. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR SANITARY MANHOLES.

SCALE: NTS



STANDARD SAMPLING MANHOLE

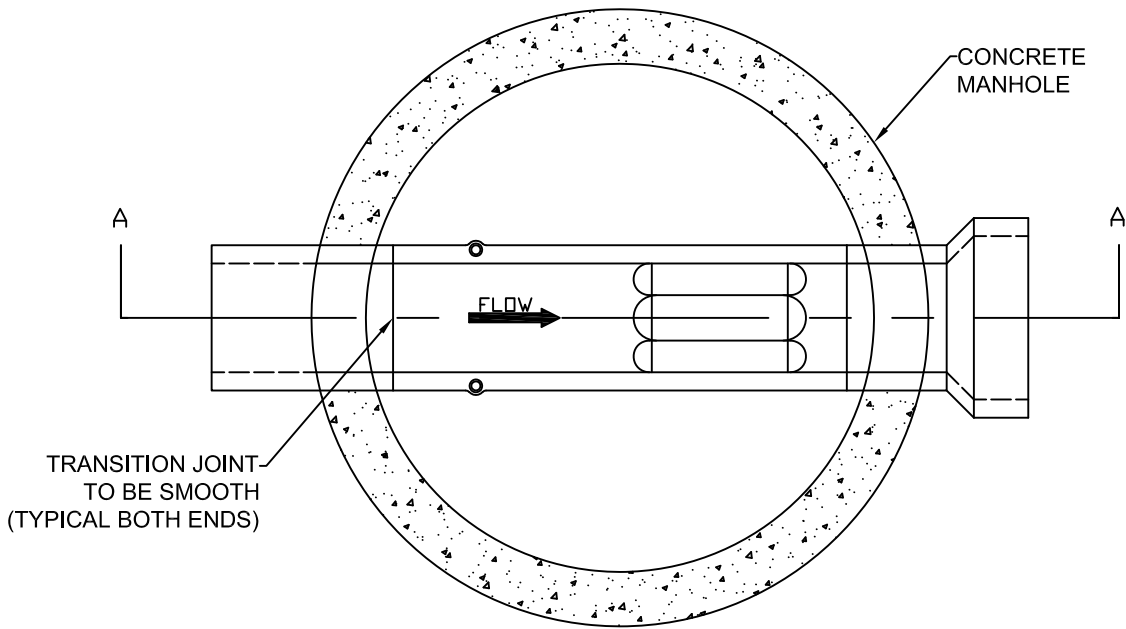
DETAIL: SAN - 2

CREATED: 11-21-12

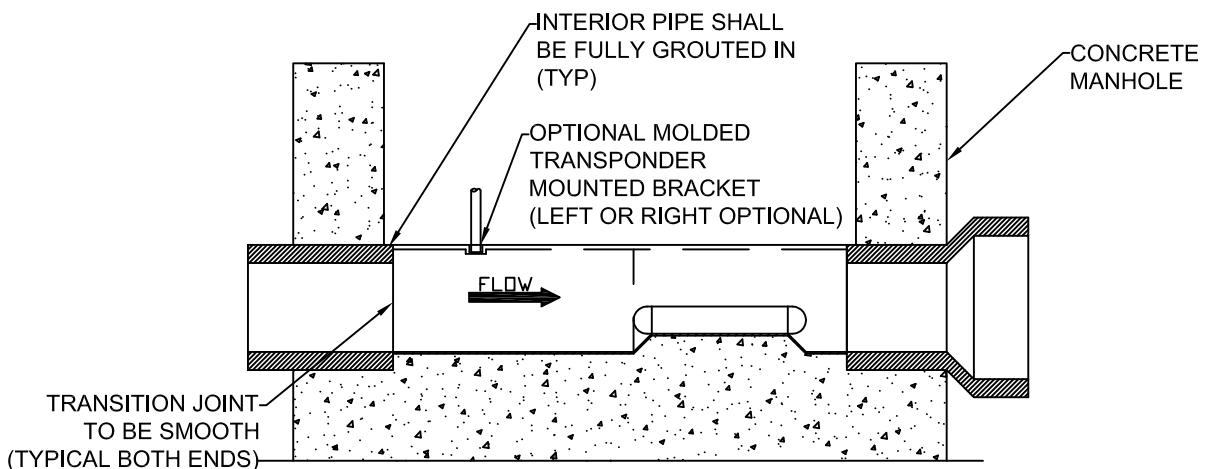
REVISED: 11-10-15

APPROVED BY: MATT FINEOUR





TOP VIEW OF MANHOLE WITH FLUME



SECTION A - A ENLARGED

NOTE:

1. FLUME SHALL BE SET LEVEL INSIDE THE MANHOLE FOR PROPER TESTING PROCEDURES.
2. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR SANITARY SEWER.

SCALE: NTS



**PALMER-BOWLUS FLUME DETAIL
(1 OF 2)**

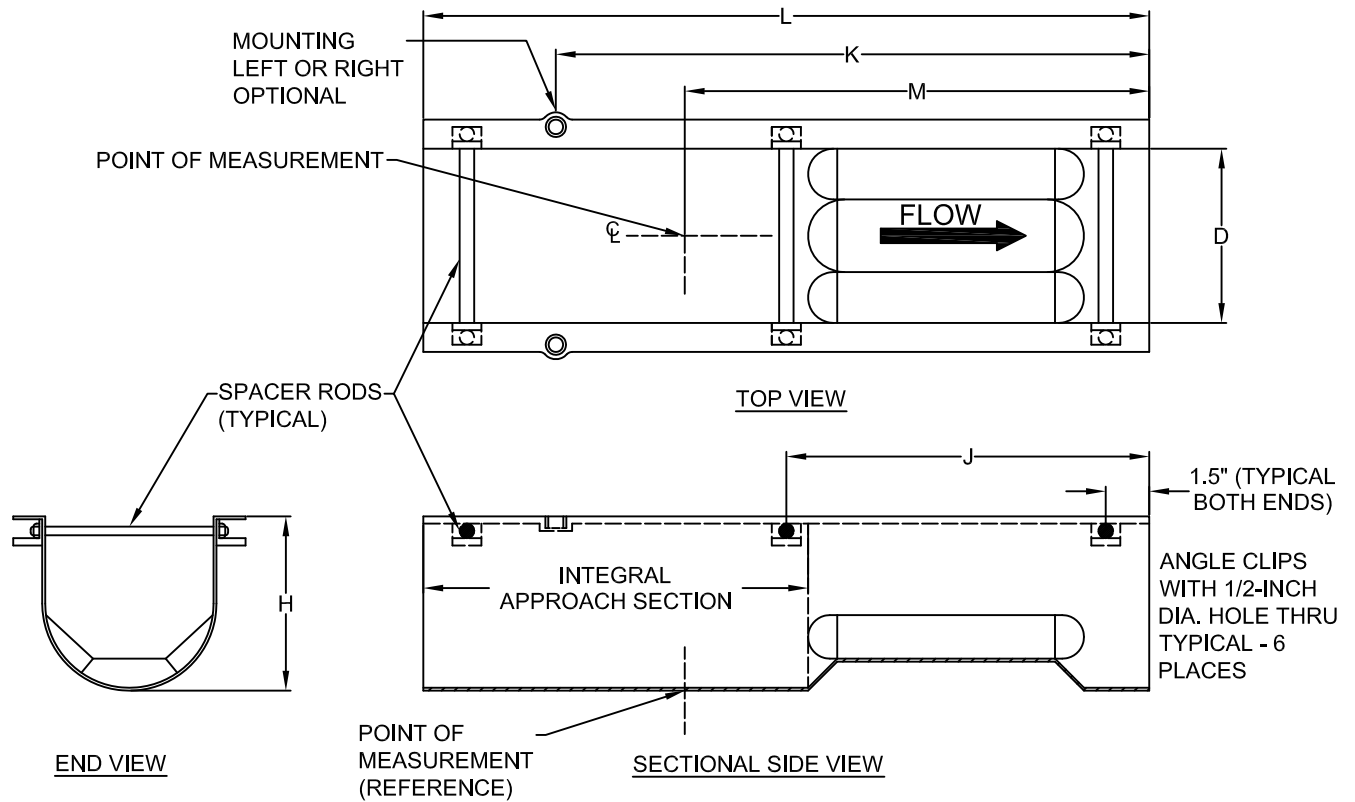
DETAIL: SAN - 2A

CREATED: 11-21-12

REVISED: 11-18-15

APPROVED BY: MATT FINEOUR





DIMENSIONS TABLE

PIPE SIZE	D	H	M	K	J	L
4	4	6	11	15 7/16	6 1/2	17
6	6	8	16	20 7/16	12 1/2	25
8	8	10	21	25 7/16	16 1/2	33
10	10	12	26	30 7/16	20 1/2	41
12	12	14	31	35 7/16	24 1/2	49
15	15	17	38 1/2	42 15/16	30 1/2	61
18	18	20	46	50 7/16	36 1/2	73
21	21	23	53 1/2	57 15/16	42 1/2	85
24	24	26	61	65 7/16	48 1/2	97
27	27	29	68 1/2	72 15/16	54 1/2	109
30	30	32	76	80 7/16	60 1/2	121

NOTES:

1. DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
2. DIMENSIONS PROVIDED FOR REFERENCE ONLY.

SCALE: NTS

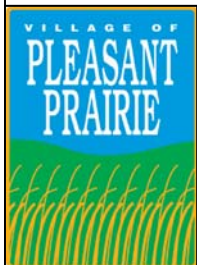
**PALMER-BOWLUS FLUME DETAIL
(2 OF 2)**

DETAIL: SAN - 2B

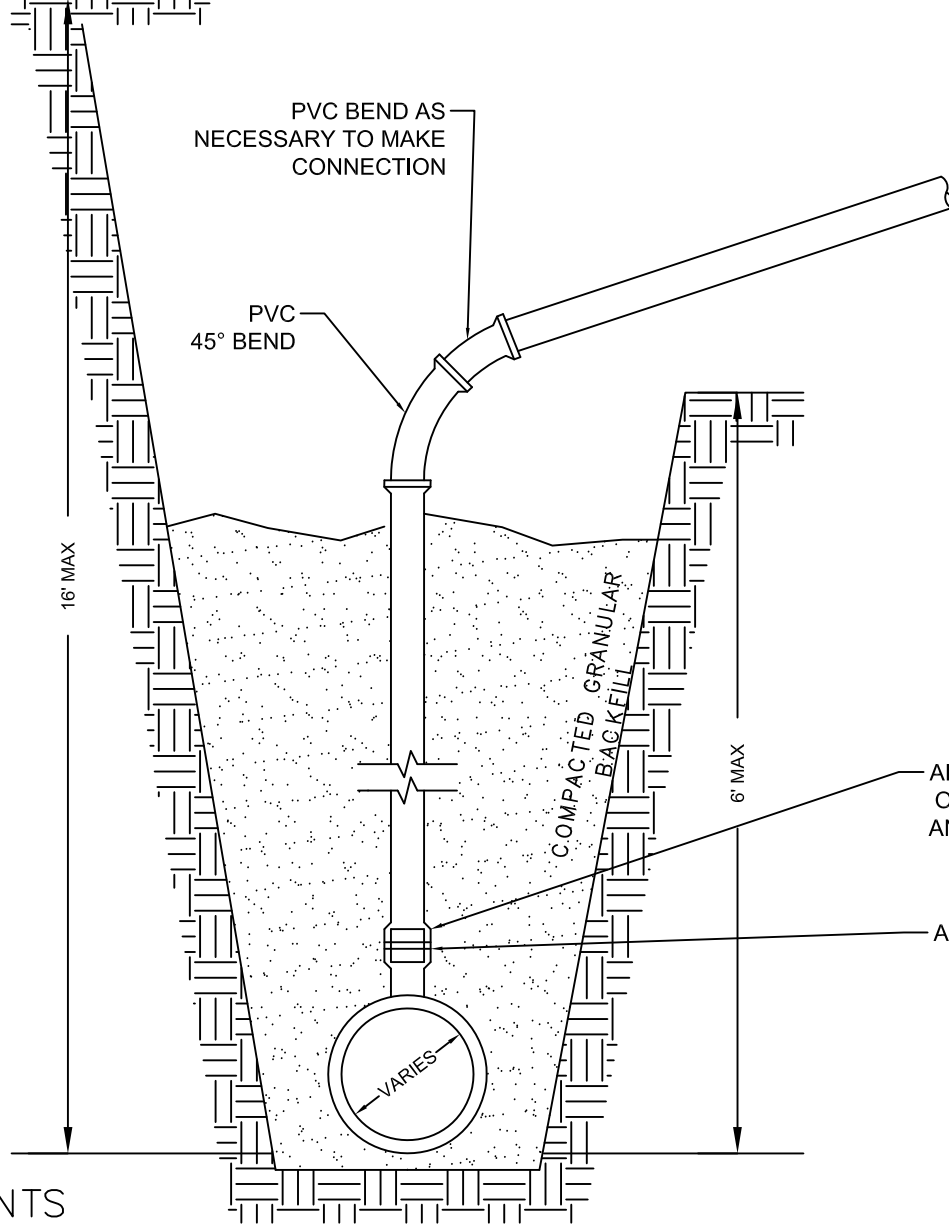
CREATED: 11-21-12

REVISED: 11-16-15

APPROVED BY: MATT FINEOUR



GROUND SURFACE



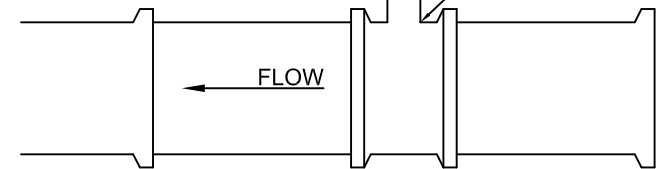
NOTE:

- 1. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR SANITARY SEWER

APPROVED RISER ADAPTER
OR INSTALL SHORT NIPPLE
AND PROVIDE BELL TO BELL
COUPLING.

APPROVED WATERTIGHT
JOINT

APPROVED FLEXIBLE
PREFABRICATED TEE



SCALE: NTS

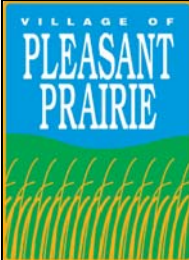
FLEXIBLE RISER TO FLEXIBLE MAIN - SHALLOW SEWERS

DETAIL: SAN - 3

CREATED: 1-30-14

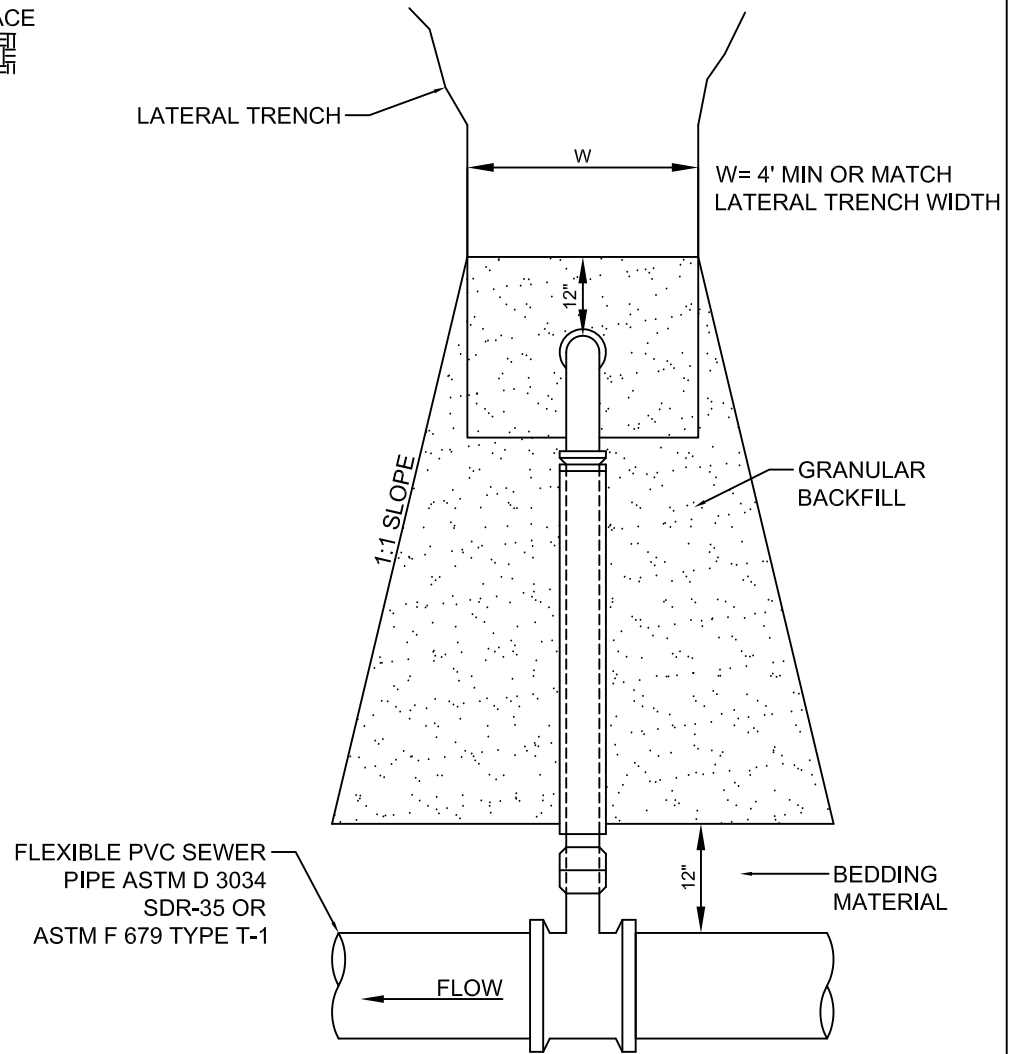
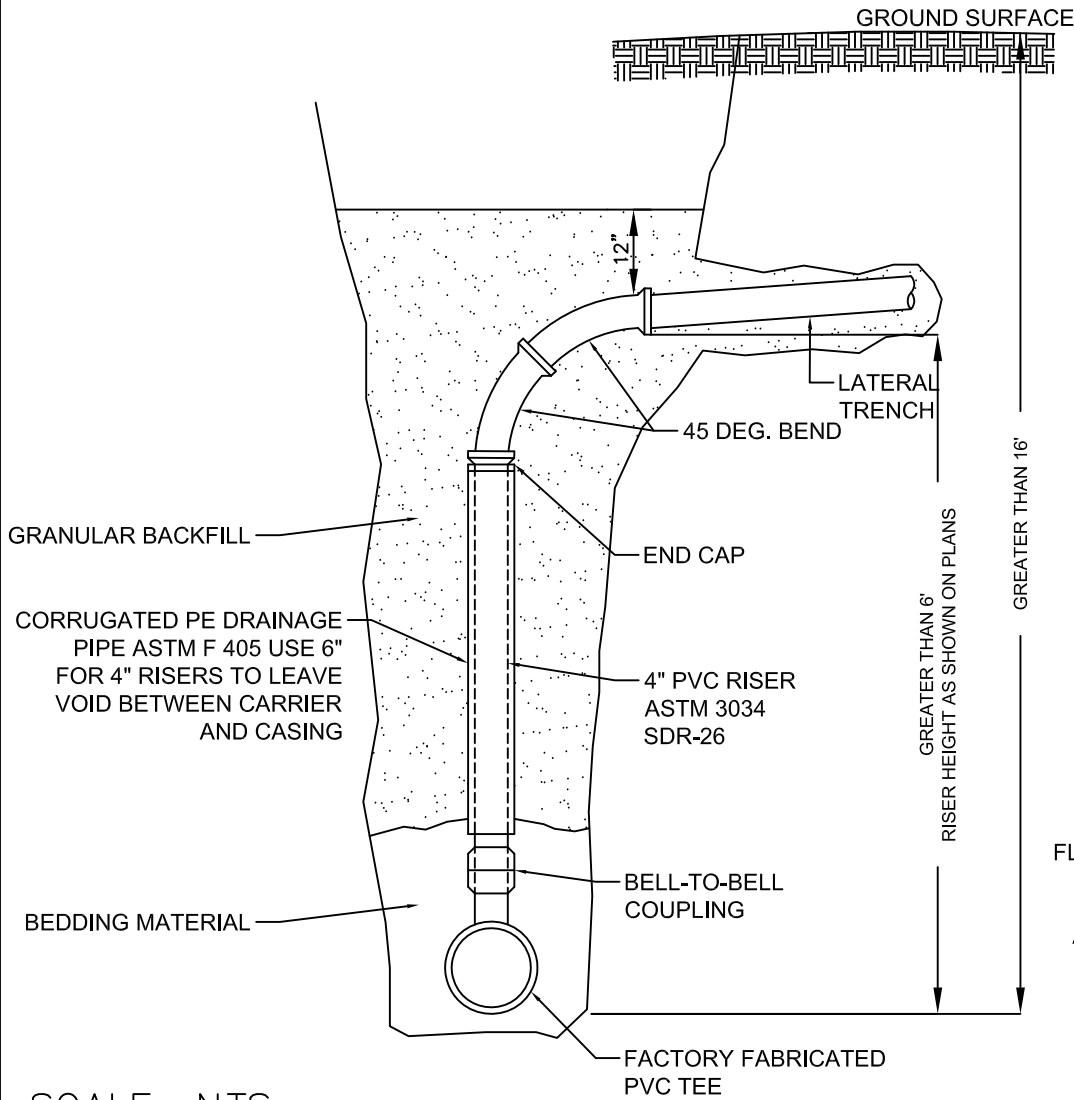
REVISED: 11-16-15

APPROVED BY: MATT FINEOUR



NOTE:

- REFER TO VILLAGE STANDARD SPECIFICATIONS FOR SANITARY SEWER.



SCALE: NTS

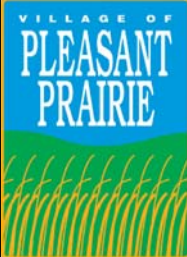
FLEXIBLE RISER TO FLEXIBLE MAIN (8" THRU 18") - DEEP SEWERS

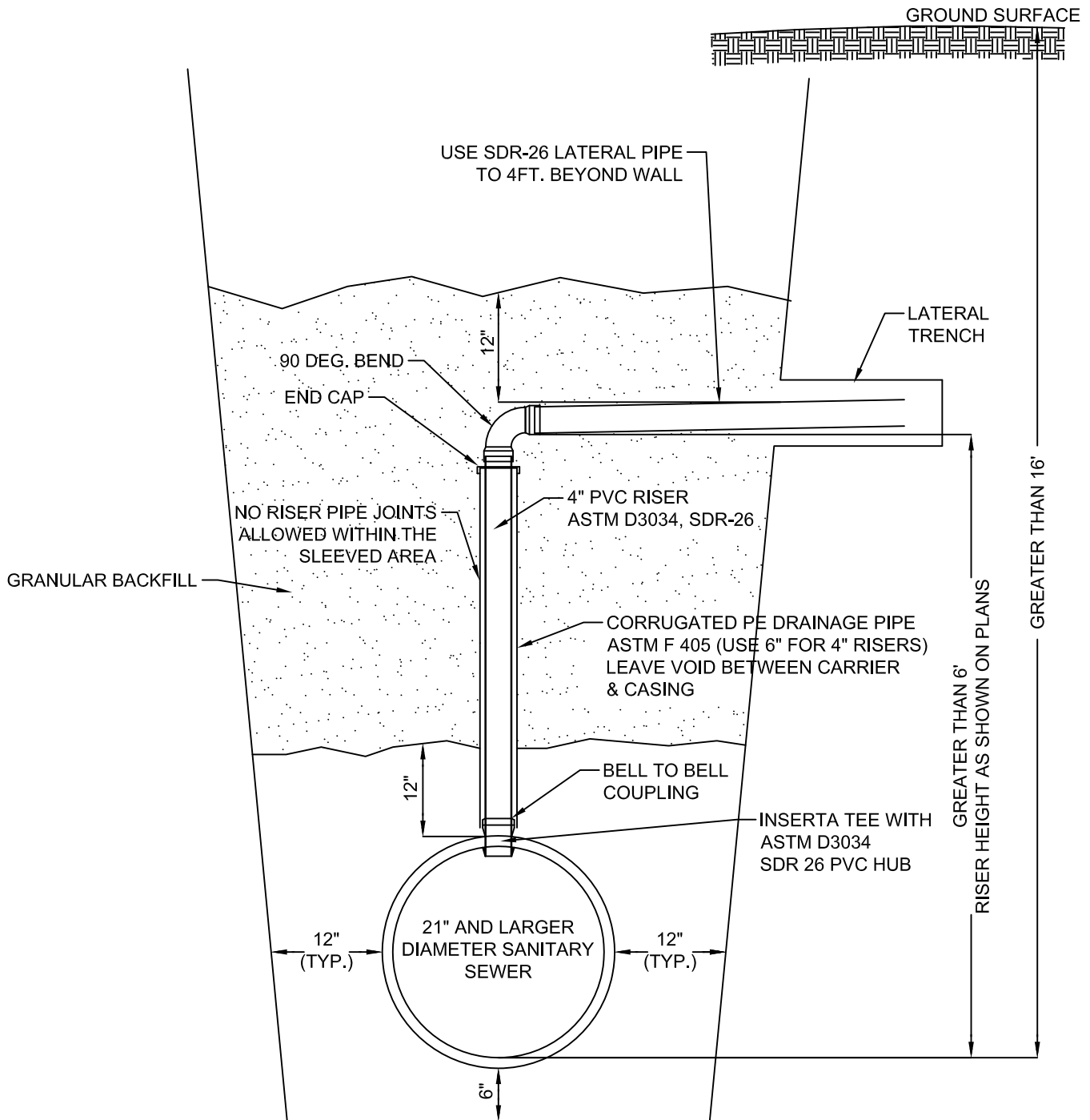
DETAIL: SAN - 4

CREATED: 1-30-14

REVISED: 11-16-15

APPROVED BY: MATT FINEOUR





NOTE: REFER TO VILLAGE STANDARD SPECIFICATIONS FOR SANITARY SEWER

SCALE: NTS

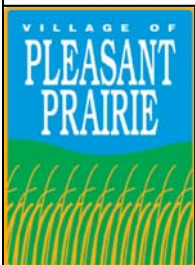
FLEXIBLE RISER TO FLEXIBLE MAIN (21" & LARGER) - DEEP SEWERS

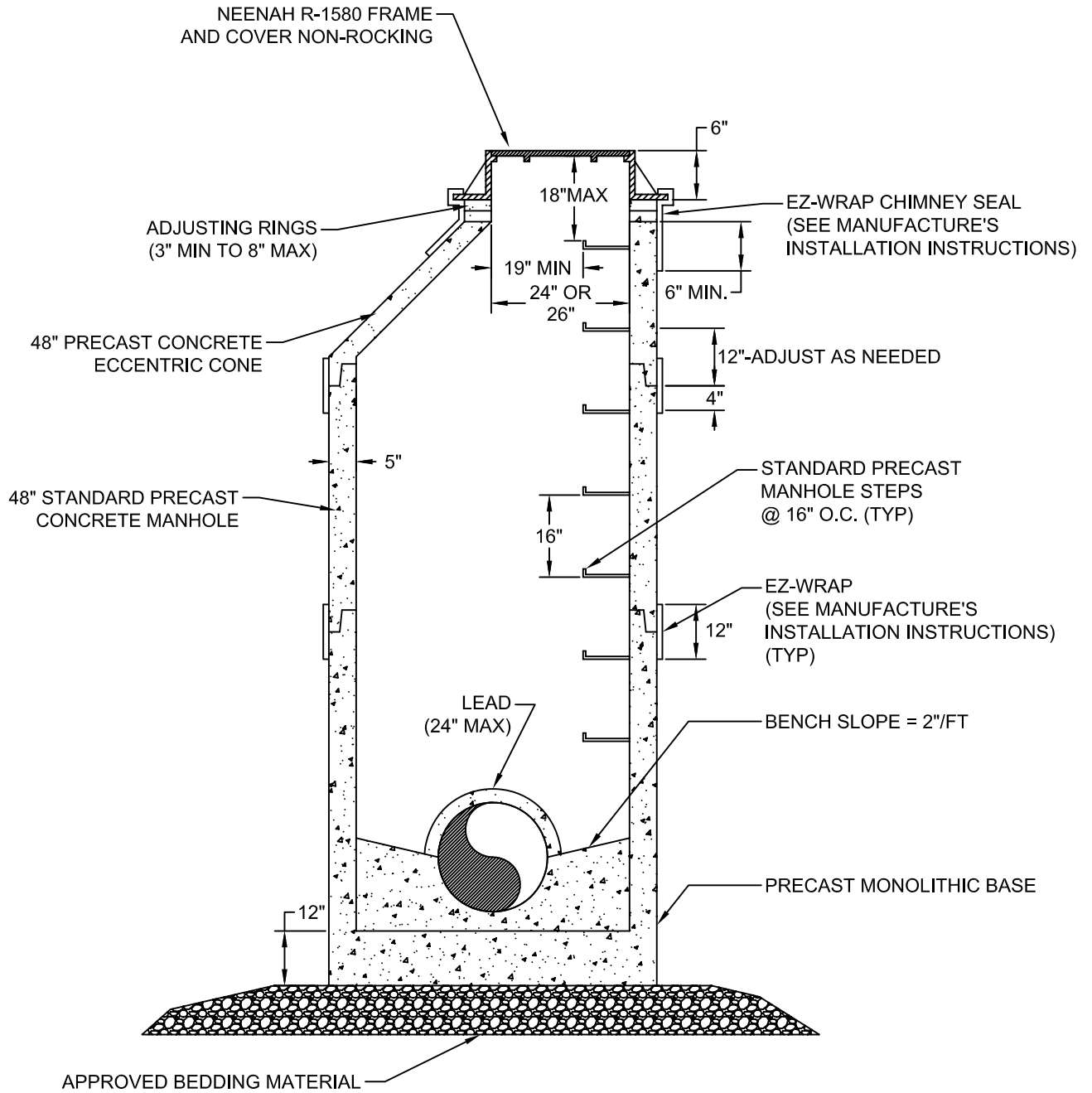
DETAIL: SAN - 5

CREATED: 1-30-14

APPROVED BY: MATT FINEOUR

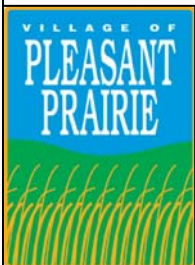
REVISED: 12-2-15





NOTE: REFER TO VILLAGE STANDARD SPECIFICATIONS FOR STORM SEWER.

SCALE: NTS



STANDARD STORM MANHOLE

DETAIL: STM - 1

CREATED: 11-21-12

REVISED: 12-1-15

APPROVED BY: MATT FINEOUR



NEENAH R-3067 CURB INLET FRAME, TYPE "L" GRATE OR
NEENAH R-3501-R FRAME AND GRATE, MOUNTABLE CURB

ADJUSTING RINGS
(3" TO 12") WITH
MAXIMUM OF 4 RINGS

ADJUSTABLE

TOP SECTION WITH
RECTANGULAR OPENING
SIZED TO MATCH
SPECIFIED FRAME AND
GRATE

EZ-WRAP CHIMNEY SEAL
(SEE MANUFACTURE'S
INSTALLATION INSTRUCTIONS)

48" STANDARD
PRECAST CONCRETE
MANHOLE

STANDARD PRECAST
MANHOLE STEPS
@ 16" O.C. (TYP)

12" MIN

EZ-WRAP
(SEE MANUFACTURE'S
INSTALLATION INSTRUCTIONS)
(TYP)

BENCH SLOPE = 2"/FT
(POURED IN FIELD)

12"

INTEGRAL BASE

APPROVED BEDDING MATERIAL

NOTE: REFER TO VILLAGE STANDARD SPECIFICATIONS FOR STORM SEWER

SCALE: NTS

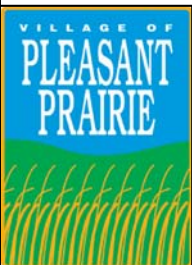
STANDARD STORM MANHOLE WITH CURB INLET

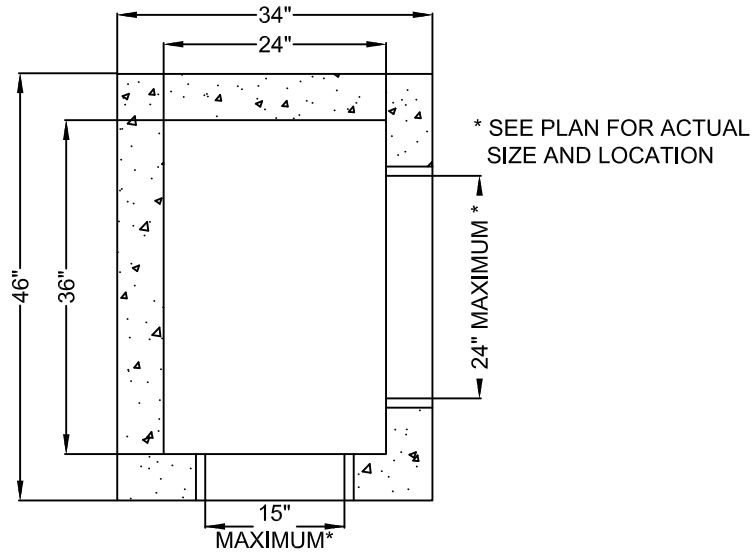
DETAIL: STM - 2

CREATED: 9-23-04

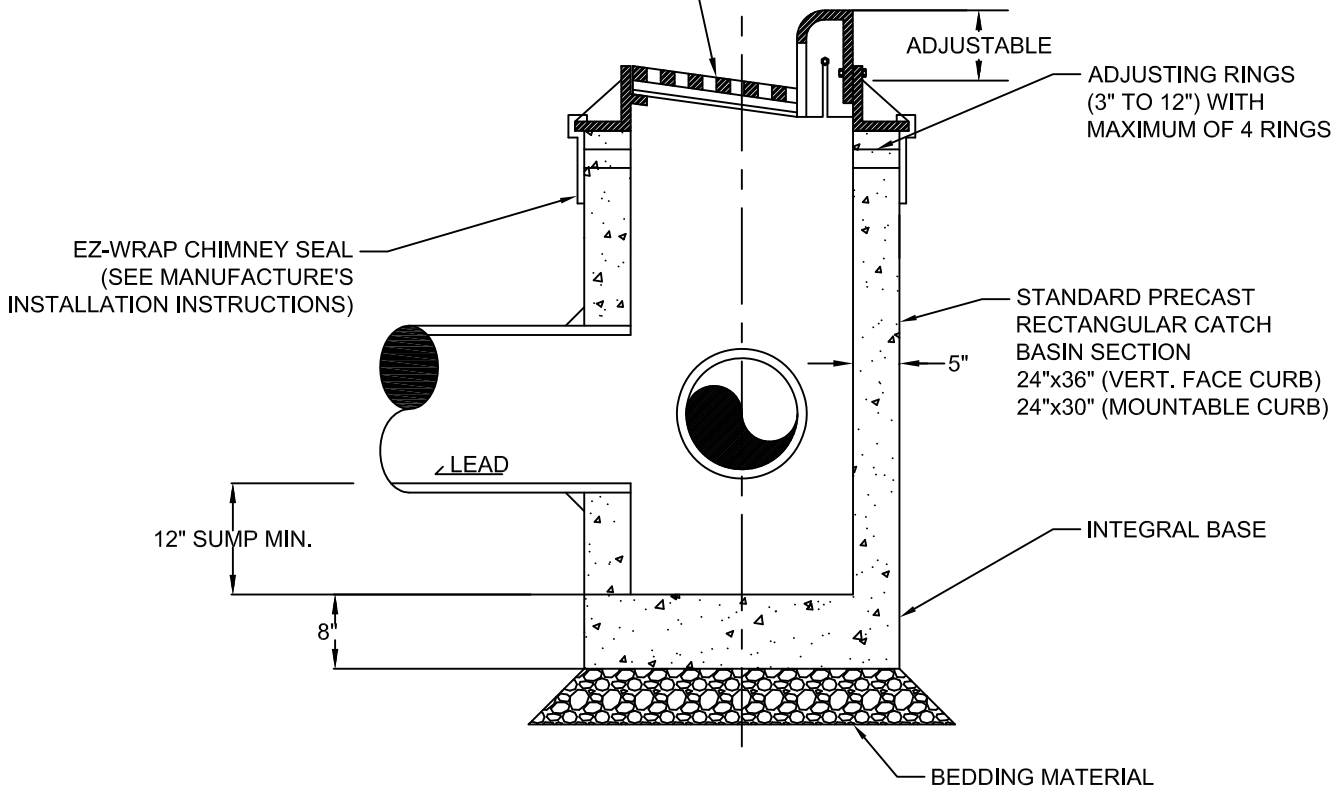
REVISED: 12-1-15

APPROVED BY: MATT FINEOUR





NEENAH R-3067 CURB INLET FRAME, TYPE "L" GRATE OR NEENAH R-3501-R FRAME AND GRATE, MOUNTABLE CURB



NOTES:

1. NON-SHRINKING MOTAR REQUIRED (TYP)-STORM CONNECTIONS, ADJUSTING RINGS, ECT.
2. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR STORM SEWER

SCALE: NTS

PRECAST RECTANGULAR CATCH BASIN

DETAIL: STM - 3

CREATED: 12-14-04

REVISED: 12-1-15

APPROVED BY: MATT FINEOUR



NEENAH R-2560-E BEEHIVE
FRAME AND GRATE IN LAWN AREAS

ADJUSTING RINGS
(3" - 12") WITH
MAXIMUM OF 4 RINGS

PRECAST CONCRETE
ECCENTRIC CONE

EZ-WRAP (SEE MANUFACTURE'S
INSTALLATION INSTRUCTIONS)
(TYP)

LEAD

MINIMUM 12" SUMP

12"

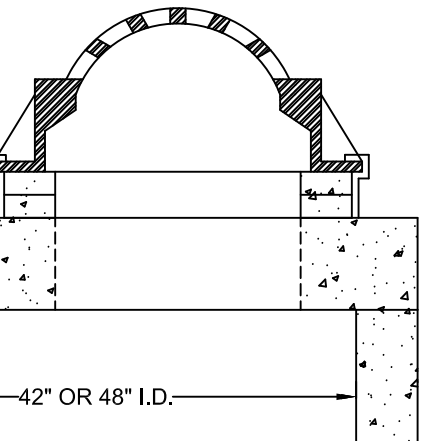
42" OR 48" I.D.

POURED CLASS 'D'
CONCRETE BASE
(ALTERNATE INTEGRAL
BASE)

FLAT TOP SECTION WITH
CIRCULAR OPENING SIZED
TO MATCH SPECIFIED
FRAME AND GRATE

EZ-WRAP CHIMNEY SEAL
(SEE MANUFACTURE'S
INSTALLATION INSTRUCTIONS)
(TYP)

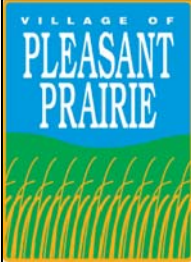
**BEEHIVE CATCH BASIN
WITH ALTERNATE FLAT TOP**



NOTE:

1. NON SHRINKING MORTAR REQUIRED (TYP)-STORM CONNECTIONS, ADJUSTING RINGS, ECT.
2. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR STORM SEWER

SCALE: NTS



STANDARD BEEHIVE CATCH BASIN

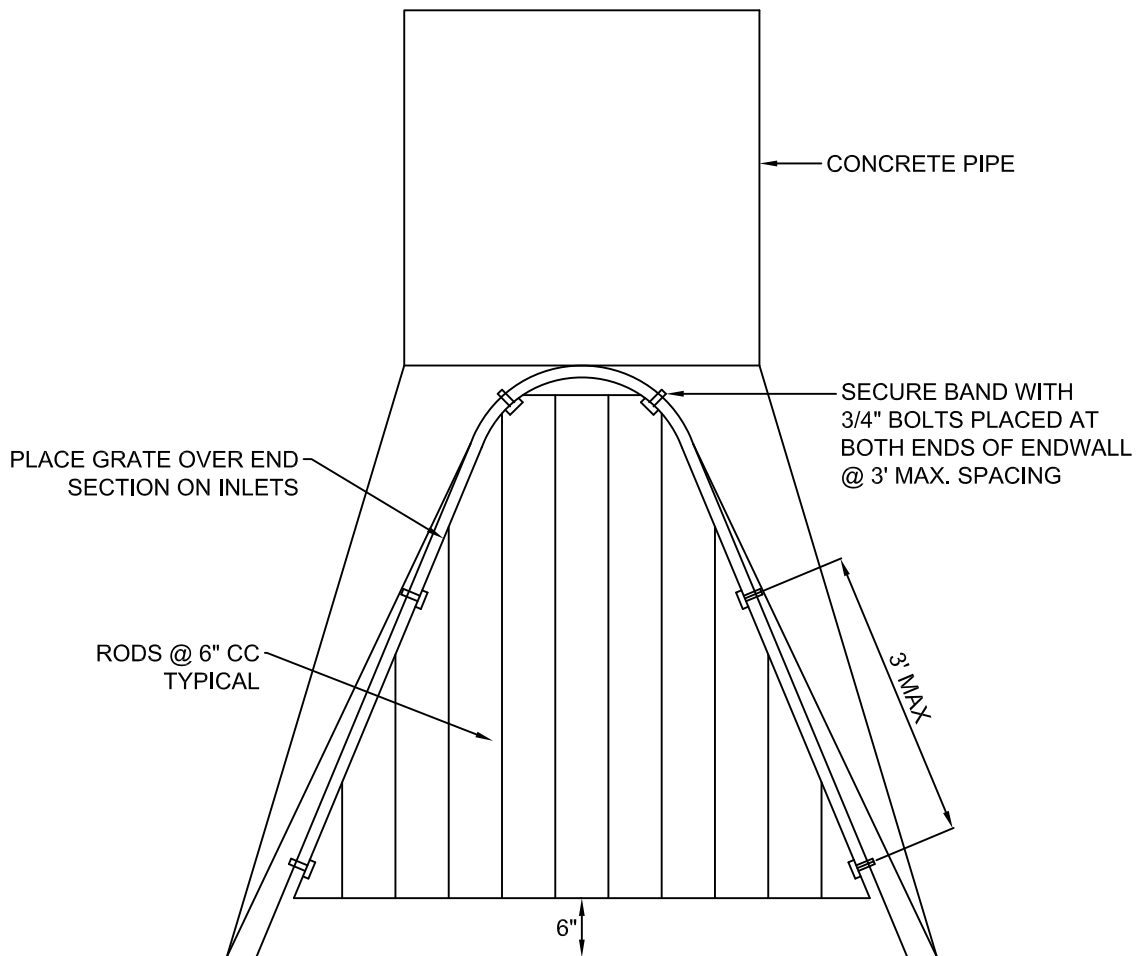
DETAIL: STM - 4

CREATED: 12-15-04

REVISED: 12-3-15

APPROVED BY: MATT FINEOUR





NOTE:

1. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR STORM SEWER.
2. SECURE THE LAST TWO PIPE SECTIONS, INCLUDING END SECTIONS, USING JOINT TIES.

SCALE: NTS



STANDARD ENDWALL GRATE

DETAIL: STM - 5

CREATED: 11-01-13

REVISED: 12-2-15

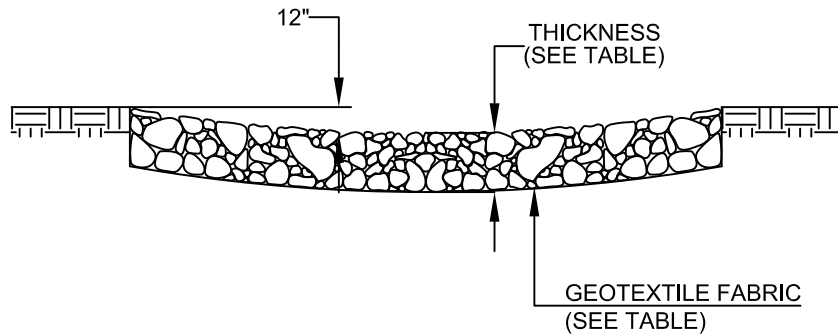
APPROVED BY: MATT FINEOUR



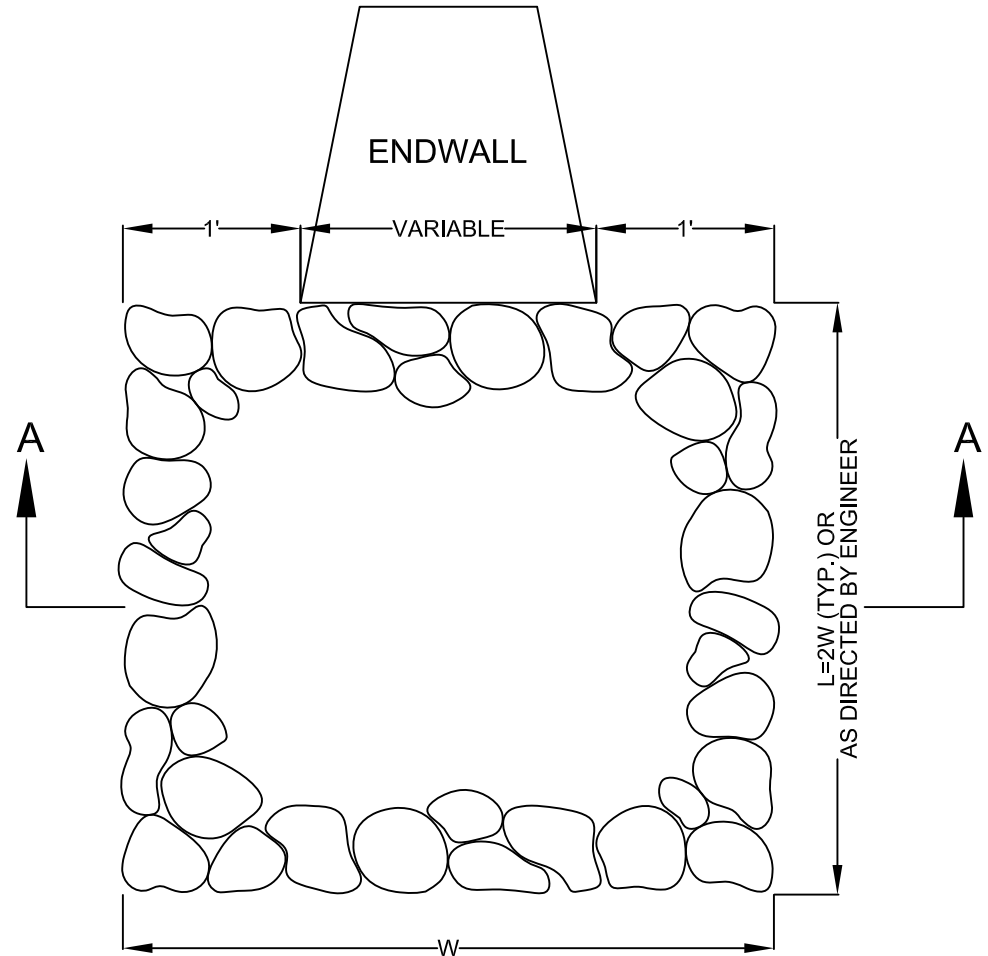
NOTE:

1. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR STORM SEWERS

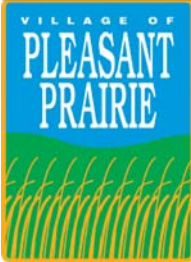
RIPRAP	RIPRAP THICKNESS	GEOTEXTILE FABRIC TYPE
LIGHT	12"	R
MEDIUM	18"	HR
HEAVY	24"	HR
EXTRA HEAVY	30"	HR



SECTION A-A



SCALE: NTS



RIPRAP TREATMENT AT ENDWALLS

DETAIL: STM - 6

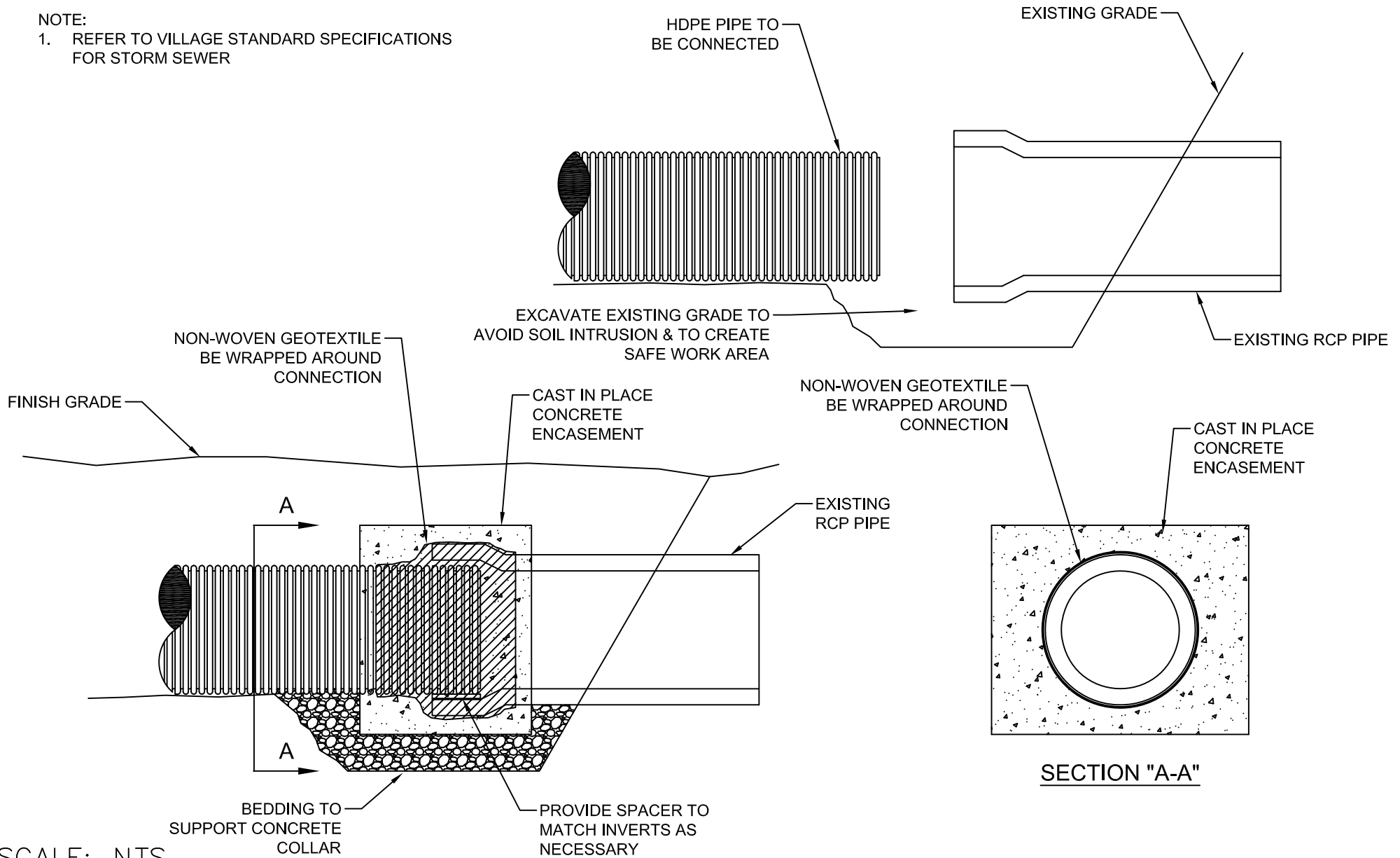
CREATED: 11-04-13

REVISED: 12-2-15

APPROVED BY: MATT FINEOUR



NOTE:
 1. REFER TO VILLAGE STANDARD SPECIFICATIONS
 FOR STORM SEWER



SCALE: NTS

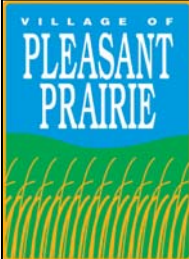
HDPE TO RCP (BELLED END) CONNECTION DETAIL

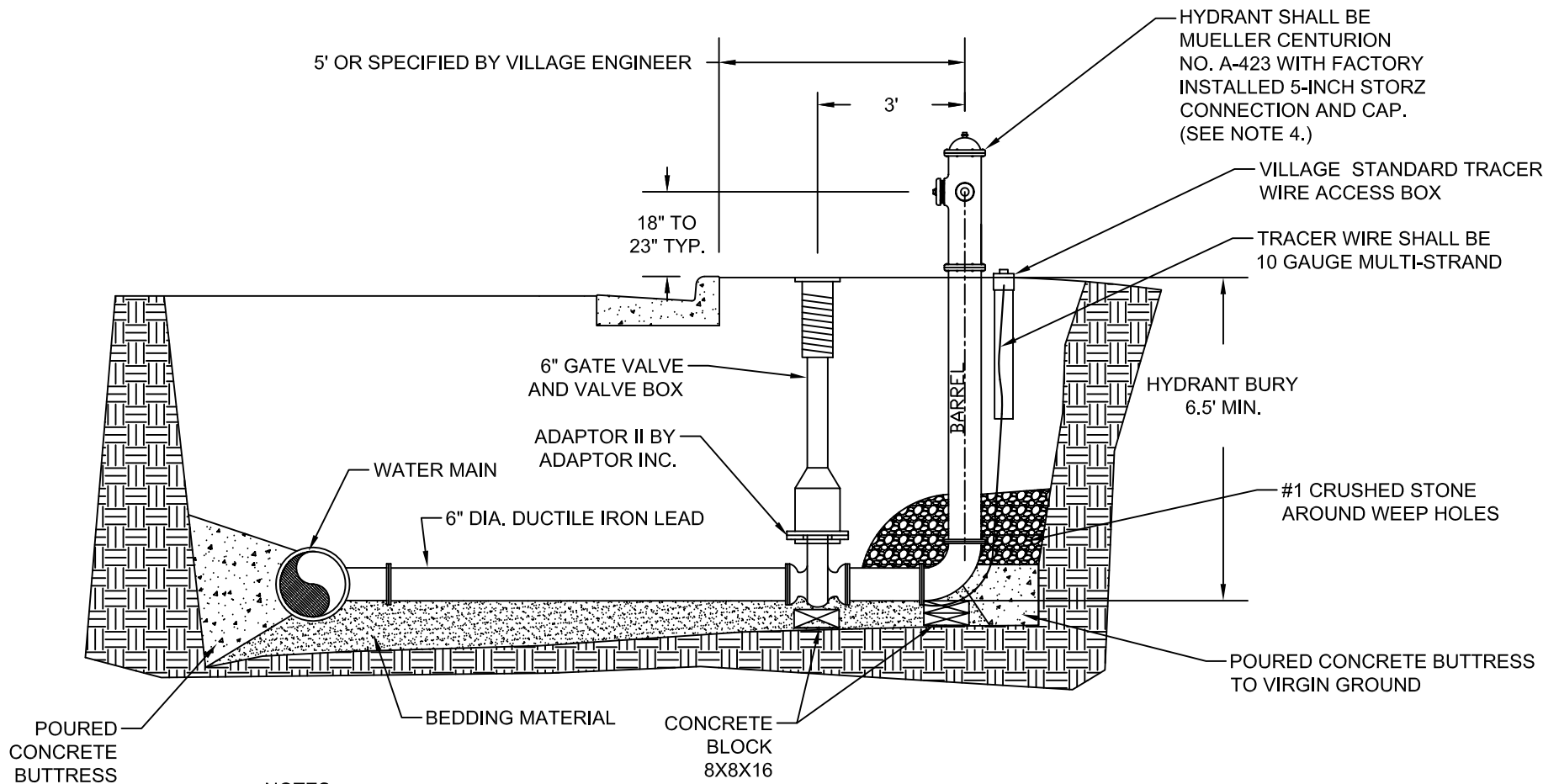
DETAIL: STM - 7

CREATED: 2-3-14

REVISED: 2-20-14

APPROVED BY: MATT FINEOUR





NOTES:

1. MECHANICAL JOINTS FROM TEE TO VALVE AND FROM VALVE TO HYDRANT SHALL BE RESTRAINED WITH MEGALUGS AND STAINLESS STEEL BOLTS.
2. ALL BOLTS SHALL BE STAINLESS STEEL BOLTS.
3. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR WATER MAIN CONSTRUCTION
4. HYDRANT SPECIFICATIONS - 2 EACH 2-1/2 INCH NST NOZZLE, 1 FACTORY INSTALLED 5-INCH STORZ CONNECTION AND CAP MANUFACTURED BY MUELLER.
5. PAINT SPECIFICATION - PLEASE REFER TO VS-0400 OF THE VILLAGE CONSTRUCTION SPECIFICATIONS.
6. HYDRANT EXTENSIONS ARE NOT PERMITTED.

SCALE: NTS

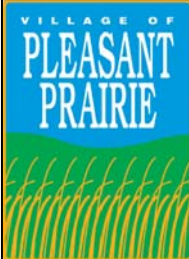
STANDARD HYDRANT ASSEMBLY

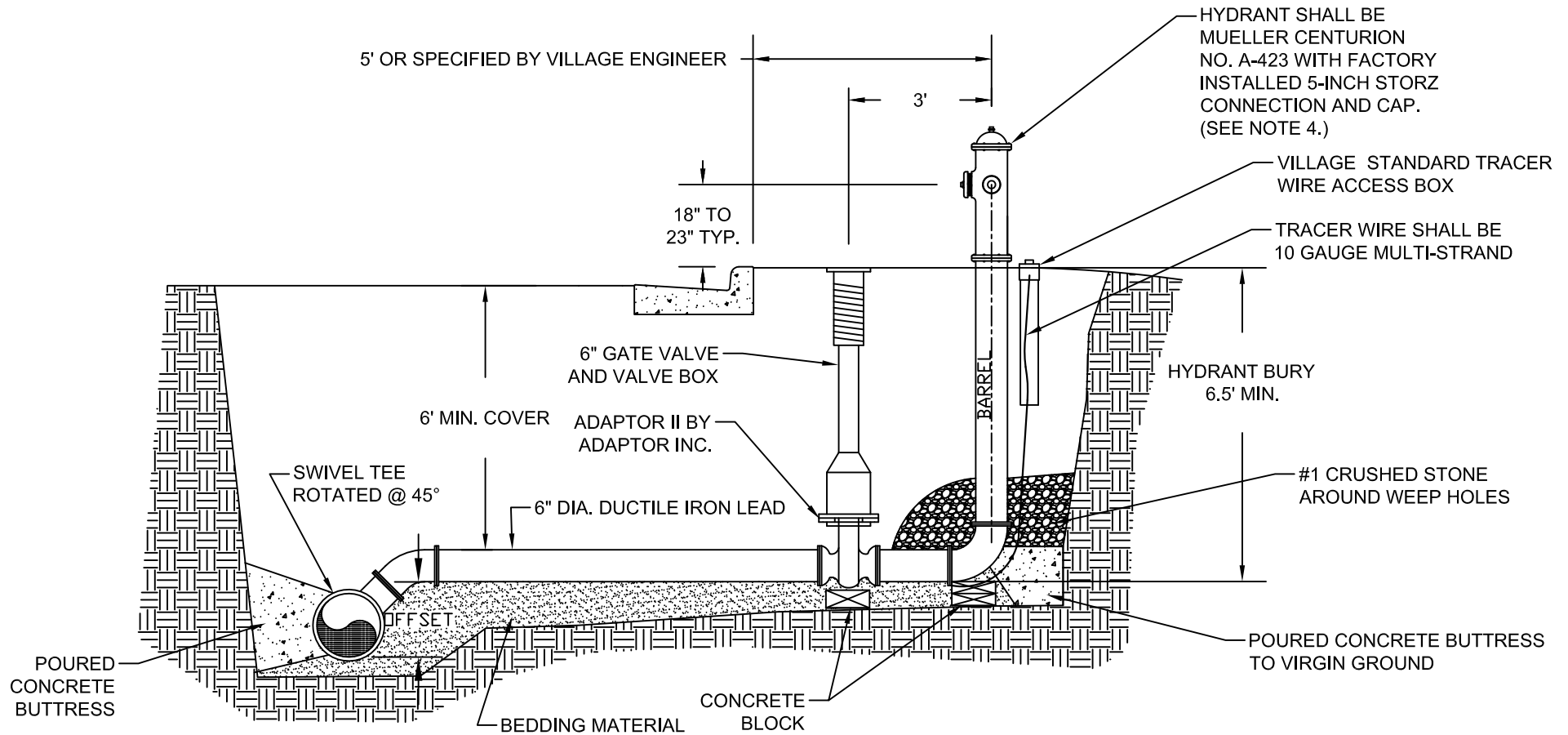
DETAIL: W - 1

CREATED: 11-26-12

REVISED: 11-16-15

APPROVED BY: MATT FINEOUR





MAIN DIA (IN.)	OFFSET (FT.)
14	1.5±
16	1.6±
18	1.7±
20	1.9±
24	2.2±

NOTES:

- MECHANICAL JOINTS FROM TEE TO VALVE AND FROM VALVE TO HYDRANT SHALL BE RESTRAINED WITH MEGALUGS AND STAINLESS STEEL BOLTS.
- ALL BOLTS SHALL BE STAINLESS STEEL BOLTS.
- REFER TO VILLAGE STANDARD SPECIFICATIONS FOR WATER MAIN CONSTRUCTION
- HYDRANT SPECIFICATIONS - 2 EACH 2-1/2 INCH NST NOZZLE, 1 FACTORY INSTALLED 5-INCH STORZ CONNECTION AND CAP MANUFACTURED BY MUELLER.
- PAINT SPECIFICATION - PLEASE REFER TO VS-0400 OF THE VILLAGE CONSTRUCTION SPECIFICATIONS.
- HYDRANT EXTENSIONS ARE NOT PERMITTED.

SCALE: NTS

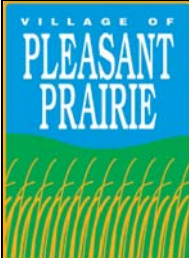
AIR RELEASE HYDRANT ASSEMBLY

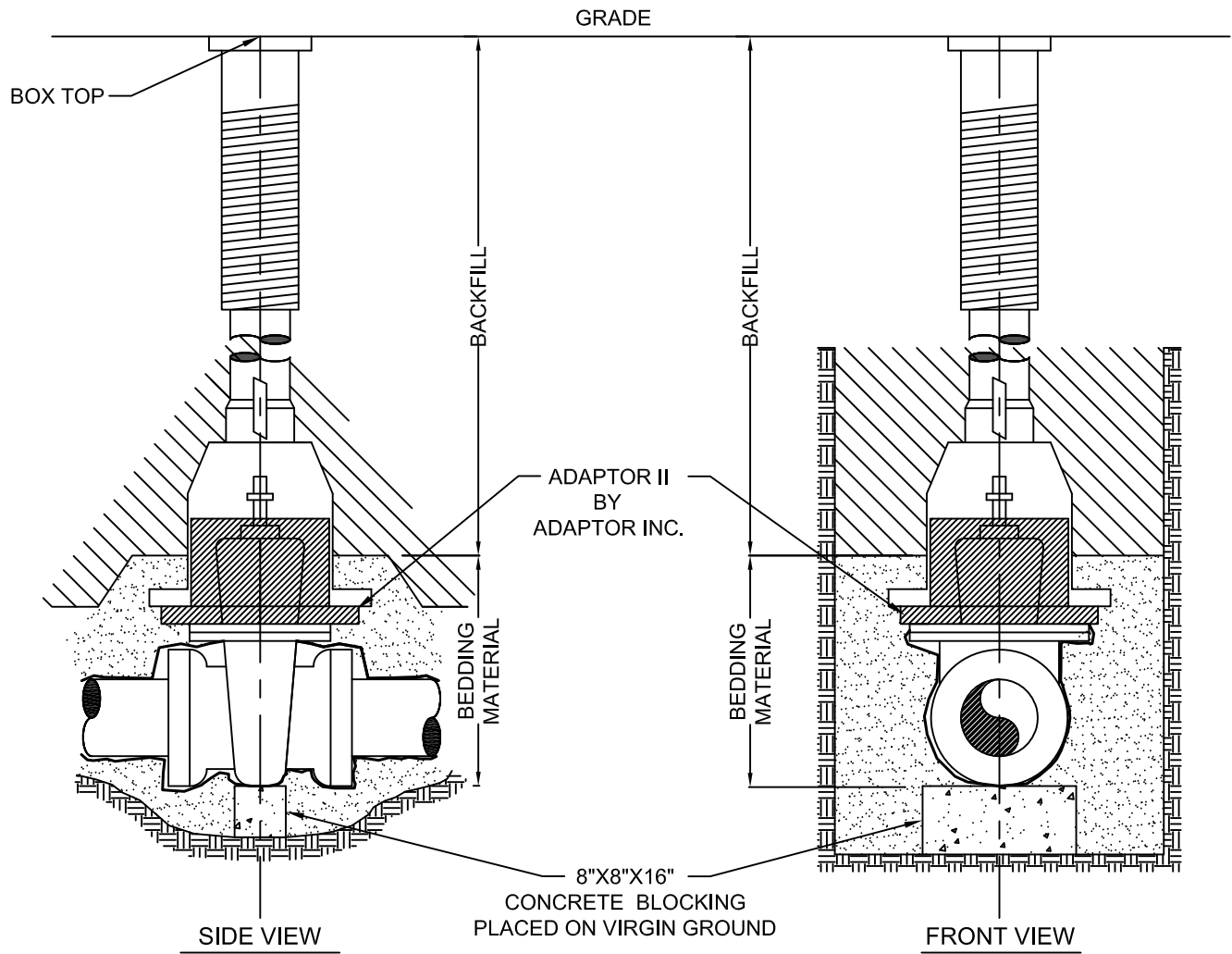
DETAIL: W - 2

CREATED: 11-26-12

REVISED: 11-16-15

APPROVED BY: MATT FINEOUR

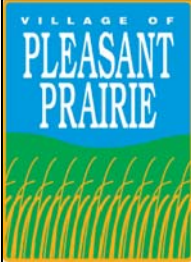




NOTE:

- 1. VALVE SHALL BE WRAPPED IN BLACK POLYETHYLENE.
- 2. REFER TO VILLAGE STANDARD SPECIFICATION FOR WATER MAIN

SCALE: NTS



STANDARD GATE VALVE BOX SETTING

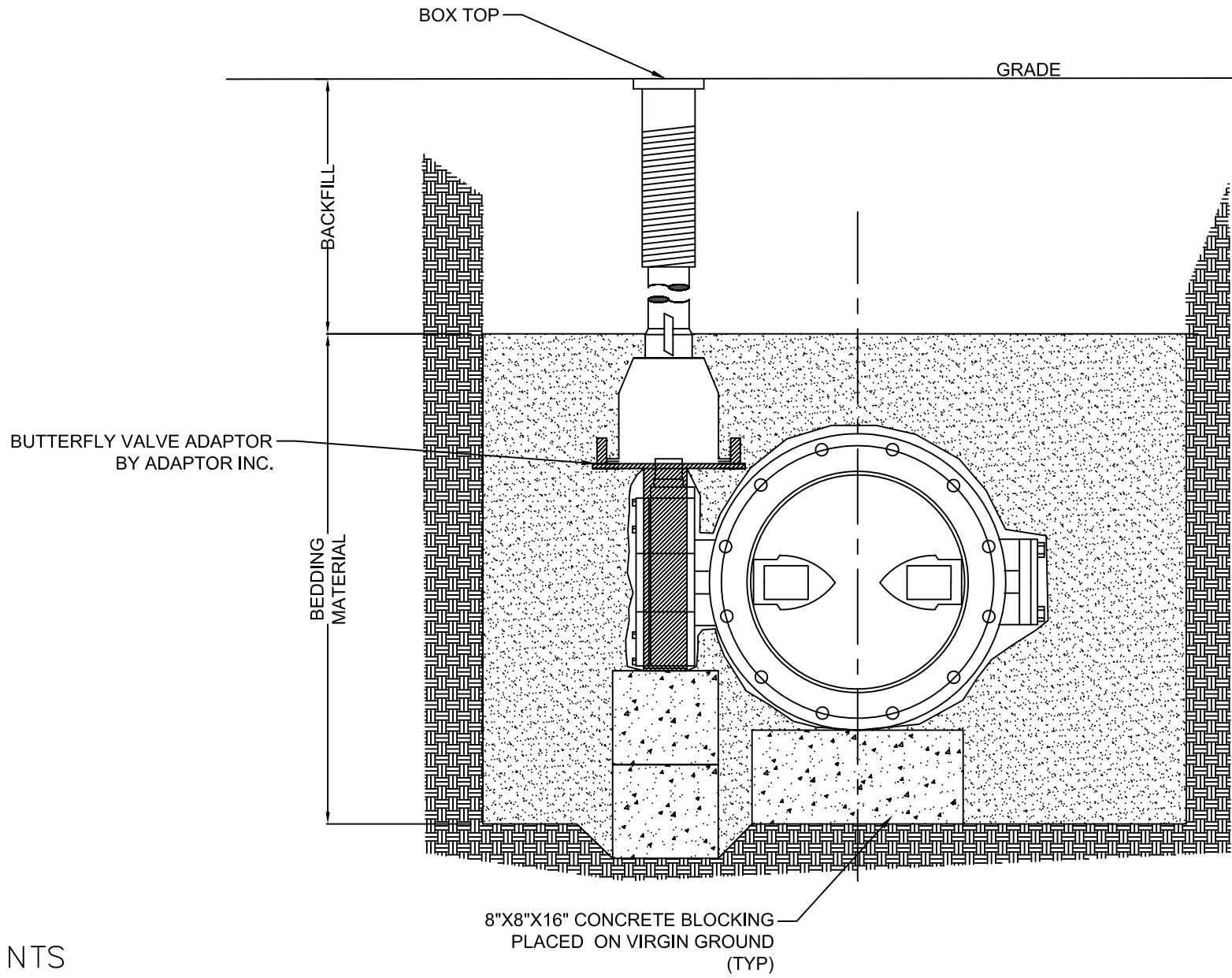
DETAIL: W - 3

CREATED: 12-14-04

REVISED: 11-16-15

APPROVED BY: MATT FINEOUR





SCALE: NTS

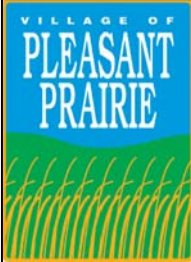
STANDARD BUTTERFLY VALVE BOX SETTING

DETAIL: W - 4

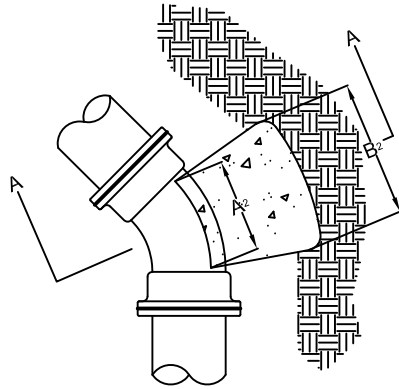
CREATED: 12-14-04

REVISED: 11-16-15

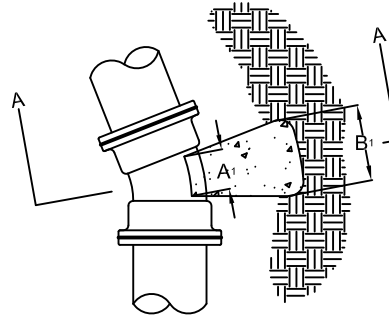
APPROVED BY: MATT FINEOUR



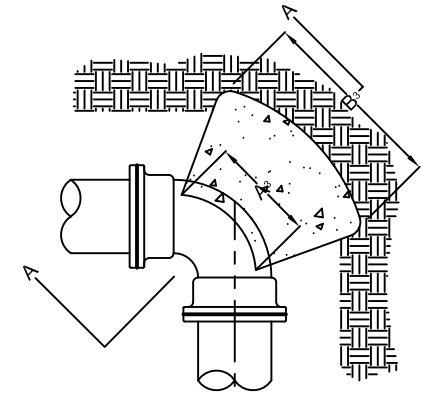
SCALE: NTS



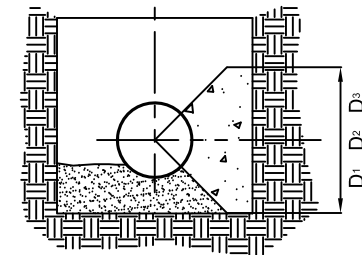
PLAN-45 DEG. BEND



PLAN-11 1/4 & 22 1/2 DEG. BEND



PLAN-90 DEG. BEND



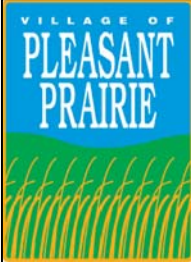
SECTION A-A

BUTTRESS DIMENSIONS

PIPE SIZE	11 1/4 & 22 1/2 DEG. BEND		45 DEG. BEND		90 DEG. BEND	
	B ₁	D ₁	B ₂	D ₂	B ₃	D ₃
6"	1'-3"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-6"	1'-4"	1'-4"	1'-2"	1'-10"	1'-6"
12"	2'-3"	2'-0"	1'-10"	1'-10"	2'-8"	2'-3"
16"	3'-2"	2'-6"	2'-6"	2'-4"	3'-10"	2'-10"
20"	4'-0"	3'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	5'-3"	3'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30"	6'-3"	4'-3"	5'-4"	3'-10"	8'-0"	4'-8"

NOTES:

1. DIMENSIONS IN THE TABLE ARE BASED ON A WATER PRESSURE OF 150 PSI AND ON EARTH RESISTANCE OF 2 TONS PER SQ. FT.
2. DIMENSION (A) SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH MECHANICAL JOINT BOLTS.
3. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POUR IS AGAINST FIRM UNDISTURBED EARTH.
4. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.
5. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR WATER MAIN.



BUTTRESS FOR BENDS

DETAIL: W - 5

CREATED: 2-4-14

REVISED: 10-23-15

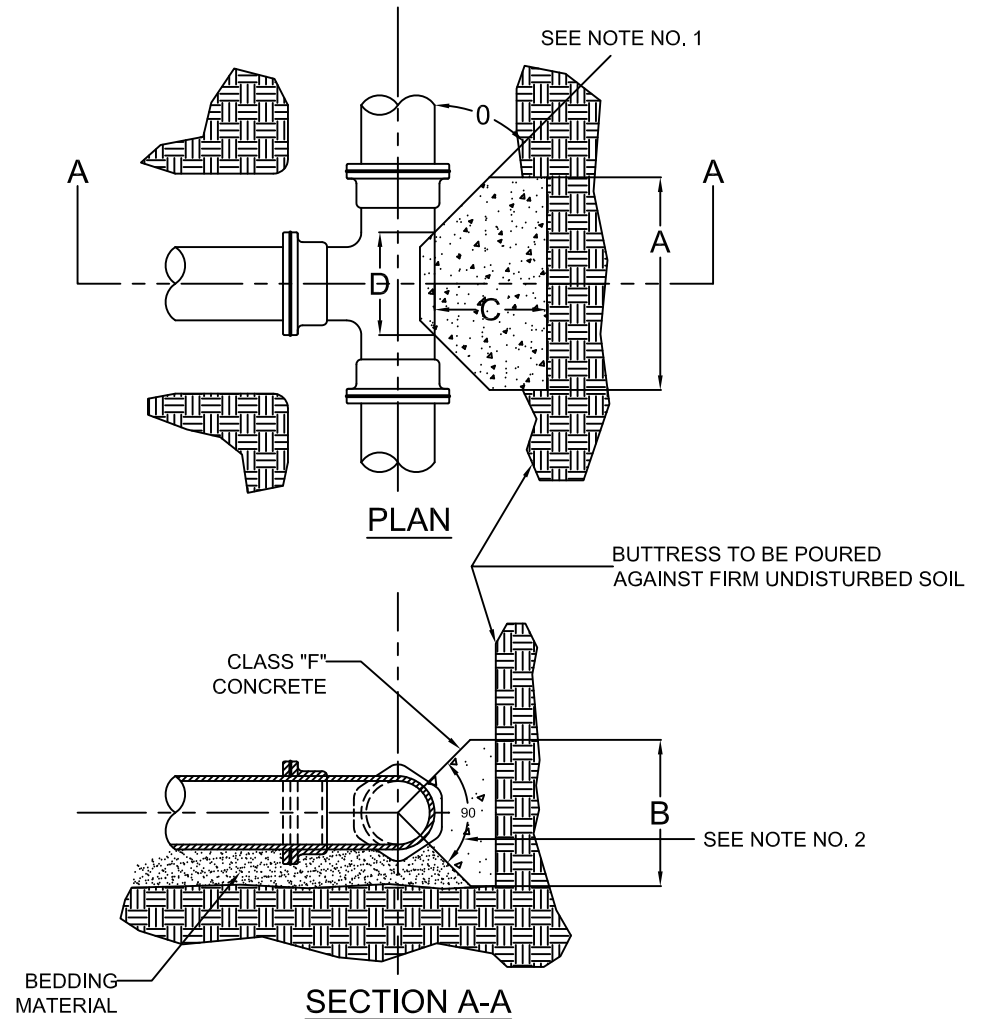
APPROVED BY: MATT FINEOUR



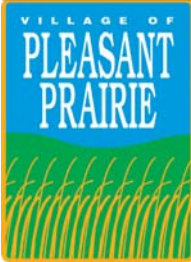
NOTES:

1. DIMENSION "C" SHOULD BE LARGE ENOUGH TO MAKE ANGLE "O" EQUAL TO OR LARGER THAN 45 DEG.
2. CONCRETE SHALL BEAR ON FITTINGS AS SHOWN.
3. DIMENSION "D" SHOULD BE AS LARGE AS POSSIBLE BUT CONCRETE SHOULD NOT INTERFERE WITH MECHANICAL JOINTS OR MECHANICAL JOINT BOLTS.
4. WHERE BUTTRESSES ARE NOT POSSIBLE BECAUSE OF POOR SOIL CONDITIONS OR LACK OF ROOM, STRAPPING SHALL BE PERMITTED IF APPROVED BY THE VILLAGE.
5. BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 PSI.
6. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR WATER MAIN.

BUTTRESS DIMENSIONS				
DIA.	A	B	C	D
6"	1'- 3"	1'- 0"	SEE NOTE NO. 1	SEE NOTE NO. 3
8"	1'- 6"	1'- 4"		
12"	2'- 3"	2'- 0"		
16"	3'- 2"	2'- 6"		
20"	4'- 0"	3'- 0"		
24"	5'- 3"	3'- 4"		
30"	6'- 3"	4'- 3"		



SCALE: NTS



BUTTRESS FOR TEES

DETAIL: W - 5A

CREATED: 2-5-14

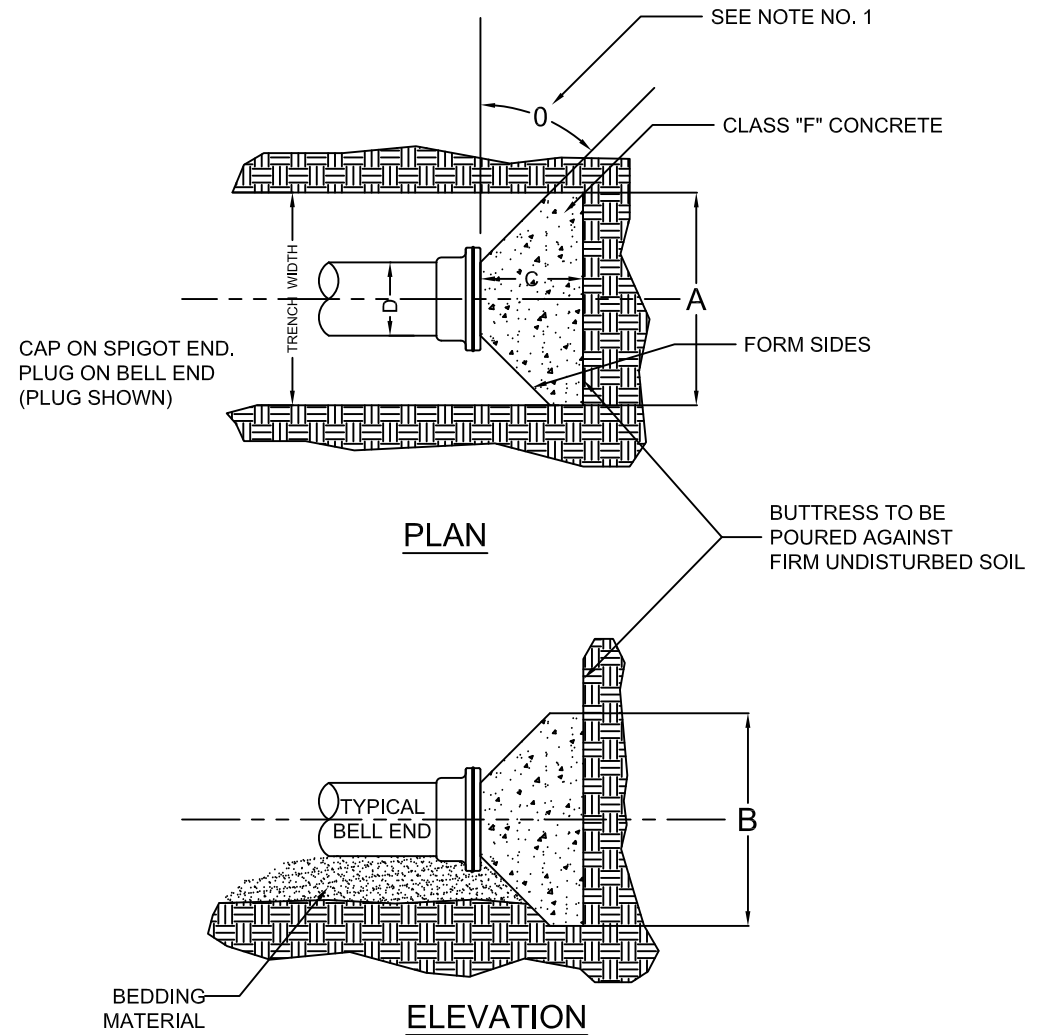
REVISED: 10-23-15

APPROVED BY: MATT FINEOUR



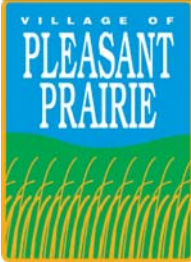
NOTES:

1. DIMENSION "C" SHOULD BE LARGE ENOUGH TO MAKE ANGLE "O" EQUAL TO OR LARGER THAN 45 DEG.
2. DIMENSION "D" EQUALS APPROX. I.D. OF PIPE LESS 2". AN EFFORT SHOULD BE MADE TO PREVENT CONCRETE FROM COVERING THE MECHANICAL JOINT BOLTS.
3. WHERE BUTTRESSES ARE NOT POSSIBLE BECAUSE OF POOR SOIL CONDITIONS OR LACK OF ROOM, STRAPPING SHALL BE PERMITTED IF APPROVED BY THE VILLAGE.
4. BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 PSI.
5. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR WATER MAIN.



BUTTRESS DIMENSIONS				
DIA.	A	B	C	D
6"	1'- 6"	1'- 2"	SEE NOTE NO. 1	SEE NOTE NO. 2
8"	2'- 0"	1'- 4"		
12"	2'- 5"	1'- 10"		
16"	3'- 4"	2'- 4"		
20"	4'- 3"	2'- 10"		
24"	5'- 2"	3'- 4"		
30"	6'- 9"	4'- 0"		

SCALE: NTS



BUTTRESS FOR DEAD ENDS

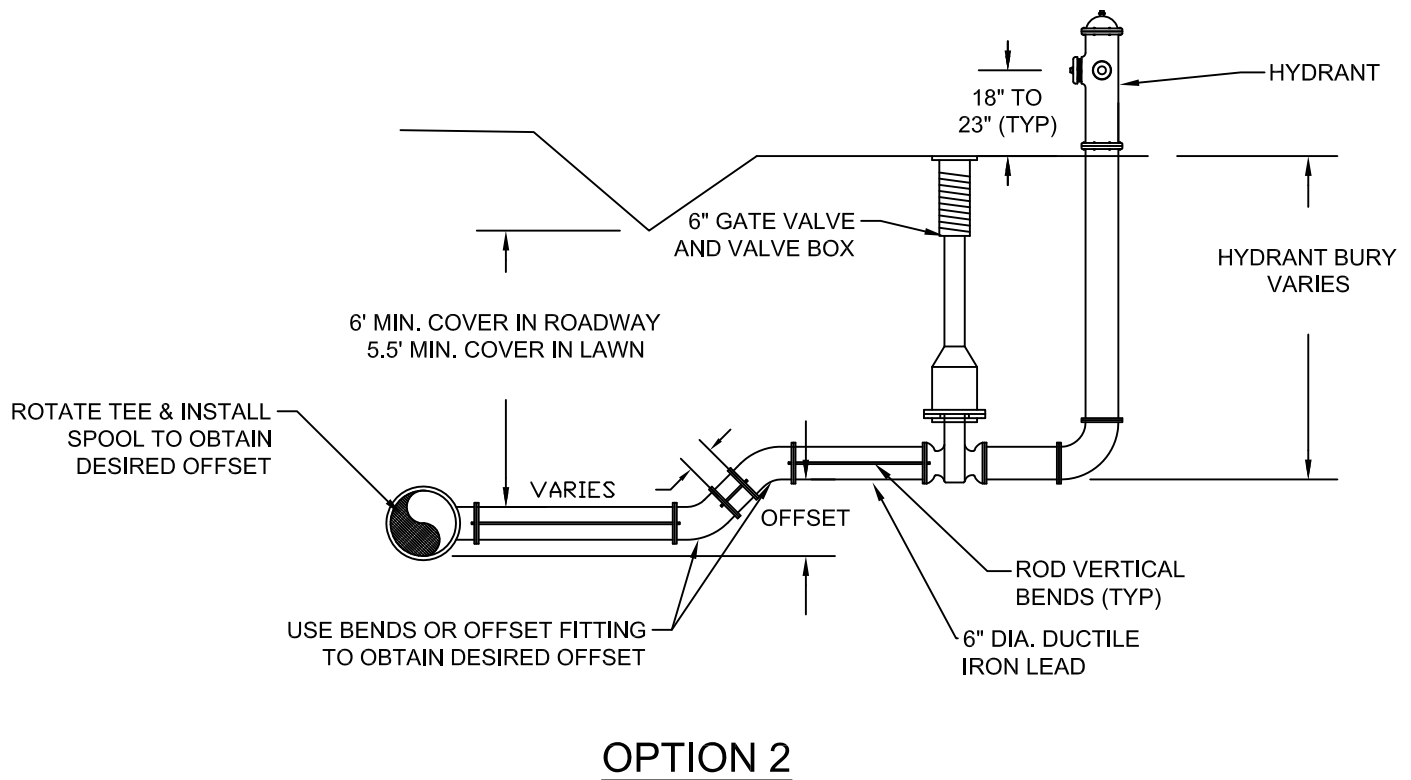
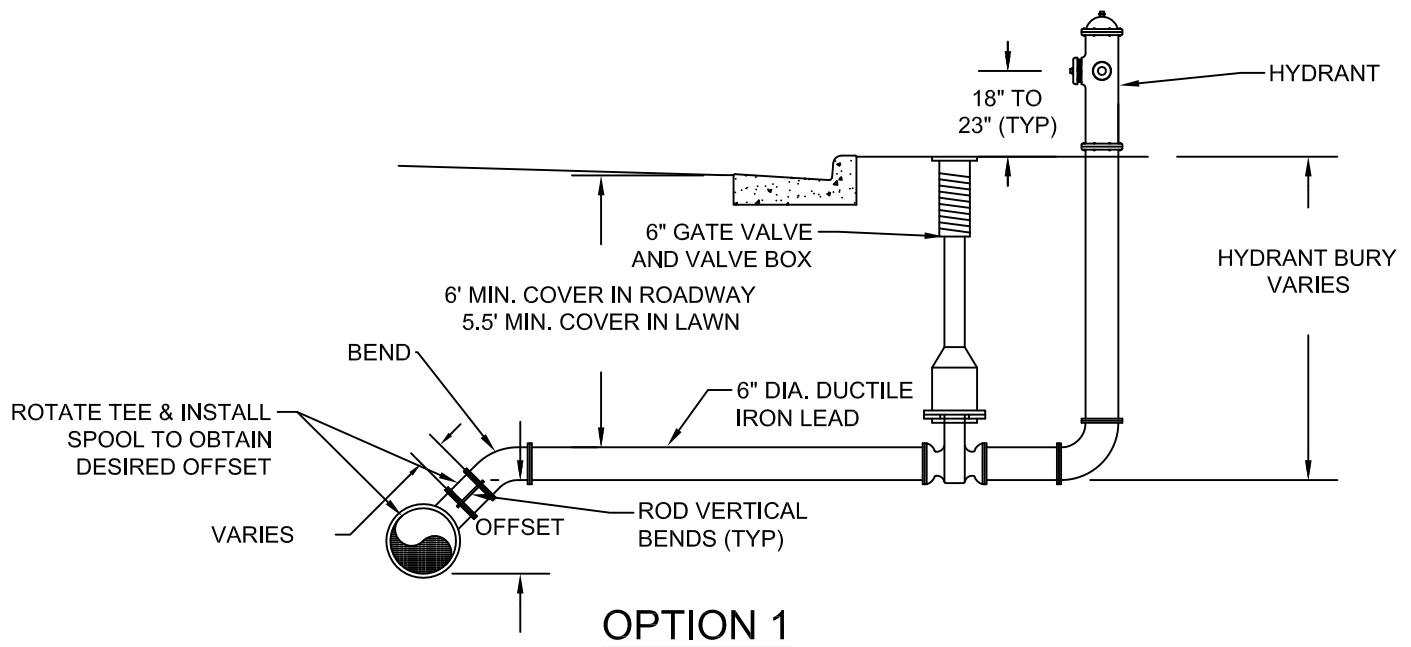
DETAIL: W - 5B

CREATED: 2-5-14

REVISED: 10-23-15

APPROVED BY: MATT FINEOUR





NOTE:

1. HYDRANT ASSEMBLY INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD HYDRANT ASSEMBLY DETAIL..
2. REFER TO THE VILLAGE STANDARD SPECIFICATIONS FOR WATER MAIN CONSTRUCTION.
3. ALL VERTICAL BENDS SHALL BE RODDED WITH STAINLESS STEEL HARDWARE..



HYDRANT OFFSETS

DETAIL: W - 6

CREATED: 11-21-12

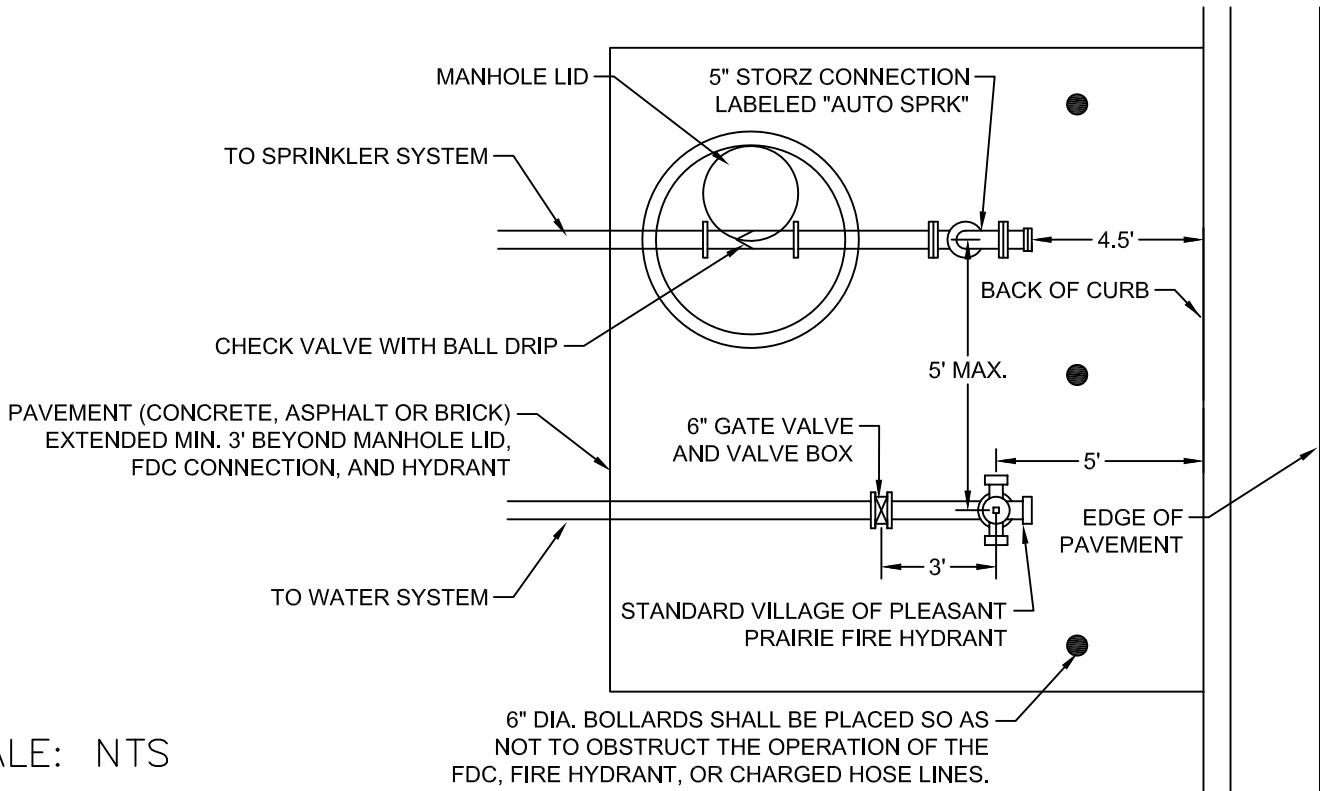
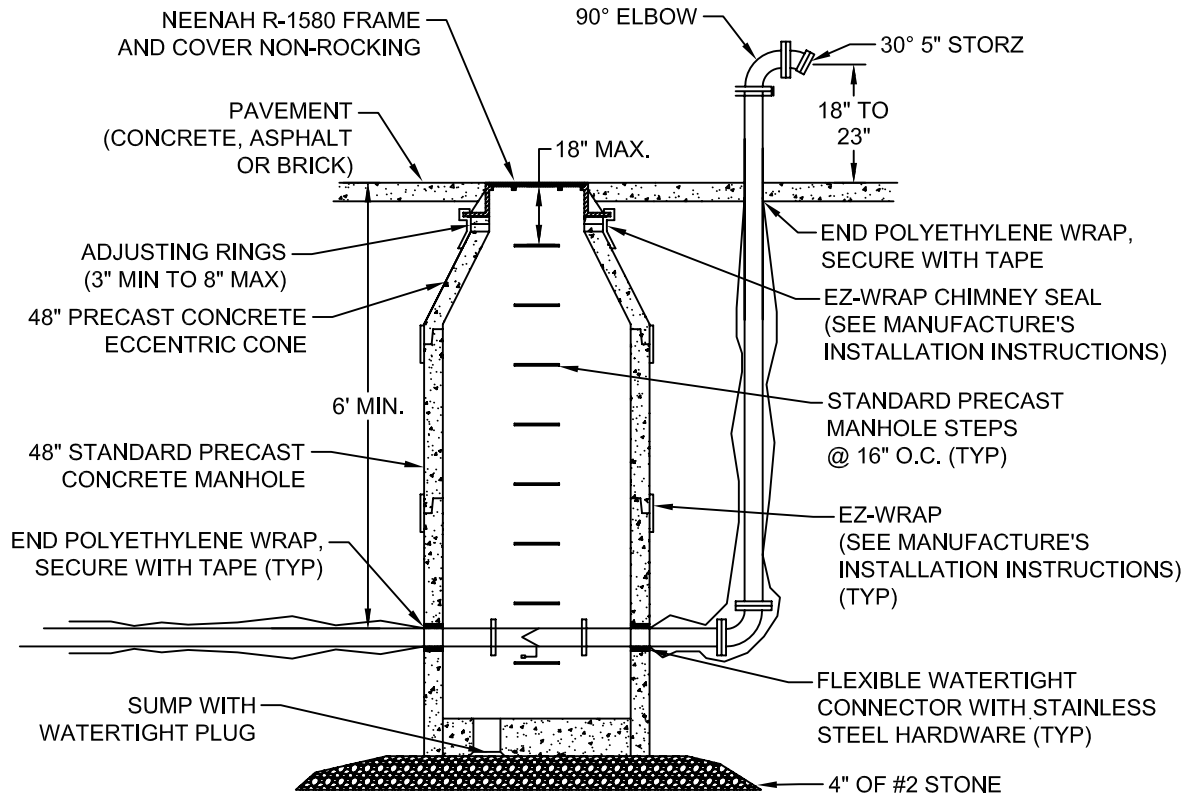
REVISED: 12-10-15

APPROVED BY: MATT FINEOUR



NOTE:

- SYSTEM SIZING SHALL BE COMPLETED BY A FIRE SUPPRESSION ENGINEER AND APPROVED OF BY THE VILLAGE OF PLEASANT PRAIRIE FIRE DEPARTMENT.
- SYSTEM INSTALLATION MUST BE CONSTRUCTED UNDER THE ONSITE SUPERVISION OF A LICENSED SPRINKLER FITTER.



SCALE: NTS



PUMPER PAD FDC DETAIL

DETAIL: FD - 1

CREATED: 4-16-13

REVISED: 3-2-16

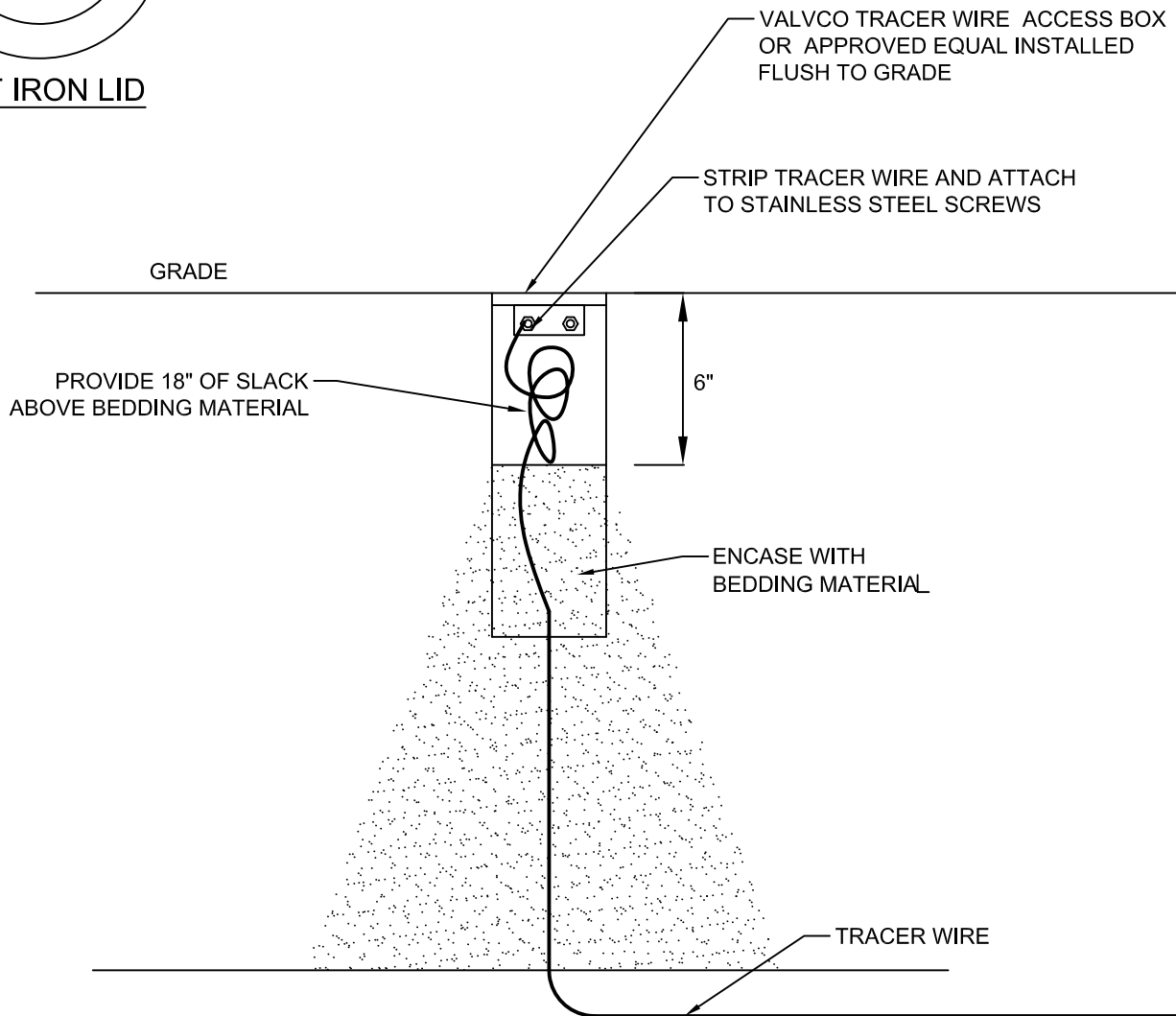
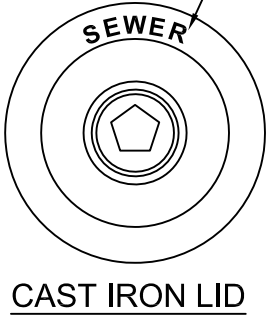
APPROVED BY: D. McELMURY



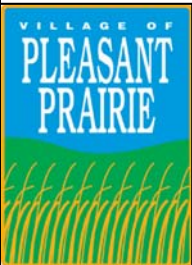
NOTES:

1. REFER TO VILLAGE STANDARD SPECIFICATIONS FOR TRACER WIRE.

SANITARY SEWER LIDS SHALL READ "SEWER".
 WATER MAIN LIDS SHALL READ "WATER".
 STORM SEWER LIDS SHALL READ "STORM SEWER".
 FORCE MAIN LIDS SHALL READ "SEWER" AND PAINTED BROWN.
 ELECTRICAL CONDUIT LIDS SHALL READ "ELECTRIC".



SCALE: NTS



TRACER WIRE ACCESS BOX

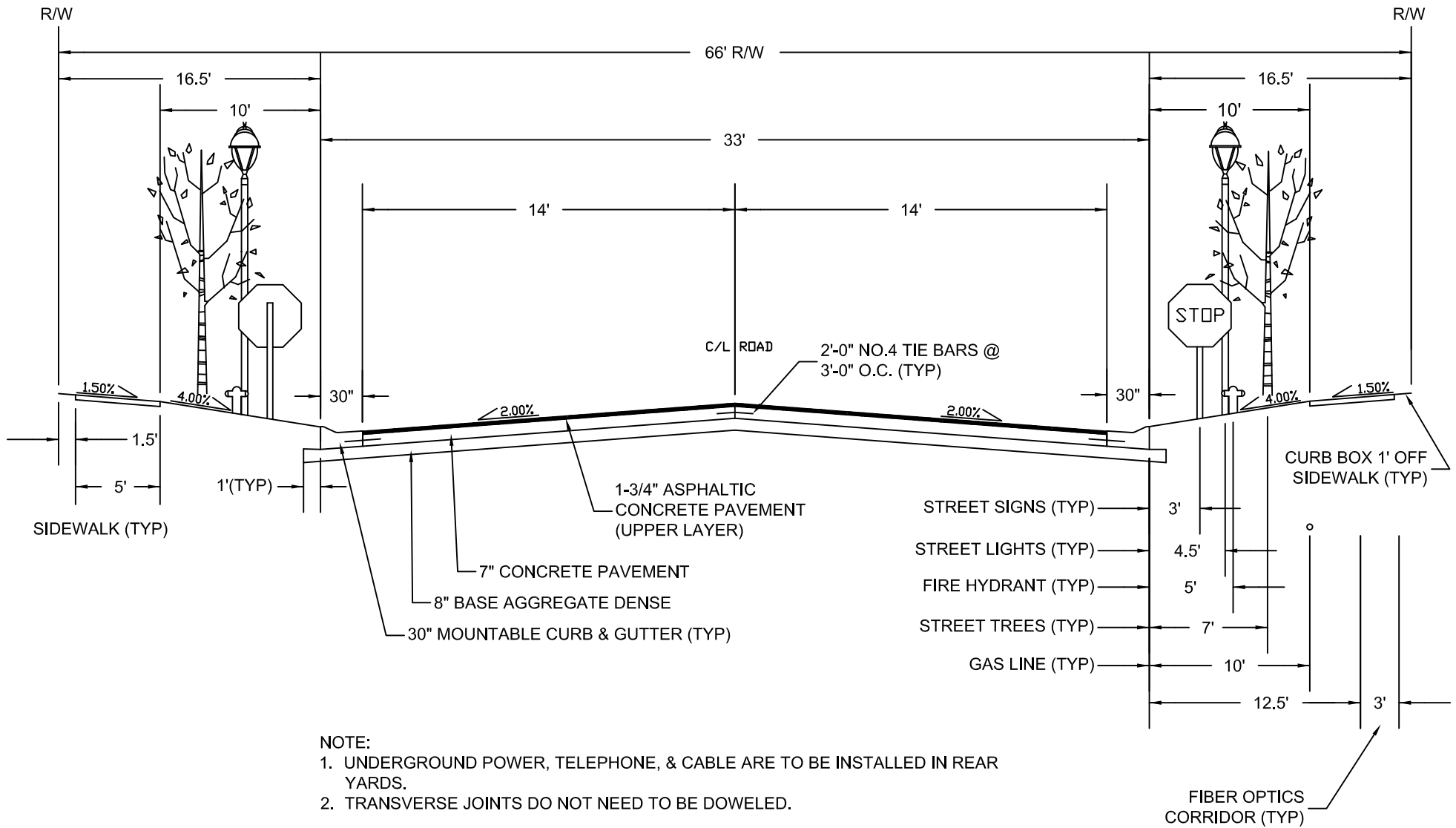
DETAIL: TW - 1

CREATED: 11-06-13

REVISED: 12-3-15

APPROVED BY: MATT FINEOUR





SCALE: NTS

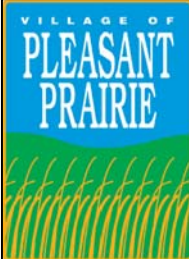
STANDARD RESIDENTIAL MINOR STREET SECTION

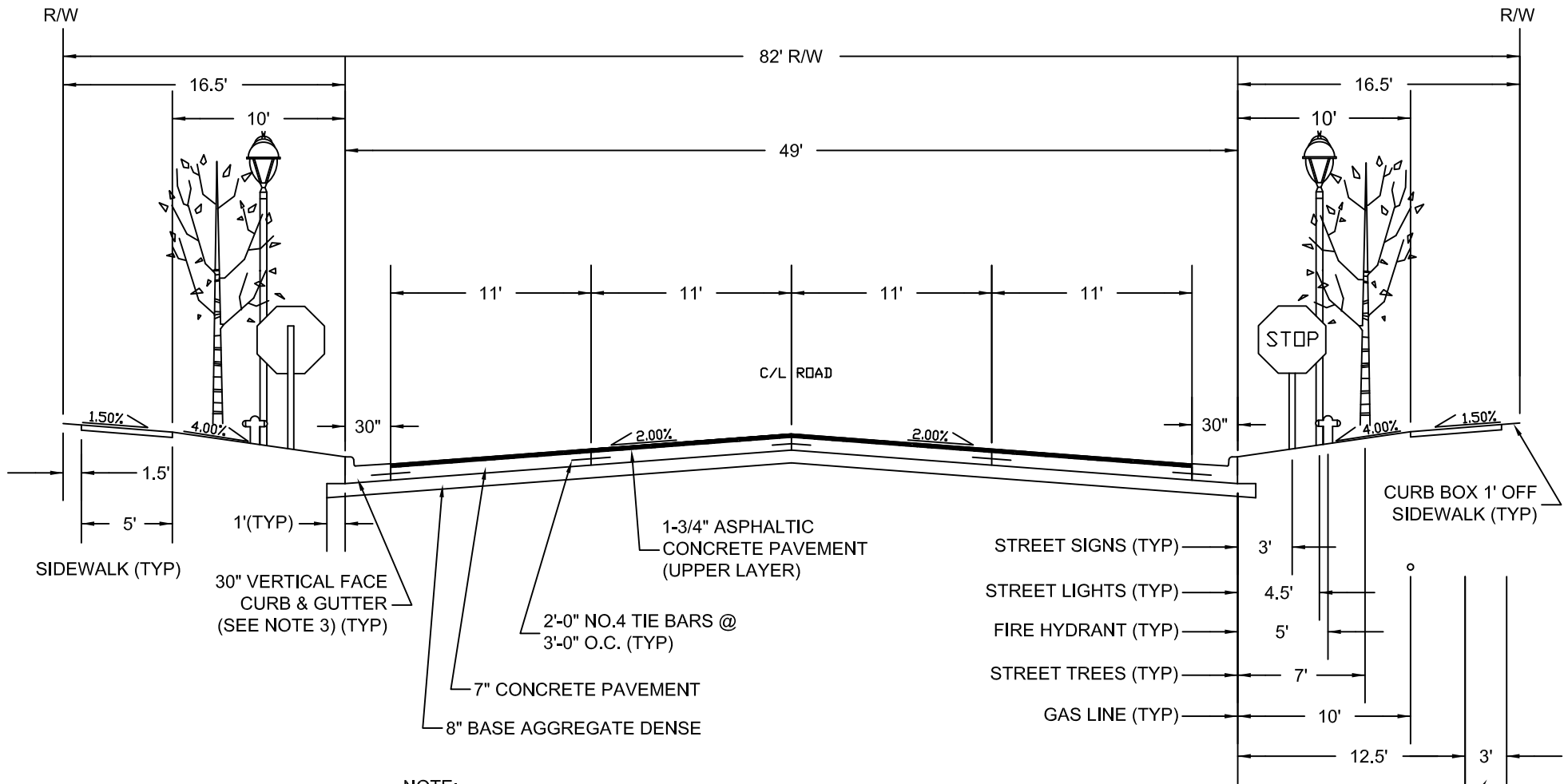
DETAIL: RD - 1

CREATED: 11-21-12

REVISED: 12-2-15

APPROVED BY: MATT FINEOUR

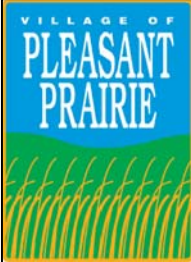




NOTE:

1. UNDERGROUND POWER, TELEPHONE, & CABLE ARE TO BE INSTALLED IN REAR YARDS.
2. CONCRETE PAVEMENT THICKNESS AND THE NEED TO DOWEL TRANSVERSE JOINTS TO BE EVALUATED ON A PER PROJECT BASIS.
3. GUTTER DEPTH SHALL EXTEND TO THE BOTTOM OF THE ADJACENT CONCRETE PAVEMENT.

SCALE: NTS



STANDARD RESIDENTIAL / COMMERCIAL COLLECTOR STREET SECTION

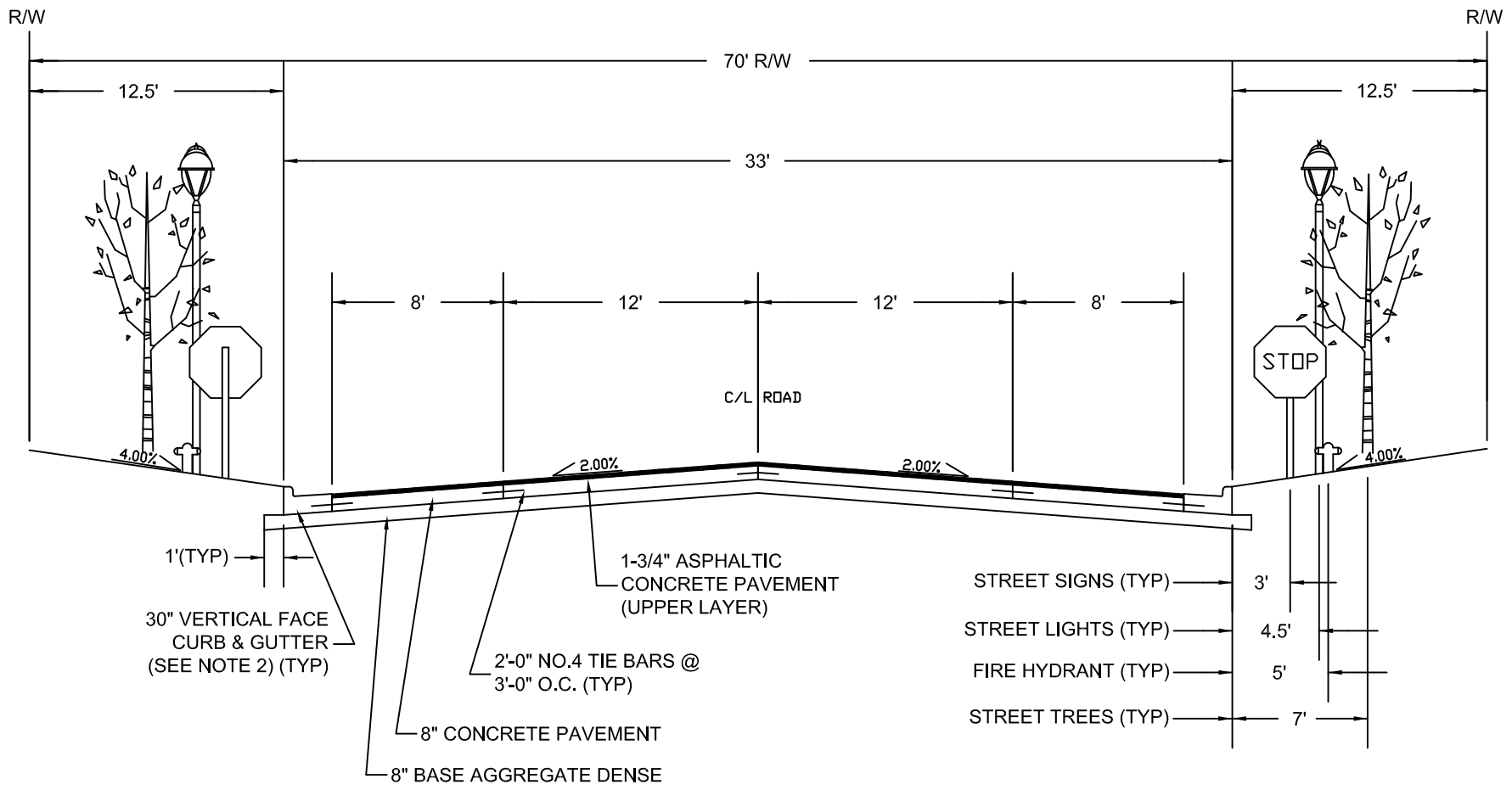
DETAIL: RD - 2

CREATED: 11-21-12

REVISED: 11-18-15

APPROVED BY: MATT FINEOUR

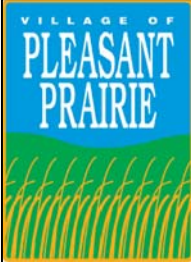




NOTE:

1. ROAD DESIGN INCLUDING PAVEMENT SECTION, DOWELED TRANSVERSE JOINTS, ROAD WIDTH, ROW WIDTH, AND INCLUSION OF SIDEWALKS, TO BE EVALUATED ON A PER PROJECT BASIS.
2. GUTTER DEPTH SHALL EXTEND TO THE BOTTOM OF THE ADJACENT CONCRETE PAVEMENT.

SCALE: NTS



STANDARD INDUSTRIAL STREET SECTION

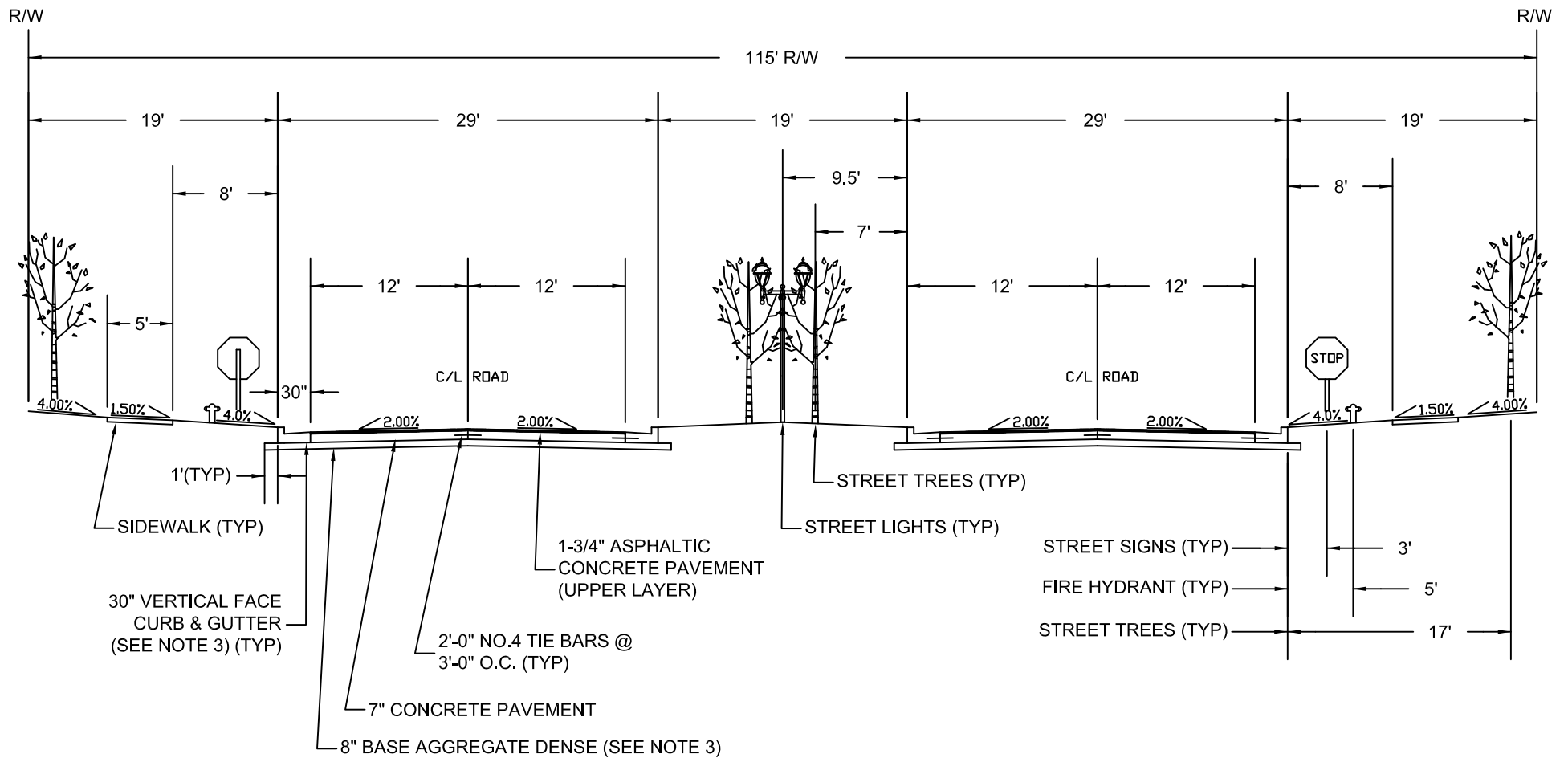
DETAIL: RD - 3

CREATED: 12-7-04

REVISED: 12-1-15

APPROVED BY: MATT FINEOUR





NOTE:

1. UNDERGROUND POWER, TELEPHONE, & CABLE ARE TO BE INSTALLED IN REAR YARDS.
2. CONCRETE PAVEMENT THICKNESS AND THE NEED TO DOWEL TRANSVERSE JOINTS TO BE EVALUATED ON A PER PROJECT BASIS.
3. GUTTER DEPTH SHALL EXTEND TO THE BOTTOM OF THE ADJACENT CONCRETE PAVEMENT.

SCALE: NTS

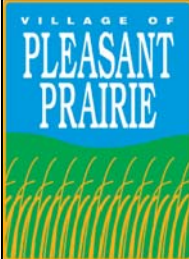
STANDARD RESIDENTIAL BOULEVARD SECTION

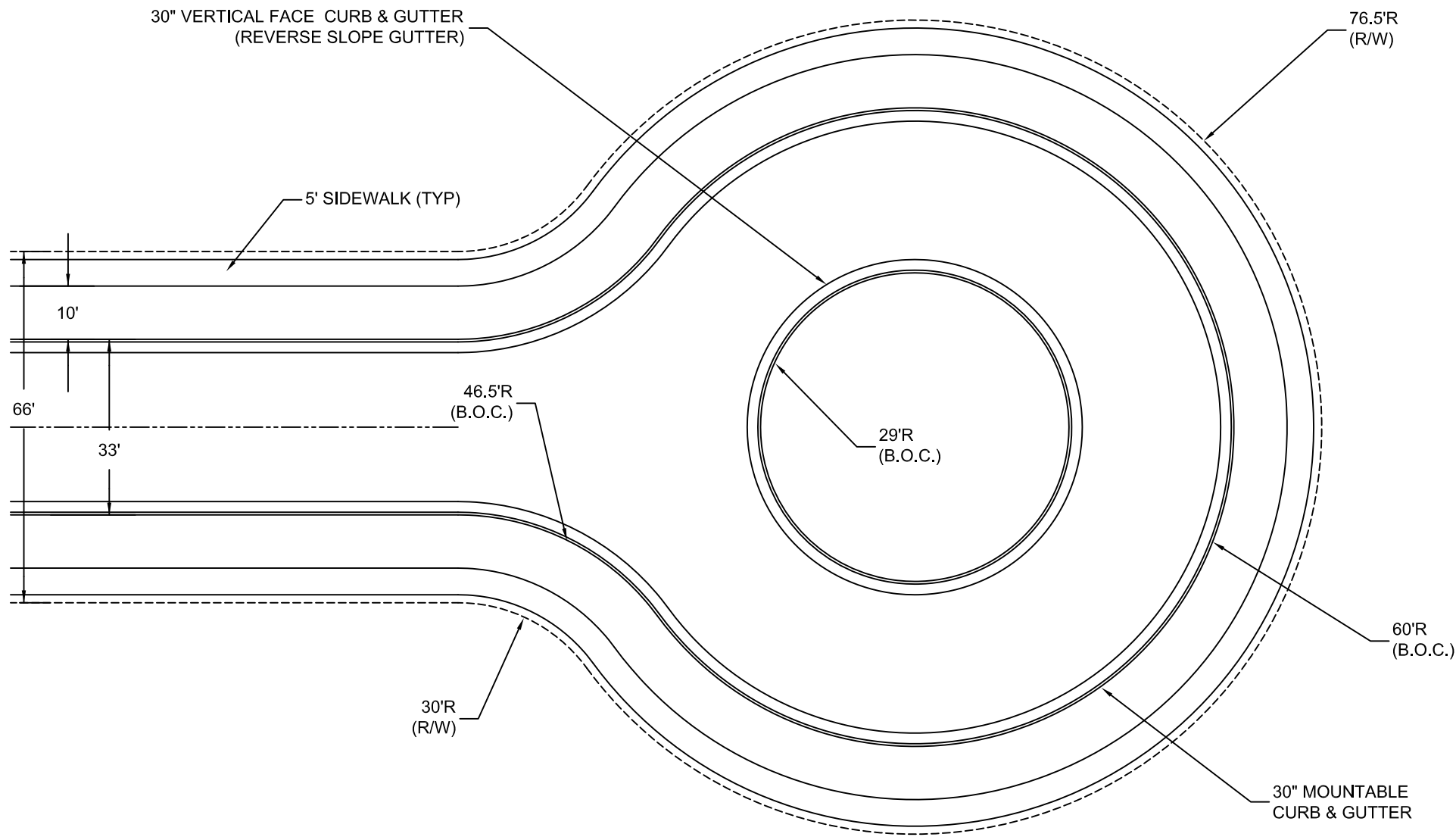
DETAIL: RD - 4

CREATED: 2-7-14

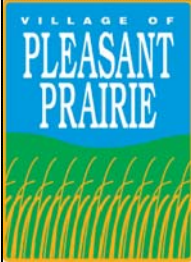
REVISED: 10-19-15

APPROVED BY: MATT FINEOUR





SCALE: NTS



STANDARD RESIDENTIAL CUL-DE-SAC DETAIL

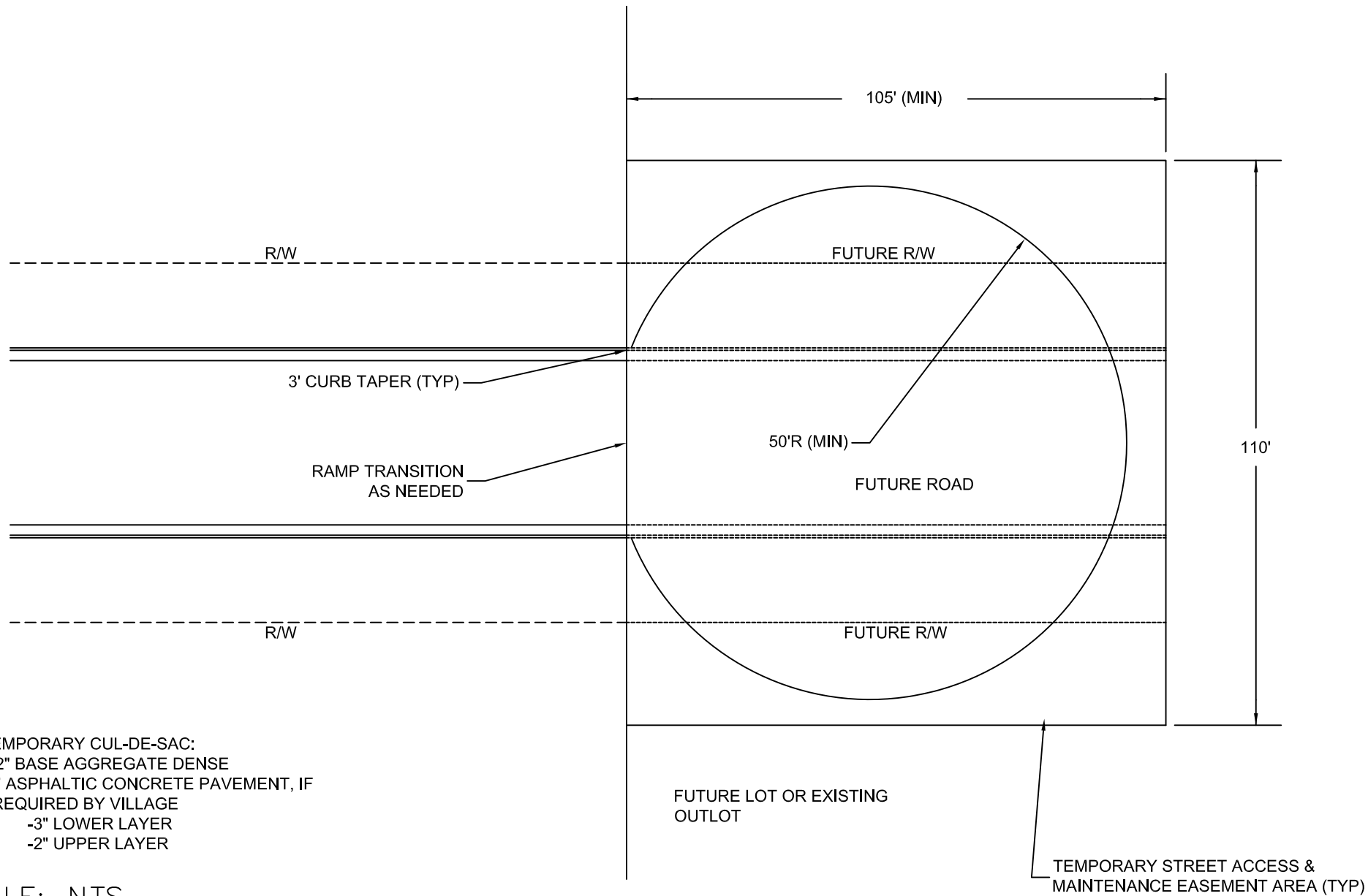
DETAIL: RD - 5

CREATED: 2-21-14

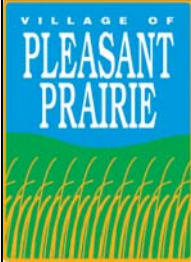
REVISED: 12-1-15

APPROVED BY: MATT FINEOUR





SCALE: NTS



TEMPORARY CUL-DE-SAC TURNAROUND

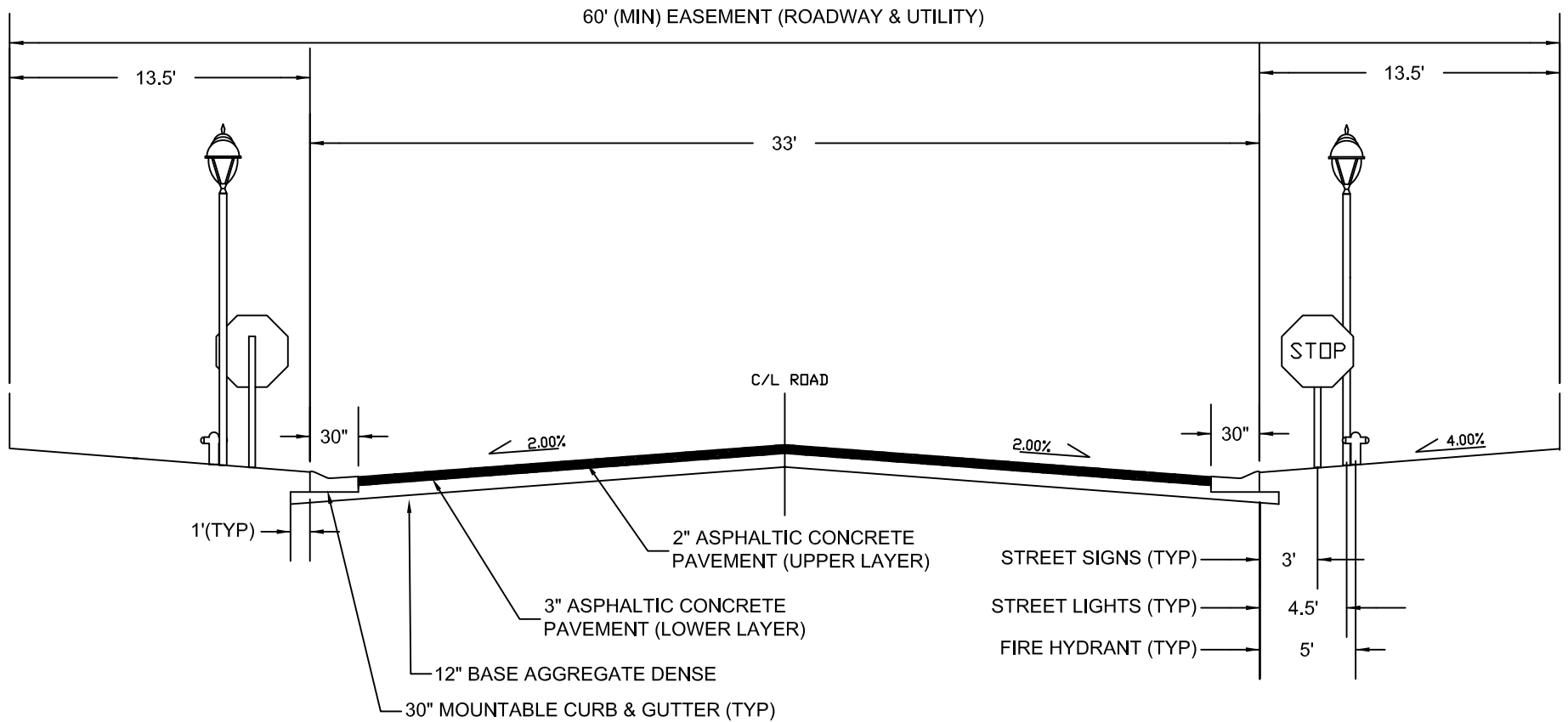
DETAIL: RD - 6

CREATED: 2-21-14

REVISED: 12-1-15

APPROVED BY: MATT FINEOUR

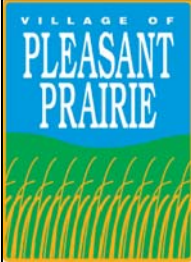




NOTE:

1. ROADWAY EASEMENT WIDTH MAY VARY AND BE INCREASED BASED ON DEVELOPMENT DESIGN INCLUDING LOCATION(S) OF SIDEWALK, STREET TREES, UTILITIES ETC., AS MAY BE APPLICABLE.

SCALE: NTS



STANDARD "PRIVATE" MINOR RESIDENTIAL STREET SECTION

DETAIL: RD - 7

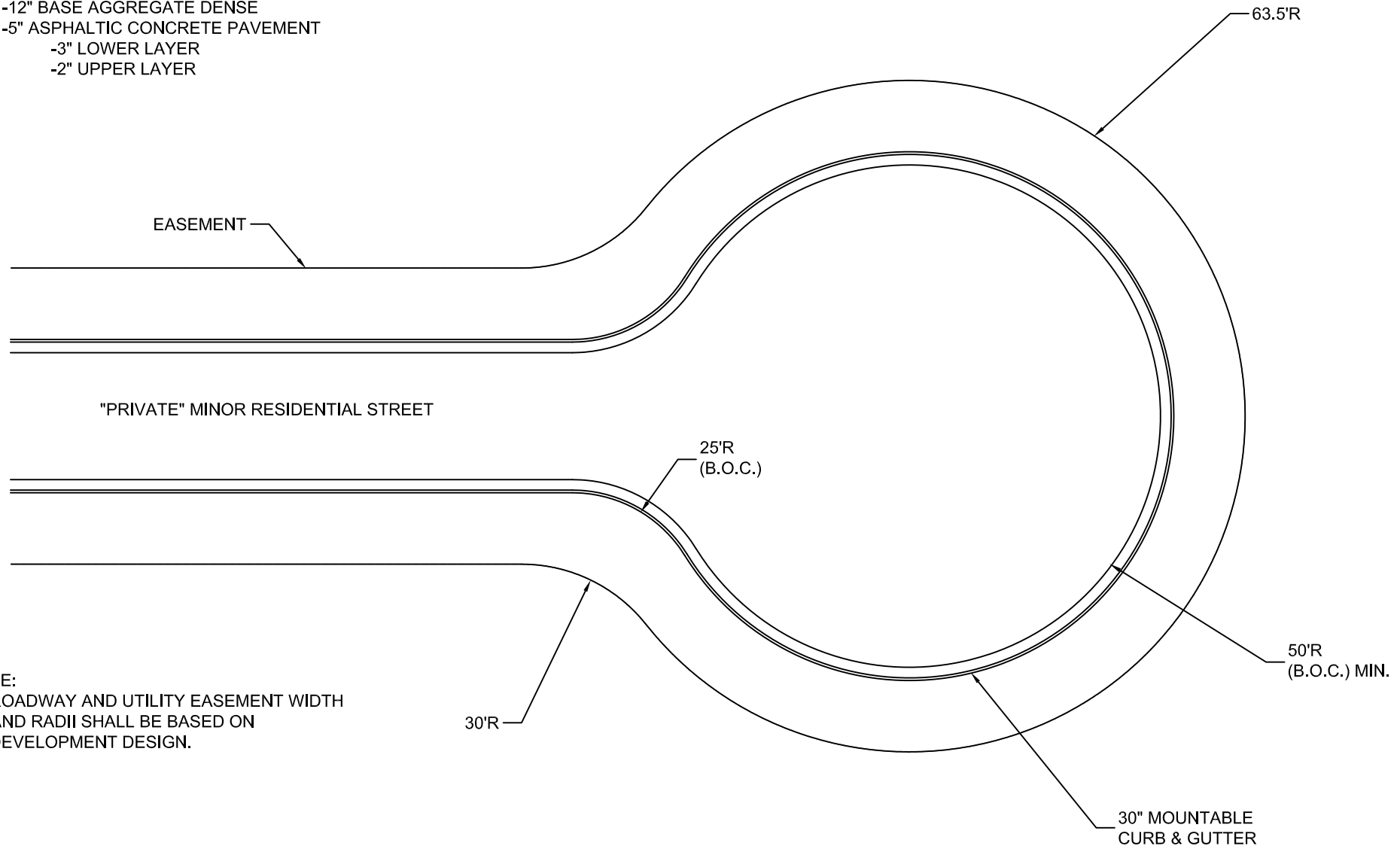
CREATED: 11-21-12

REVISED: 12-1-15

APPROVED BY: MATT FINEOUR

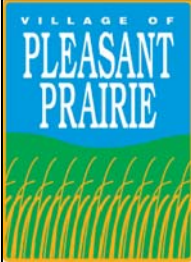


TEMPORARY CUL-DE-SAC:
 -12" BASE AGGREGATE DENSE
 -5" ASPHALTIC CONCRETE PAVEMENT
 -3" LOWER LAYER
 -2" UPPER LAYER



NOTE:
 1. ROADWAY AND UTILITY EASEMENT WIDTH
 AND RADII SHALL BE BASED ON
 DEVELOPMENT DESIGN.

SCALE: NTS



**STANDARD "PRIVATE" MINOR RESIDENTIAL STREET CUL-DE-SAC
 DETAIL**

DETAIL: RD - 8

CREATED: 2-21-14

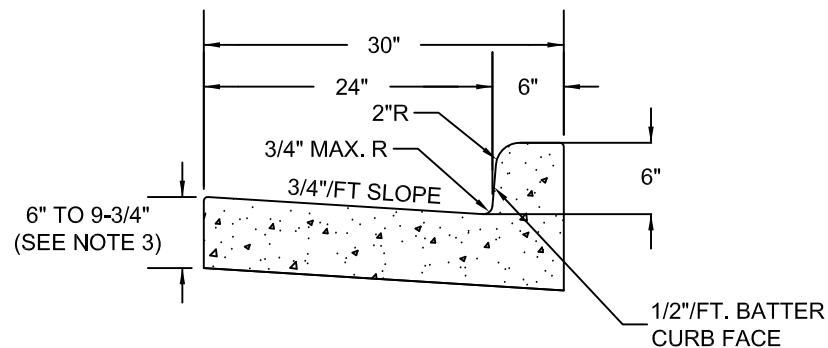
REVISED: 12-1-15

APPROVED BY: MATT FINEOUR

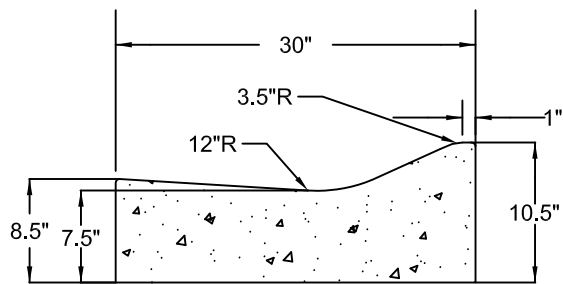


NOTE:

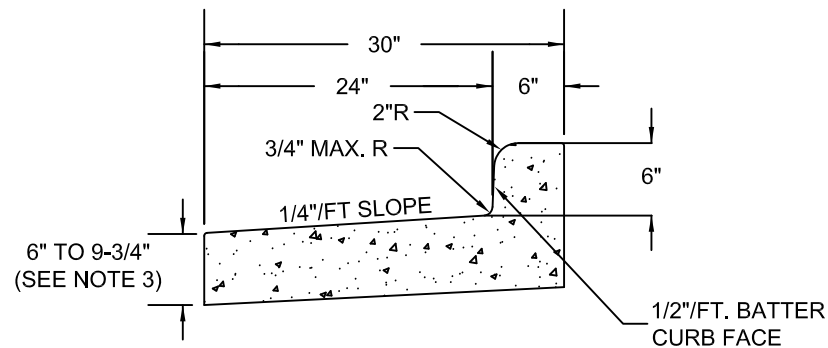
1. DAMAGED CURB / GUTTER SECTIONS SHALL BE REMOVED TO THE NEAREST JOINT.
2. CURB AND GUTTER CONSTRUCTED ADJACENT TO EXISTING CURB AND GUTTER SHALL BE INSTALLED USING TWO (2) NO.4 (1/2-INCH), 18-INCH LONG TIE BARS, EVENLY SPACED, DRIVEN 9-INCHES INTO THE EXISTING CURB AND GUTTER.
3. WHERE ADJACENT PAVEMENT SECTION CONTAINS CONCRETE THE GUTTER THICKNESS SHALL EXTEND TO THE BOTTOM OF THE ADJACENT CONCRETE PAVEMENT.



30" VERTICAL FACE CURB AND GUTTER

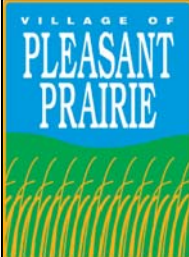


30" MOUNTABLE CURB AND GUTTER



30" VERTICAL FACE CURB AND GUTTER
(REVERSE SLOPE GUTTER)

SCALE: NTS



STANDARD CURB & GUTTER DETAILS

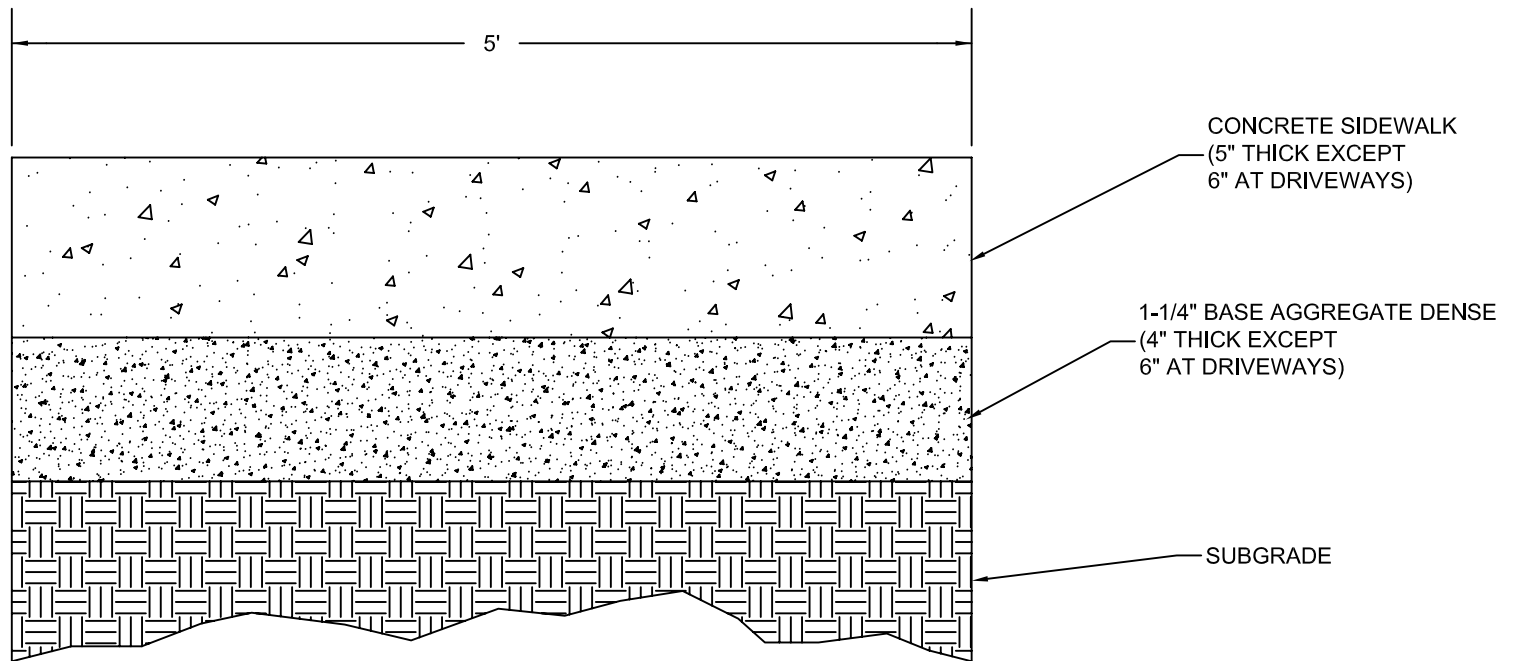
DETAIL: RD - 9

CREATED: 2-7-14

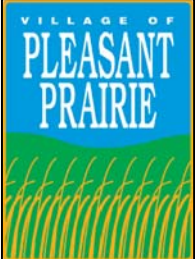
REVISED: 12-1-15

APPROVED BY: MATT FINEOUR





SCALE: NTS



STANDARD CONCRETE SIDEWALK DETAIL

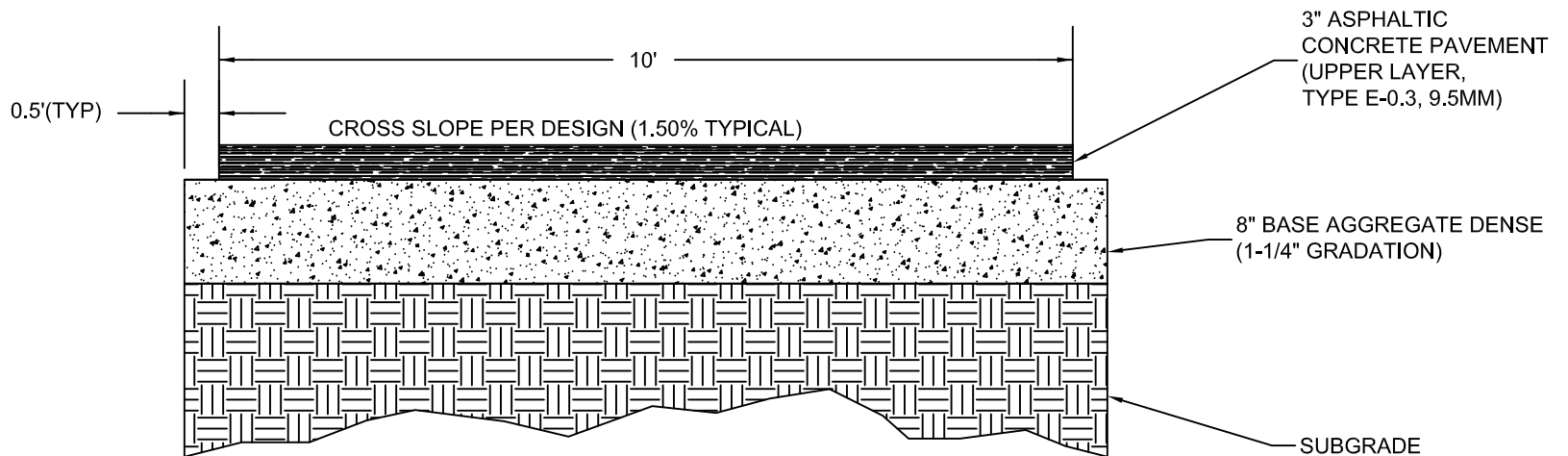
DETAIL: RD - 10

CREATED: 2-11-14

REVISED: 12-1-15

APPROVED BY: MATT FINEOUR





SCALE: NTS



STANDARD ASPHALT SHARED USE PATH DETAIL

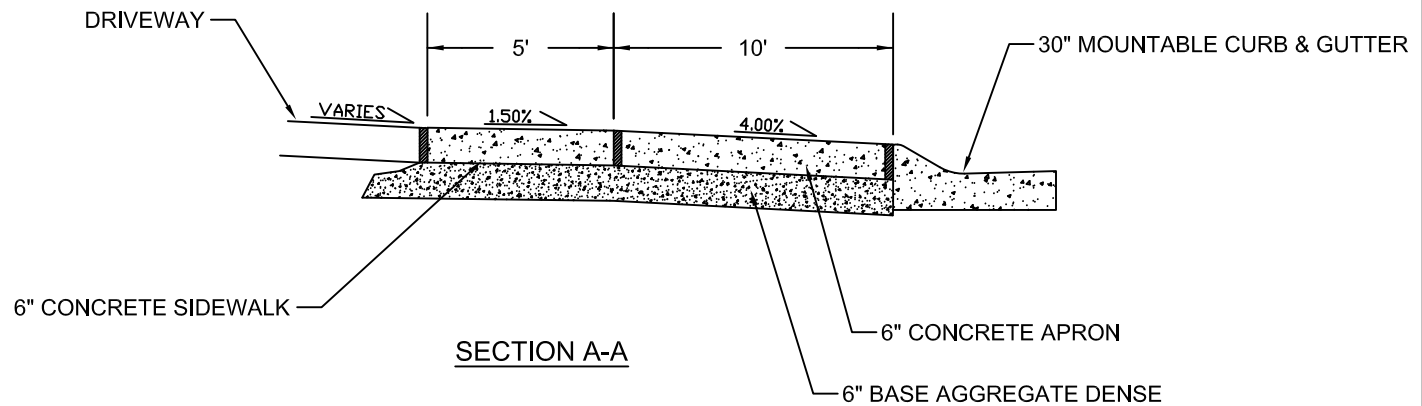
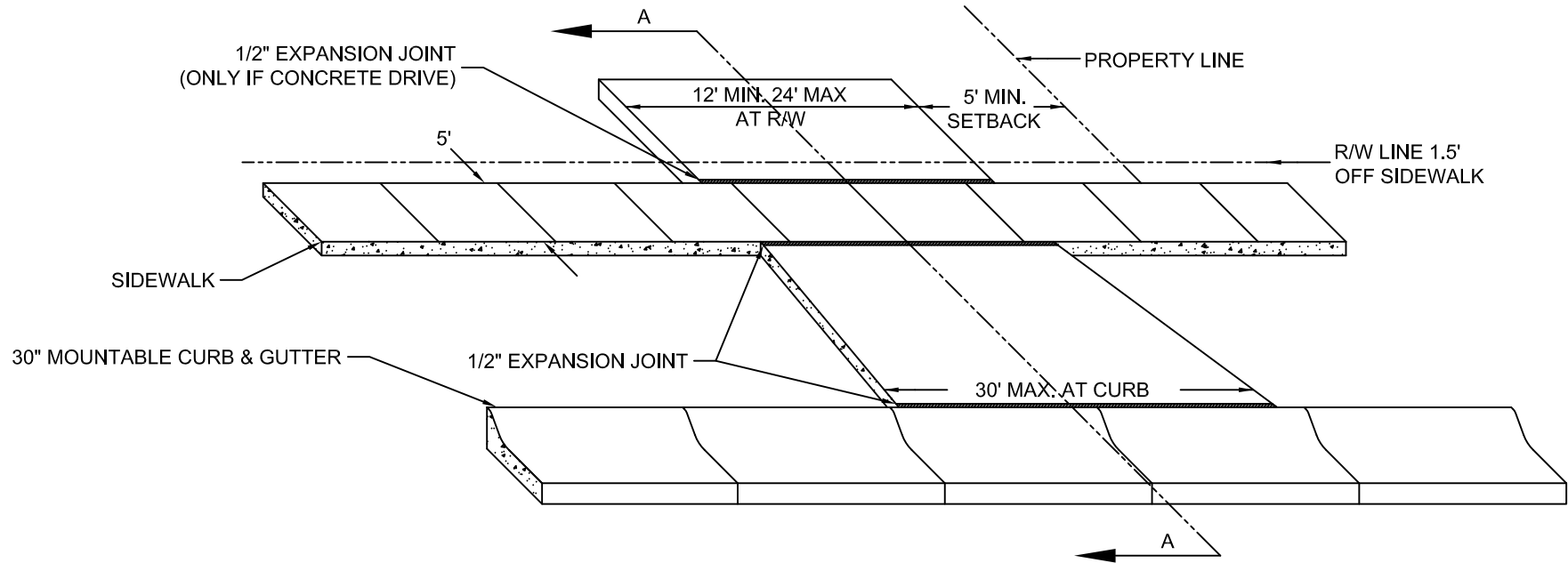
DETAIL: RD - 11

CREATED: 2-11-14

REVISED: 12-1-15

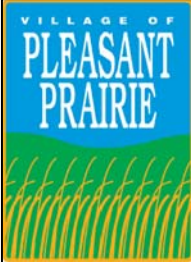
APPROVED BY: MATT FINEOUR





- NOTE:
1. ALL CONCRETE SIDEWALK SHALL BE 5" THICK EXCEPT FOR AT DRIVEWAYS WHERE IT SHALL BE 6" THICK.
 2. ALL SIDEWALK BASE SHALL BE 4" THICK EXCEPT FOR AT DRIVEWAYS WHERE IT SHALL BE 6" THICK.
 3. SIDEWALK JOINT SPACING SHALL MATCH ADJACENT SIDEWALK.

SCALE: NTS



STANDARD CONCRETE DRIVE APPROACH (MOUNTABLE CURB)

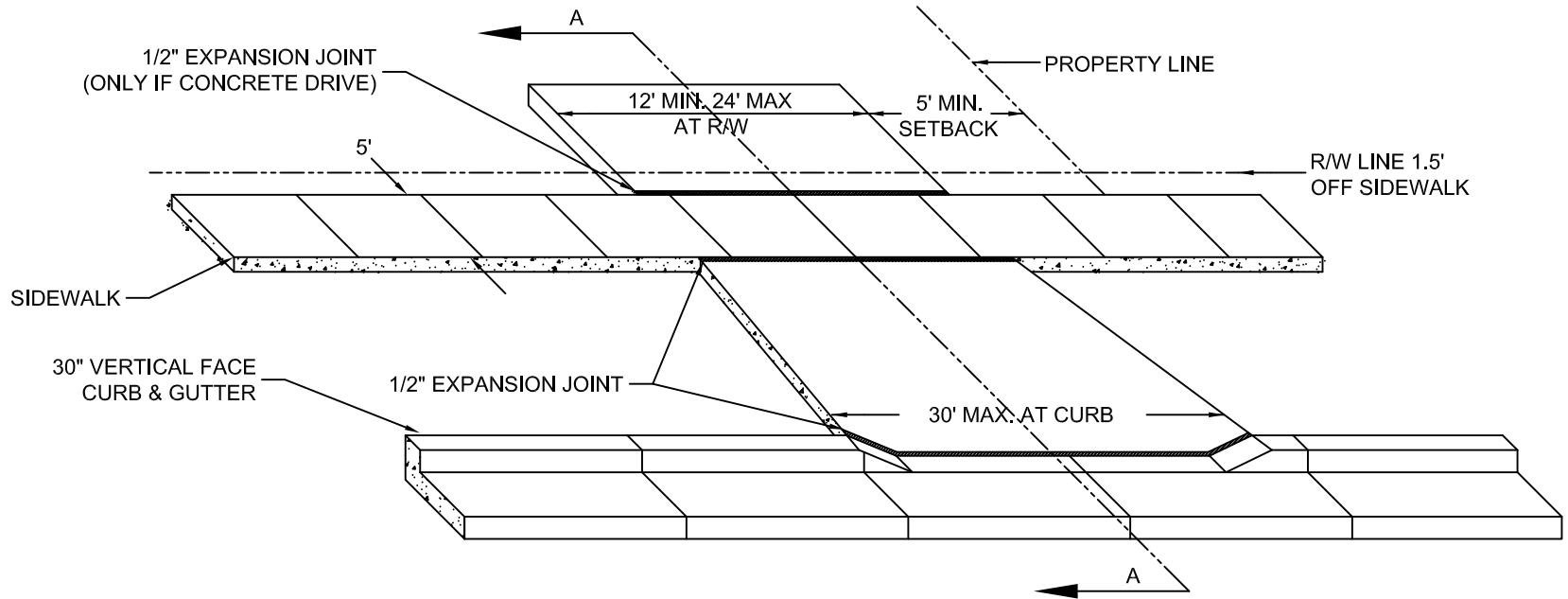
DETAIL: RD - 12

CREATED: 2-12-14

REVISED: 12-1-15

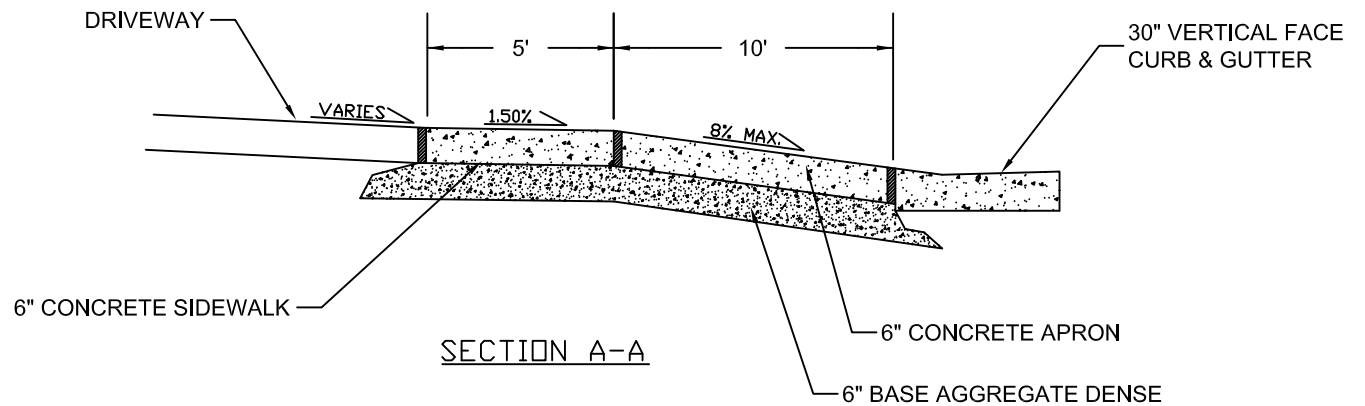
APPROVED BY: MATT FINEOUR



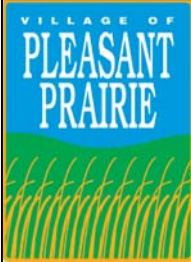


NOTE:

1. ALL CONCRETE SIDEWALK SHALL BE 5" THICK EXCEPT FOR AT DRIVEWAYS WHERE IT SHALL BE 6" THICK.
2. ALL SIDEWALK BASE SHALL BE 4" THICK EXCEPT FOR AT DRIVEWAYS WHERE IT SHALL BE 6" THICK.
3. SIDEWALK JOINT SPACING SHALL MATCH ADJACENT SIDEWALK.
4. REMOVE CURB AND GUTTER TO NEAREST JOINT AND REPLACE WITH DRIVEWAY SECTION. CURB HEAD MAY NOT BE CUT OFF IN LIEU OF CURB AND GUTTER REPLACEMENT.



SCALE: NTS



**STANDARD CONCRETE DRIVE APPROACH
(VERTICAL CURB)**

DETAIL: RD - 13

CREATED: 2-11-14

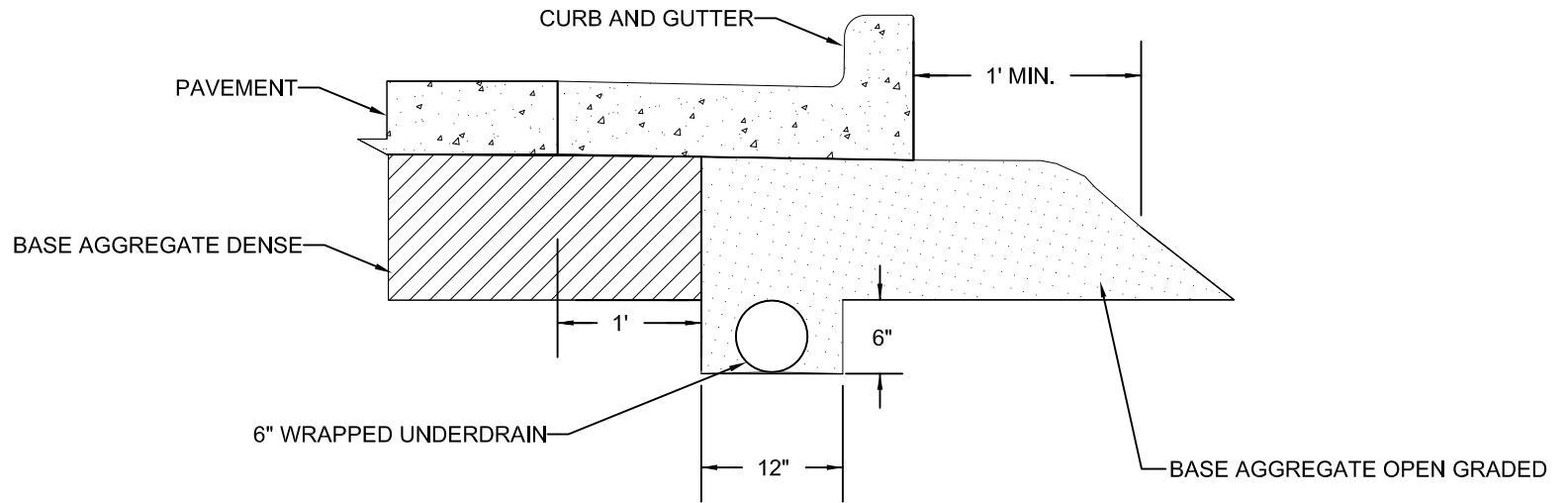
REVISED: 12-1-15

APPROVED BY: MATT FINEOUR

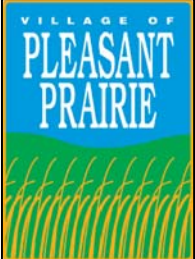


NOTE:

- 1. PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.



SCALE: NTS



EDGEDRAIN IN URBAN ROADWAY

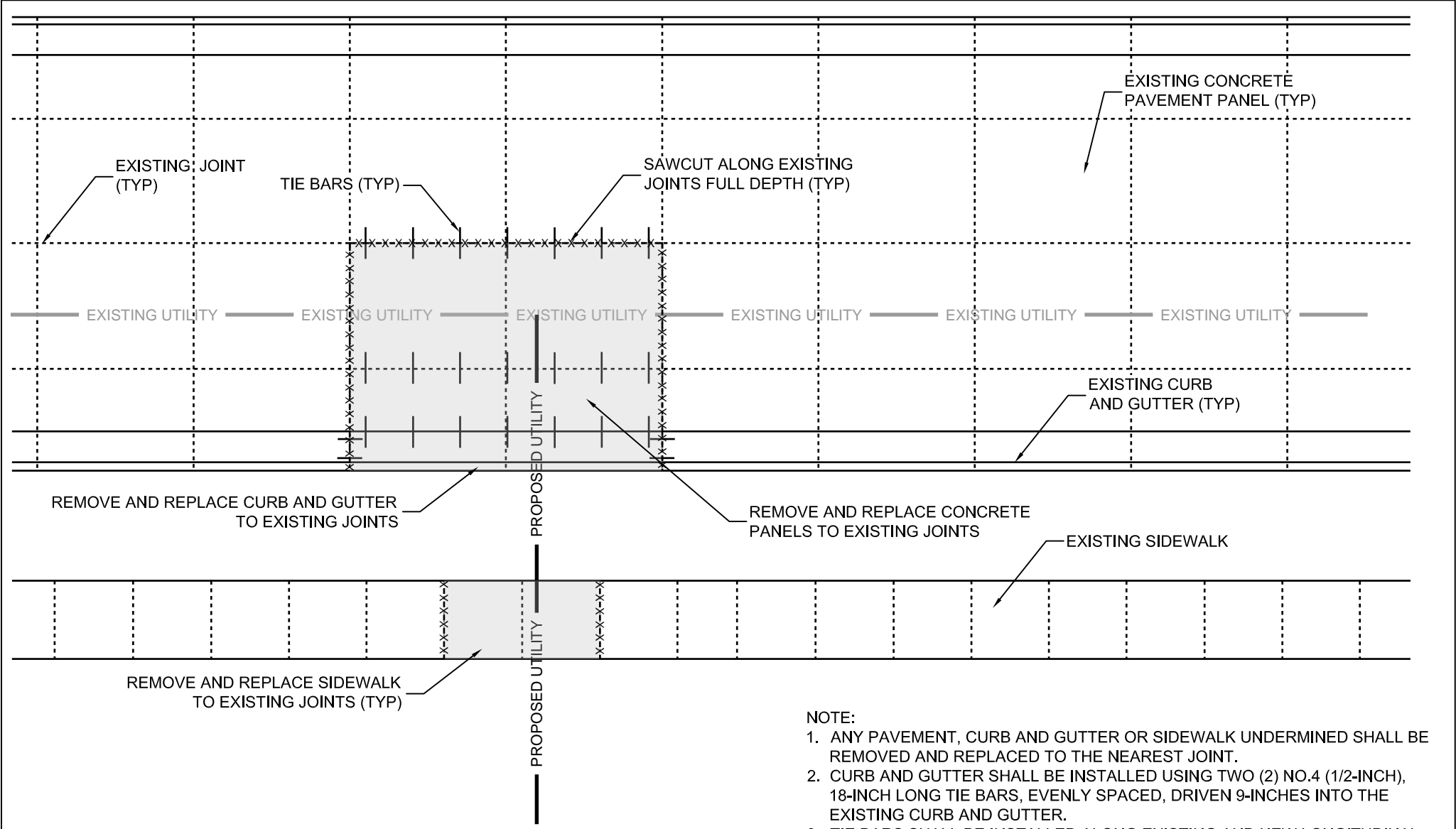
DETAIL: RD - 14

CREATED: 2-7-14

REVISED: 12-2-15

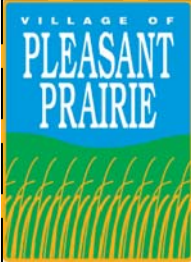
APPROVED BY: MATT FINEOUR





- NOTE:
1. ANY PAVEMENT, CURB AND GUTTER OR SIDEWALK UNDERMINED SHALL BE REMOVED AND REPLACED TO THE NEAREST JOINT.
 2. CURB AND GUTTER SHALL BE INSTALLED USING TWO (2) NO.4 (1/2-INCH), 18-INCH LONG TIE BARS, EVENLY SPACED, DRIVEN 9-INCHES INTO THE EXISTING CURB AND GUTTER.
 3. TIE BARS SHALL BE INSTALLED ALONG EXISTING AND NEW LONGITUDINAL JOINTS. USE NO.4 (1/2-INCH), 24-INCH LONG TIE BARS AT 36-INCH ON CENTER SPACING, DRIVEN 12-INCHES INTO THE EXISTING CURB AND GUTTER.
 4. REFER TO VILLAGE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

SCALE: NTS



UTILITY PATCH DETAIL (COMPOSITE AND CONCRETE ROADWAYS)

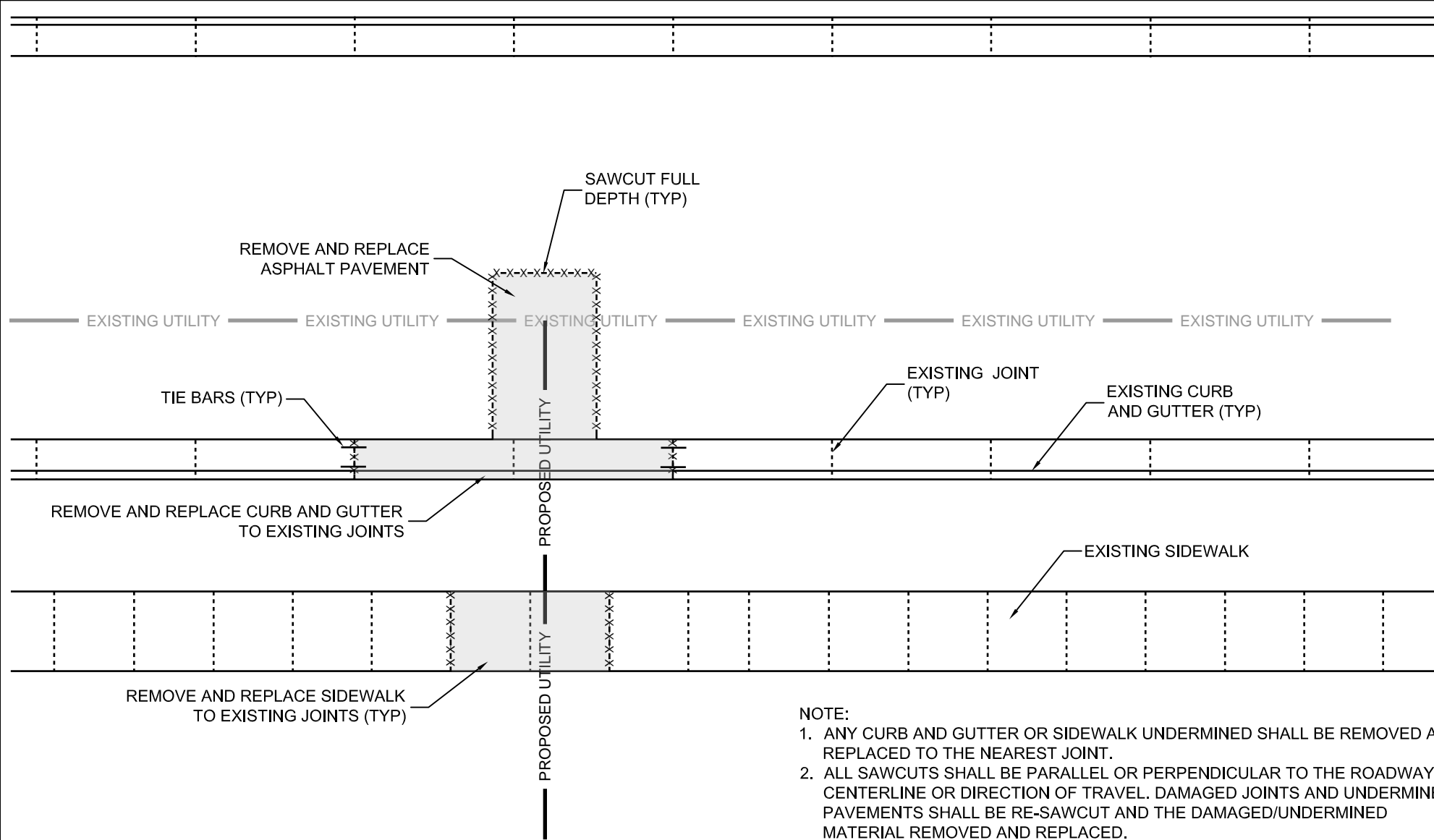
DETAIL: RD - 15

CREATED: 2-10-16

REVISED: 2-10-16

APPROVED BY: MATT FINEOUR





- NOTE:**
1. ANY CURB AND GUTTER OR SIDEWALK UNDERMINED SHALL BE REMOVED AND REPLACED TO THE NEAREST JOINT.
 2. ALL SAWCUTS SHALL BE PARALLEL OR PERPENDICULAR TO THE ROADWAY CENTERLINE OR DIRECTION OF TRAVEL. DAMAGED JOINTS AND UNDERMINED PAVEMENTS SHALL BE RE-SAWCUT AND THE DAMAGED/UNDERMINED MATERIAL REMOVED AND REPLACED.
 3. CURB AND GUTTER SHALL BE INSTALLED USING TWO (2) NO.4 (1/2-INCH), 18-INCH LONG TIE BARS, EVENLY SPACED, DRIVEN 9-INCHES INTO THE EXISTING CURB AND GUTTER.
 4. REFER TO VILLAGE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

SCALE: NTS



UTILITY PATCH DETAIL (ASPHALT ROADWAYS)

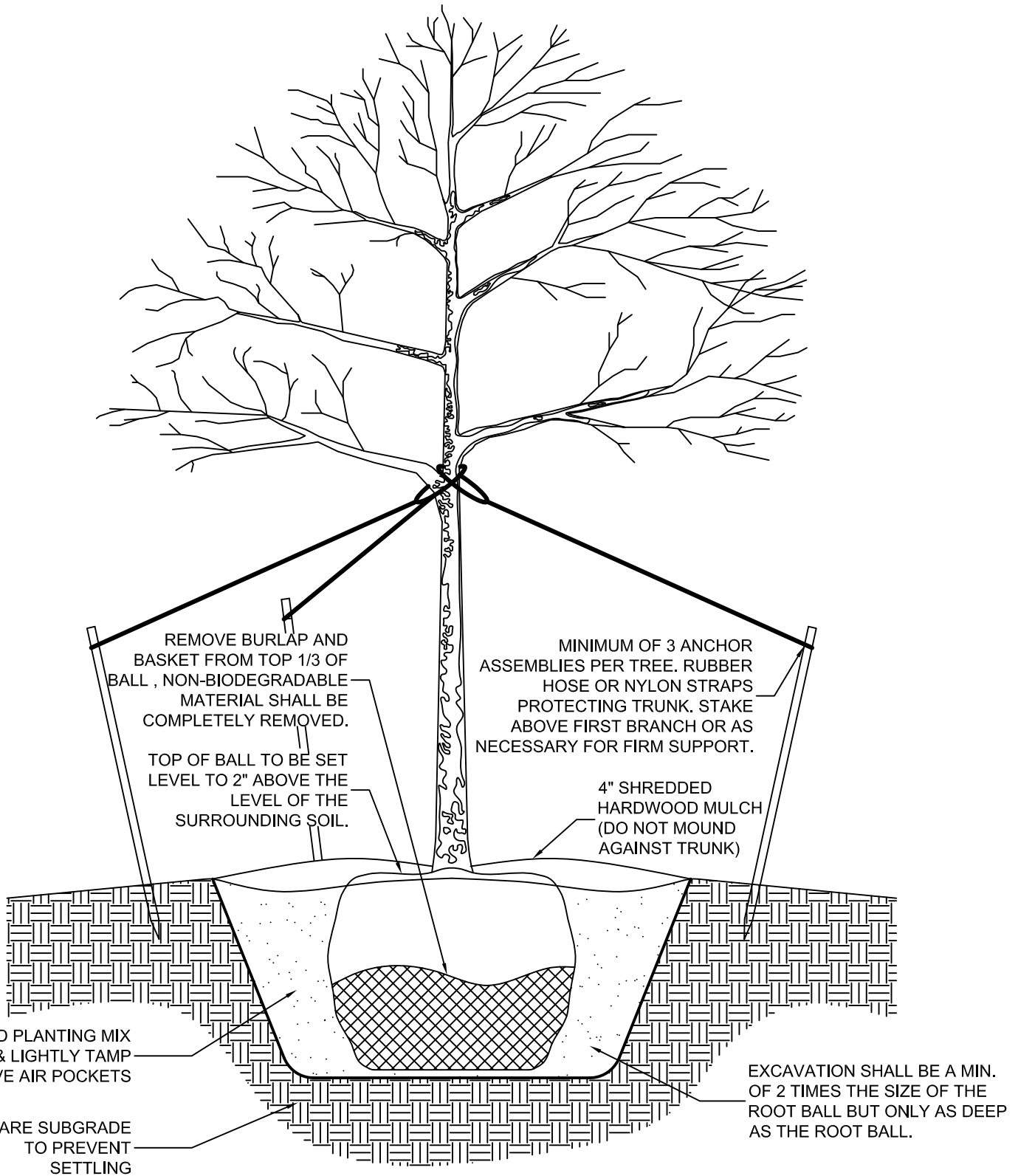
DETAIL: RD - 16

CREATED: 2-10-16

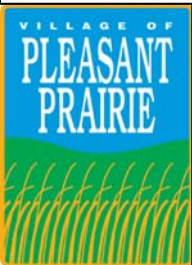
REVISED: 2-10-16

APPROVED BY: MATT FINEOUR





SCALE: NTS



STREET TREE PLANTING DETAIL

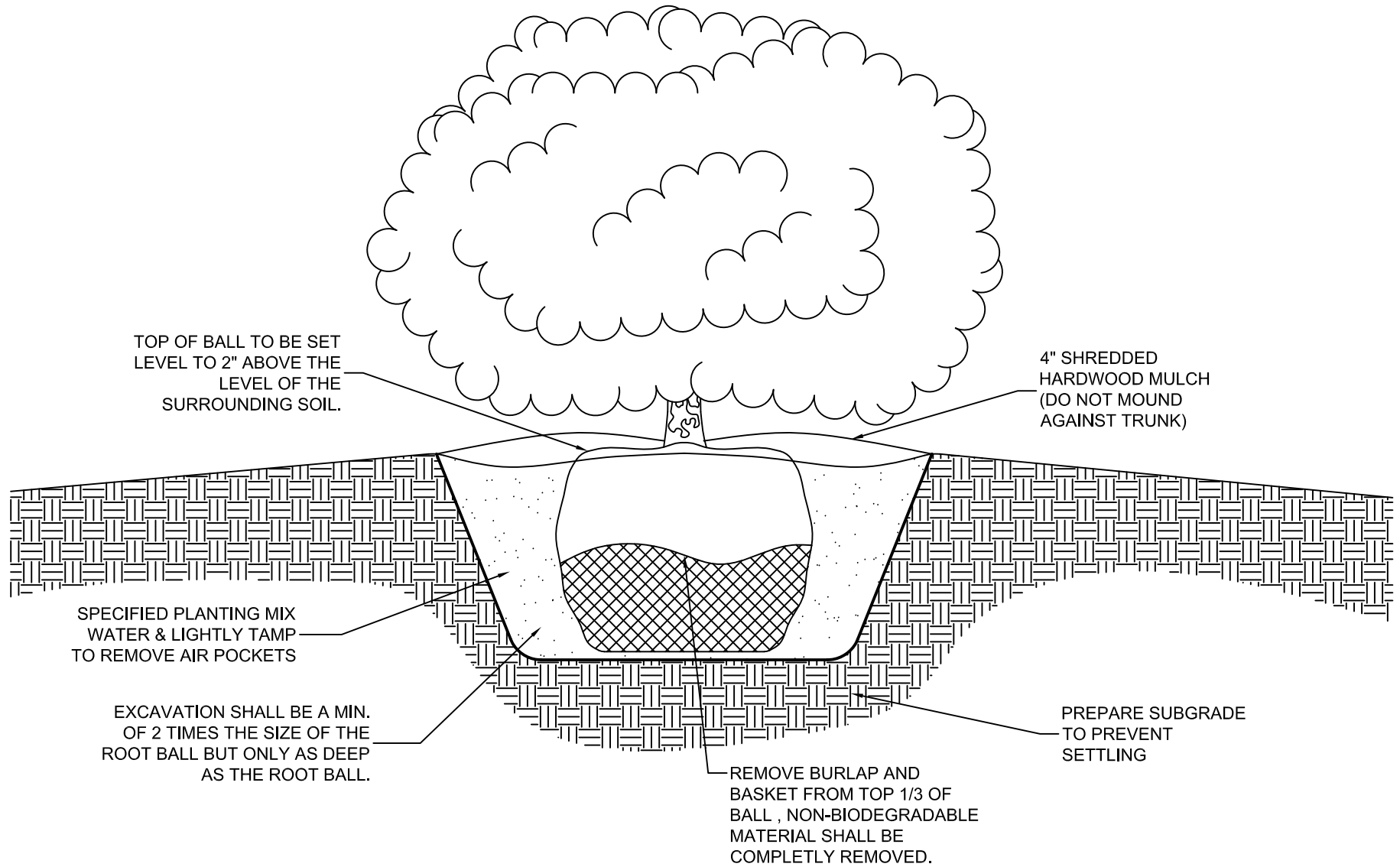
DETAIL: L - 1

CREATED: 11-6-13

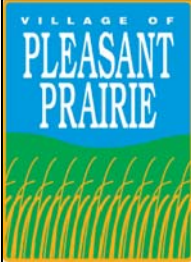
REVISED: 11-11-15

APPROVED BY: MATT FINEOUR





SCALE: NTS



SHRUB PLANTING DETAIL

DETAIL: L - 2

CREATED: 11-06-13

REVISED: 11-18-15

APPROVED BY: MATT FINEOUR



The following code does not display images or complicated formatting. Codes should be viewed online. This tool is only meant for editing.

Chapter 405

Public Improvement Projects

[HISTORY: Adopted by the Village Board of the Village of Pleasant Prairie 12-20-2004 by Ord. No. 04-63. Amendments noted where applicable.]

GENERAL REFERENCES

Contractors — See Ch. **150**.

Sewers — See Ch. **285**.

Stormwater storage facilities — See Ch. **300**.

Streets and sidewalks — See Ch. **305**.

Water — See Ch. **355**.

Building and Mechanical Code — See Ch. **370**.

Land division and development control — See Ch. **395**.

§ 405-1 Adoption of sewer and water specifications; exceptions.

- A. The Village adopts the Standard Specifications for Sewer and Water Construction in Wisconsin, 6th Edition, December 2003, as amended from time to time (hereinafter referred to as "Standard Specifications"), with the following exceptions:
- (1) Section 2.6.14(a) related to consolidated backfill is deleted.
 - (2) Section 2.7.3(a) related to replacement of pavements is amended to read as follows: "The backfill material in the sewer or water trench shall be consolidated in accordance with Section 2.6.14 of these specifications."
 - (3) Section 3.2.6(a) related to pipe sewer bedding sections is amended by deleting the following language: "If, in the opinion of the Engineer, a dry and firm trench bottom exists, he may at his option allow a substitute bedding material conforming to the requirements of Section 8.43.2(b) or 8.43.3 to be used instead of crushed stone chips. If this substituted material is used, an appropriate credit shall be negotiated. After the pipe has been properly laid and jointed, cover material conforming to Section 8.43.3 shall be placed around the sides of the pipe less than 36 inches in diameter and up to a level six inches above the pipe barrel. This material shall be placed by hand or equally careful means."
 - (4) Section 3.2.6(b)2 related to pipe sewer bedding sections is amended by deleting the following language: "If crushed stone chips or other materials conforming to Section 8.43.2(a) are used as bedding and cover material, no compaction is required."
 - (5) The first sentence in the second paragraph of Section 3.2.6(i)1 related to polyvinyl chloride sewer pipe is deleted.
 - (6) The second sentence in the second paragraph after Table 1 of Section 3.2.6(i) is deleted.

- (7) Section 3.2.6(i)1 related to polyvinyl chloride sewer pipe is amended by deleting the following language: "If the crushed stone chips or other materials conforming to Section 8.43.2(a) are used as cover material, no compaction or staging is required."
- (8) Section 3.2.6(j)1 and 2 related to ABS or PVC composite sewer pipe are amended by deleting the following language: "If the crushed stone chips or other materials conforming to Section 8.43.2(a) are used as cover material, no compaction or staging is required."
- (9) Section 3.2.6(j)2 related to ABS or PVC composite sewer pipe is deleted.
- (10) The following wording shall be deleted from the second sentence in Section 3.2.6(l): "to a depth not to exceed 12 inches."
- (11) Section 3.2.10(a)2, 4 and 6 related to type of joint to be used on pipe sewers are deleted.
- (12) Section 3.2.25(a) related to bulkheads is amended by deleting the following language: "precast vitrified clay disc stoppers with factory fabricated resilient joints for vitrified clay pipe, and precast mortar disc stoppers for concrete pipe and."
- (13) Section 3.2.25(b) related to bulkheads is amended to read as follows: "Connections 27 inches in diameter and larger shall be bulkheaded with an approved plug."
- (14) Section 3.2.26 related to risers is amended by deleting Type A, Type B and Type C risers.
- (15) Section 3.2.26, Type D Risers, is amended by deleting the following:
 - (a) "If crushed stone chips or other materials conforming to Section 8.43.2(a) are used as cover material and backfill, no compaction or staging is required. See File No. 10E."
 - (b) "For risers encased in concrete, support for the building sewer between the connection at the riser and the undisturbed trench wall shall be provided by an approved reinforced concrete beam between the riser and the trench wall. A reinforced concrete beam as designed shall extend into the trench wall a minimum of three feet. The concrete encasement of the building sewer shall extend up to but not beyond the bell face of the next joint. See File Nos. 10A, 10B, 10C and 10 D."
- (16) Section 3.4.1 related to reconnecting existing sewer building sewer and drains is amended by deleting the following language: "All building sewer reconnected to new sewers or manholes shall be supported by a wall made of backfill concrete extending from the main sewer to the outside limit of trench. The wyes and all bends used in reconnecting the building sewer shall be encased in backfill concrete. This backfill concrete shall conform to the requirements of Section 8.35.4."
- (17) The second sentence in Paragraph 3 in Section 3.5.4(d) related to walls, corbel and chimney is amended to read as follows: "A chimney having a minimum height of six inches constructed of precast adjusting rings shall be built on top of the corbel section or flat slab up the elevation at which the frame is set."
- (18) The second sentence in Section 3.5.4(e) related to castings, manholes, frames and covers is deleted.
- (19) In Section 3.5.4.1(a) related to Type III mortar joints the words "or external" in the first sentence are deleted.
- (20) Section 3.5.4.1(b) and (c) related to frame/chimney joints are deleted.
- (21) The first paragraph in Section 3.5.5.2(a) related to mortar and butyl rubber seals is deleted.
- (22) The word "storm" is added in the first sentence between the words "The" and "manhole" in Section

3.5.5.3.

- (23) Section 3.5.5.4 related to elastomeric waterproofing seals is deleted.
- (24) Section 3.5.7(a)1b related to pipe to manhole connections is deleted.
- (25) The following language in Section 3.7.1 is deleted: "The water infiltration or water infiltration test may be substituted for the low pressure air test when testing pressure pipe used for gravity sewer service if the pressure pipe fails the low pressure air test."
- (26) The first paragraph in Section 3.7.2 related to water infiltration test is deleted.
- (27) Section 4.3.3 related to bedding is amended to require the bedding to be placed around the sides of the pipe and up to a level 12 inches above the pipe barrel.
- (28) Section 4.3.14c related to wire to surface is amended by deleting the words "valve boxes."
- (29) Section 4.4.2(c) related to lead joints including Table 9 is deleted.
- (30) Chapter 4.5.0 titled "Prestressed Concrete Water Main" is deleted.
- (31) Section 4.6.3 related to use for hydrant branch is deleted.
- (32) Section 4.8.2 related to gate valves and boxes is amended to delete the reference to File No. 37 and to insert "see Village Special Provisions Appendix A, Detail W-4."
- (33) The last paragraph in Section 4.15.1 related to a combination leak pressure test is deleted.
- (34) The last sentence in Section 4.15.3 is amended to read as follows: "The duration of the leakage test shall be three hours unless otherwise specified."
- (35) Section 5.3.7 related to connection of building sewer to a manhole is deleted.
- (36) In Section 5.3.10 and Table 11 related to the type of pipe to be used, the following pipe types are deleted: vitrified clay, concrete, and ABS.
- (37) The following types of pipe in Table 12 are deleted: extra-strength clay; nonreinforced concrete, Class 3; reinforced concrete, Class IV, and ABS-SDR 35.
- (38) Section 5.4.2 related to water exfiltration test is deleted.
- (39) In Section 5.5.2(a) related to tap water services the last sentence is deleted.
- (40) Section 5.5.5 related to lead joints is deleted.
- (41) The words "lead joint or" in the second paragraph in Section 5.5.16 related to closing end of service pipe are deleted.
- (42) The last sentence in Section 7.1.2(a) is amended to read: "The view seen by the television camera shall be transmitted to a monitor of not less than 12 inches."
- (43) Chapter 8.4.0 related to clay sewer pipe including Table 13 is deleted.
- (44) Chapter 8.5.0 related to nonreinforced concrete sewer pipe including Table 14 is deleted.
- (45) Chapter 8.9.0 related to polyvinyl chloride (PVC) corrugated sewer pipe including Tables 18 and

18A is deleted.

- (46) Chapter 8.11.0 related to ABS and PVC composite sewer pipe and fittings including Table 20 is deleted.
- (47) Chapter 8.12.0 related to ABS solid wall sewer pipe and fittings including Table 21 is deleted.
- (48) Chapter 8.13.0 related to cast-iron soil pipe and fittings is deleted.
- (49) Chapter 8.19.0 related to prestressed concrete pressure water pipe, steel cylinder type for water main is deleted.
- (50) Section 8.23.1 related to lead for caulking water pipes is deleted.
- (51) Section 8.23.3 related to nuts and bolts is amended to read as follows: "All nuts and bolts used for joint assembly shall be made of stainless steel."
- (52) The nozzle treads for fire hydrants entry is amended to read: "Kenosha Standard Threads."
- (53) Chapter 8.38.0 related to concrete brick and block masonry units is deleted.
- (54) The following detailed drawings are deleted from Part IX:
 - (a) File No. 10A.
 - (b) File No. 10B.
 - (c) File No. 10C.
 - (d) File No. 10D.
 - (e) File No. 37.

§ 405-2 Adoption of Department of Transportation specifications.

The Village adopts the State of Wisconsin Department of Transportation Standard Specifications for Highway and Structure Construction, 6th Edition, as amended from time to time (hereinafter referred to as "State Specifications").

§ 405-3 Special provisions.

In addition to the specifications provided in §§ **405-1** and **405-2** above, the following special provisions are adopted. In the event of a conflict between this section and §§ **405-1** and **405-2** above, the following special provisions shall govern:

A. Sanitary sewer construction.

(1) Bedding and cover material.

(a) PVC pipe.

- [1] Cover material shall be the same material as used for bedding and shall conform to Section 8.43.2(a) of the Standard Specifications, Class "B" bedding. Bedding and cover material shall be placed in a minimum of three separate lifts or as required to ensure eighty-five-percent standard proctor compaction of these materials, with one lift of bedding material ending at or near the springline of the pipe. The contractor shall take care to completely work bedding material under the haunch of the pipe to provide adequate side support.

- [2] Bedding material placed around pipes 18 inches in diameter and larger shall be mechanically compacted at a level equal to the springline of the pipe.
- (b) Reinforced concrete, ductile iron, prestressed concrete, nonreinforced concrete and clay pipe.
- [1] Class "C" bedding conforming to Section 3.2.6(a) and File No. 3 of the Standard Specifications.
- [2] Class "B" bedding conforming to Section 3.2.6(b) and File No. 4 of the Standard Specifications.
- [3] Class "A" bedding conforming to Section 3.2.6(c) and File No. 5 (concrete cradle) or Section 3.2.6(d) and File No. 6 (concrete cap) of the Standard Specifications.
- [4] Class "C" bedding may be used if approved by the Village Engineer.
- (2) Sanitary sewer main and lateral materials.
- (a) Sanitary sewer pipe material shall be polyvinyl chloride (PVC). Pipe shall conform to the following:
 - [1] Polyvinyl chloride (PVC) sewer pipe, four-inch through fifteen-inch diameter, meeting the requirements of ASTM D-3034, SDR-35, shall be used, unless loading dictates a stronger pipe, with integral bell-type flexible elastomeric joints meeting the requirements of ASTM D-3212.
 - [2] Polyvinyl chloride (PVC) large diameter solid wall sewer pipe, eighteen-inch through twenty-seven-inch diameter, meeting the requirements of ASTM F-679, Type T-1, with a minimum pipe stiffness of 46 psi and having integral bell-type flexible elastomeric joints meeting the requirements of ASTM D-3212. Lateral pipe material shall conform to the requirements of Subsection A(2)(a)[1] above.
 - [3] Polyvinyl chloride (PVC) pressure pipe, four-inch through twelve-inch diameter, meeting the requirements of ASTM D-2241, SDR-26 (160 psi) or SDR-21 (200 psi), with integral bell-type flexible elastomeric joints meeting the requirements of ASTM D-3212.
 - [4] The following pipe materials may be approved by the Village prior to design:
 - [a] Reinforced concrete sanitary sewer pipe (RCP) meeting the requirements of ASTM C-76 with rubber gasket joints conforming to ASTM C-443.
 - [b] Ductile iron pipe meeting the requirements of AWWA Standard C-151 (ANSI 21.51), non-shrink grout lined with internal and external bituminous coating and furnished with either push-on or mechanical rubber gasket joints equipped to provide cable bonding for electrical continuity or mechanical joints with lead-tipped rubber gaskets. Ductile iron pipe shall be wrapped with polyethylene wrap meeting the requirements of AWWA Standard C-105 (ANSI A21.5) using Class C (black) polyethylene material and shall be installed as specified in Chapter 4.4.4 of the Standard Specifications.
 - [c] Prestressed concrete pressure pipe, steel-cylinder type, meeting the requirements of AWWA Standard C-301, with steel joint rings and rubber gaskets. Prestressed concrete pressure pipe shall be SP-5 conforming to GHA Lock Joint Specification SP-5 or equal.
- (b) Well protection piping.
 - [1] Sanitary sewer pipe material located within 25 to 50 feet of private wells shall be polyvinyl chloride (PVC) pressure pipe conforming to AWWA C-900, Class 150, DR-18, or ASTM D2241, CL 250, SDR-18, with integral elastomeric bell and spigot joints. The pressure pipe shall be connected to the sewer pipe with an approved adapter.
 - [2] Sanitary sewer lateral pipe material within eight to 25 feet of private wells shall be plastic sewer pipe

conforming to the requirements for PVC sewer pipe.

(3) Sanitary manholes.

(a) Standard manhole.

[1] Sanitary manholes shall be constructed in accordance with Chapter 3.5.0 and File Nos. 12, 12A, 13, 13A and 15 of the Standard Specifications and these special provisions.

[2] Manholes shall be precast forty-eight-inch inside diameter with eccentric cones.

[a] A minimum of three inches to a maximum of 18 inches of adjusting rings shall be required for all manholes.

[b] Manhole covers shall be placed to match the existing grade or at the elevation approved by the Village Engineer.

[3] Manhole steps shall be OSHA approved and fabricated using three-eighths-inch minimum diameter steel grade 60 reinforcing rod with molded plastic covering.

[4] Manhole frames and covers shall be Neenah R-1580 with Type "B" self-sealing lids, non-rocking, or equal. Manhole frames shall be centered on the top of the cone.

(b) Frame/chimney joints.

[1] Type I. All sanitary manholes located within bituminous or concrete pavements and/or as approved by the Village Engineer and all waterproof manholes shall be constructed with Type I frame/chimney joints. Type I joints shall consist of the following:

[a] The manhole frame shall be set on a bed of non-shrink grout, 3/4 inch minimum thickness, extending the full width of and continuously around the top of the chimney. The inner and outer faces of the non-shrink grout joint shall be trowel finished.

[b] Non-shrink grout shall be a premixed, nonmetallic, cementitious, controlled expansion, high strength, versatile grout; PenngROUT by IPA Systems, Inc., or equal.

[c] Adjusting rings shall be set with butyl rubber sealant troweled into a one-fourth-inch thick layer over the entire surface area of the top of cone and all adjusting rings, except as specified in Subsection **A(1)** above. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade or equal.

[d] Type I joints, on manholes located within the construction limits of new roads, shall be provided with an internal manhole chimney seal as manufactured by Cretex Specialty Products, Waukesha, Wisconsin. (See File No. 12A in the Standard Specifications.)

[2] Type II. All sanitary manholes located within road shoulders and terraces and at other areas not specified for Type I joints shall be constructed with Type II frame/chimney joints. Type II joints shall consist of the following:

[a] Adjusting rings and manhole frames shall be set with butyl rubber sealant troweled into a one-fourth-inch-thick layer over the entire surface areas of the top of cone and all adjusting rings. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade or equal.

[b] A triple layer of eight mil polyethylene wrap shall be applied around the manhole from the top of the frame to a minimum depth of 84 inches. The wrap shall extend at least 18 inches below the cone section. The wrap shall be applied as a bag or a sheet wrapped around the manhole in a continuous

manner with seams bonded with waterproof tape.

- [3] The interior and exterior dimension of the top of the cone section and adjusting rings shall be equal and these surfaces shall be constructed flush with each other.
- (c) Sealing manhole chimneys. The entire outside surface of the manhole chimney, including all adjusting rings and overlapping both the manhole cone or flat-top slab (a minimum of four inches) and the manhole frame, shall be covered with a minimum one-fourth-inch thick coating of butyl rubber sealant. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade or equal.
- (d) Manhole riser joints. Joints for precast manhole riser sections shall be made with rubber O-ring gaskets, a continuous ring of butyl rubber sealant (EZ-Stik or Kent-Seal in rope form) or equal. The butyl sealant shall be one-inch diameter equivalent or as recommended by the manhole manufacturer.
- (e) Manhole lifting holes. All lifting holes in precast manhole sections shall be plugged using rubber plugs supplied by the manhole supplier, non-shrink grout or other approved method. Non-shrink grout shall fill the entire void and shall be troweled at each face to provide smooth surfaces. Cement mortar shall not be used to plug lifting holes.
- (f) Manhole pipe connections.
 - [1] Connections of pipes to manholes shall be made in accordance with Section 3.5.7 of the Standard Specifications. All field tapped holes for connecting sewer pipe to manholes shall be made by coring.
 - [2] All plastic pipe shall be connected to manholes by means of flexible watertight pipe to manhole seals in accordance with Section 3.5.7(c). Manhole seals shall be K- or N-seal, link seal or equal. All clamps, bolts, etc., of pipe to manhole seals shall be stainless steel. If link seal connectors are used, the bolt heads shall be placed on the inside of manholes.
- (g) Drop manholes. Drop manholes shall be constructed in accordance with Section 3.5.8(d), File No. 19 or 20 of the Standard Specifications and the requirements of these special provisions.
- (h) Waterproof manholes. Waterproof manholes shall be constructed the same as standard manholes except that they shall be furnished with waterproof frames and lids and Type I frame/chimney joints.
 - [1] Waterproof frames and lids shall be Neenah R-1755-C with Type "C" lid (and security saddle plate) or equal.
 - [2] The contractor shall also furnish one heavy-duty padlock for each waterproof manhole and three matching keys fitting all padlocks. Padlocks shall be "Master" one-and-one-half-inch steel padlocks, No. 3-D, with pin tumbler, or equal.
- (i) Manhole infiltration inspection.
 - [1] The contractor, accompanied by the Village or its representative, shall reinspect all manholes approximately six months after completing work on this project to check for manhole infiltration and to observe the general condition of the manhole. All active or flowing leaks and any other necessary repairs shall be corrected prior to final acceptance of the work.
 - [2] The contractor shall contact the Village's Utilities Superintendent to coordinate the timing and scheduling of this work.
- (j) Manhole markers. The contractor shall place steel markers at all manhole locations. The markers

shall be placed parallel to the adjacent manhole three feet behind the proposed curb/gutter. Markers shall extend at least two feet below finished grade and four feet above finished grade. Markers shall be painted orange.

- (4) Laterals.
 - (a) General.
 - [1] Connections to the main sewer.
 - [a] Building sewer (lateral) connections to the main sewer shall be made with wyes except as noted below. The ends of laterals shall be plugged in accordance with Section 3.2.5(f) of the Standard Specifications.
 - [b] Place wyes at a typical vertical angle of 45° to the horizontal except install wyes flat or level, as approved by the Village Engineer.
 - [c] Risers details: see Appendix A, Details SAN-2, SAN-3 and SAN-4.
 - (b) Grade. Install sewer laterals at a typical grade of 2.08% (1/4 inch per foot) unless otherwise approved by the Village Engineer. [Minimum lateral grade is 1.04% (1/8 inch per foot).]
 - (5) Marker stakes.
 - (a) The contractor shall furnish and install a marker stake over the end of each lateral installed. The marker shall be a minimum two-inch by four-inch wooden plank. The marker shall be placed vertically with its top flush with the surface grade. The bottom of the stake should be extended to the top of the bedding material. Place a spike or other durable magnetic material in the top of the marker stake to aid in future relocation.
 - (b) Industrial park. Place two marker stakes at the end of each lateral installed. Bury one stake vertically with its bottom at the top of the sewer bedding material and place the second stake as indicated above.
 - (6) Sewer lateral location. Place sewer laterals outside of existing or future driveways.
 - (7) Connections to existing sewers.
 - (a) Sewer stub connections. Sewer connections to existing sewer stubs of different type of material or joint shall be made with approved watertight adapters.
 - (b) Plug downstream manhole. Place temporary plugs in all downstream (receiving) manholes to prevent groundwater and debris from entering the existing sewer system. Plugs shall remain in place until authorized to be removed by the Village
 - (8) Deflection testing.
 - (a) Polyvinyl chloride (PVC) sewer pipe shall be deflection tested with an approved go-no-go acceptance testing device. The test shall not be conducted until after all backfill has been placed and consolidated and after riser pipes and sewer laterals have been installed. The entire length of sewer pipe shall be tested.
 - (b) PVC pipe shall not be deflection tested until at least 14 days after all backfill has been placed, including backfilling of laterals and risers. Initial deflection testing shall be done using a 95% mandrel. The use of a 92.5% testing device will not be allowed for initial testing regardless of the time elapsed after backfilling.

- (c) All sections failing to pass the test shall be repaired and retested; however, if at least 30 days have elapsed since the pipe was placed and backfilled, the contractor will be allowed to retest the sewer line using a 92.5% mandrel.
- (9) Leakage testing; low-pressure air test. Amend Section 3.7.1 of the Standard Specifications to read in part: "Sanitary sewers less than or equal to 36 inches in diameter shall be tested for leakage using the low-pressure air test. The length of laterals included in the test section shall be included in determining the test time."
- (10) Televising sewers.
 - (a) All sewer lines will be televised by the Village after they have successfully passed deflection and leakage testing, at the developer's/contractor's cost, prior to final acceptance of this work and following base course installation. Prior to televising, the contractor shall clean all lines and manholes.
 - (b) All defects identified by the television inspection shall be corrected and any dirt, gravel or foreign material removed from the sewer prior to acceptance by the Village.
- (11) Manhole vacuum testing.
 - (a) The contractor shall conduct a vacuum test on all manholes in accordance with Section 3.7.6 of the Standard Specifications. Any manholes which fail the vacuum test shall be repaired and retested.
 - (b) Testing of manhole chimney is required.
- B. Water main construction.
 - (1) Bedding and cover material.
 - (a) Ductile iron pipe. Bedding and cover material used with ductile iron water main encased in polyethylene wrap shall be bedding sand conforming to Section 8.43.2(c) of the Standard Specifications.
 - (b) Polyvinyl chloride pipe. Bedding and cover material shall be sand, crushed stone chips or crushed stone screenings conforming to Section 8.43.2 of the Standard Specifications. Crushed pea gravel is not allowed.
 - (2) Polyethylene wrap. Polyethylene wrap shall be provided on all ductile iron water main and cast-iron or ductile iron fittings. All joint restraint systems shall be enclosed within the wrap.
 - (3) Sewer crossings. Center one full length of water main pipe on sewers wherever water main crosses over or under a sanitary or storm sewer so that both water main joints will be as far from the sewer as possible.
 - (4) High points in water main. The contractor shall install water main at the grades as approved by the Village Engineer with no high points constructed in the main except at hydrants and as approved by the Village Engineer. If a high point which could trap air cannot be prevented, then an air release assembly shall be constructed at that point. The Village reserves the right to order the contractor to relay water main placed at the wrong grade.
 - (5) Joint restraint.
 - (a) Restraining fittings, valves and sleeves.
 - [1] Restrain all fittings (bends, tees, caps and plugs), valves and sleeves using MEGALUG restrained

joints or as specified in Subsection **B(5)(d)** below.

- [2] Buttress all fittings, as provided for in Subsection **B(5)(c)** below, in addition to joint restraint.
- (b) Concrete blocking (buttresses). All horizontal bends, tees, caps and plugs shall be buttressed to provide thrust blocking in accordance with Section 4.3.13 and File Nos. 43, 44, 45 and 46 of the Standard Specifications.
- (c) Joint restrain systems.
 - [1] MEGALUG restrained joints. Joint restraint shall be provided by using MEGALUG restrained joints as manufactured by SIGMA, EBAA Iron Sales, Inc., of Eastland, Texas, or as provided for in Subsection **B(5)(c)[2]** and **[3]** below.
 - [2] Tyler Mechanical Joint Restraint. Joint restraint for mechanical joint pipe and fittings used with either ductile iron or PVC pipe may be provided using the Tyler Mechanical Joint Restraint (MJR) System on four-inch through twelve-inch diameter pipes.
 - [3] Restrained joint pipe. Joint restraint for push-on joint pipe may be provided by using U.S. Pipe TR FLEX restrained joint pipe, Clow Super-Lock joint pipe, Griffin Snap-Lok restrained joint pipe, American Flex-Ring or Lok-Ring restrained joint pipe or equal.
- (d) Restrained joint pipe sections.
 - [1] All water main pipe and fittings, within sections approved by the Village Engineer as "joint restraint" or "restrained," shall be restrained as specified in Subsection **B(5)(c)** above and as provided for below.
 - [2] All bends, tees and dead ends, unless otherwise approved by the Village Engineer, shall be provided with concrete buttresses in addition to joint restraint. Joint restraint is being provided as a safety factor in locations where the soil supporting the buttress could be removed or weakened by present or future utility excavations.
- (e) Restrained joint water services.
 - [1] All four-inch and larger water service piping shall be restrained from the main line tee to the shutoff valve, as specified in Subsection **B(5)(d)** above, with the end of the service piping braced with thrust blocking.
 - [2] Restrain one full length of main on both sides of the tee wherever the total length of restrained water service pipe is less than the minimum restrained lengths shown below:

Water Service Size	Minimum Restrained Length
(inches)	(feet)
8	60
10	70
12	80

- (f) Restrained hydrant leads. Hydrant leads shall be restrained in accordance with these special provisions.

- (6) Insulation. Water mains shall be insulated as approved by the Village Engineer and wherever the depth of cover is less than five feet. Insulation shall be in accordance with Chapter 4.17.0 of the Standard Specifications.
- (7) Operation of existing valves. All existing valves will be operated by or under the supervision of the Village Utilities Department.
- (8) Connections to existing mains. The contractor shall coordinate his work schedule with the Village when connecting intersecting streets to the new water main in order to minimize inconvenience and disruption caused by the temporary discontinuance of water service. The contractor shall notify the Village at least 24 hours prior to shutting off any water service. Water service to residences shall not be shut down for a period longer than eight hours nor after 4:30 p.m. or on weekends without approval of the Village. Residential water service may only be shut down between the hours of 8:30 a.m. and 4:30 p.m., except that residential water services may be shut down outside of these hours with the Village's permission. Water service to businesses shall not be shut down for a period longer than two hours unless satisfactory arrangements are made with the businesses affected. The contractor shall take whatever measures are necessary to return service at the end of each working day, including the use of temporary valves or plugs. The Village reserves the sole authority to prohibit shutdown of a water main if in the opinion of the Village that said shutdown would affect public health, safety and welfare or seriously damage a business that is reliant upon the delivery of municipal water.
- (9) Water main materials. Water main pipe material shall be ductile iron conforming to the following:
 - (a) Ductile iron pipe. Ductile iron pipe meeting the requirements of AWWA Standard C-151 (ANSI 21.51), cement mortar lined with internal and external bituminous coating and furnished with either push-on or mechanical joints with rubber gaskets. Do not furnish cable bonding or other methods for providing electrical conductivity. Ductile iron pipe shall be furnished for the following minimum thickness classes:
 - [1] Six-inch hydrant lead and eight-inch pipe shall be Class 53.
 - [2] Twelve-inch pipe shall be Class 52.
 - (b) Polyvinyl chloride (PVC) pipe.
 - [1] PVC pipe (four-inch through twelve-inch diameter) meeting the requirements of AWWA Standard C-900, Class 150, DR-18, with cast iron O.D. and integral elastomeric bell and spigot joints.
 - [a] Hydrant leads shall be ductile iron pipe.
 - [b] Do not furnish cable bonding or other methods of providing electrical conductivity on valves, hydrants and fittings located within sections of water main constructed with PVC pipe.
 - [2] PVC pipe (sixteen-inch diameter) meeting the requirements of AWWA Standard C-905, DR-18, Pressure Rating (PR) 235, with cast iron O.D. and integral elastomeric bell and spigot joints.
- (10) Fittings (used with ductile iron and PVC pipe)
 - (a) Fittings shall be ductile iron or cast iron, cement mortar lined with internal and external bituminous coating and meeting the requirements of AWWA Standard C-110 (ANSI 21.10). Fittings shall be supplied with mechanical joints with rubber gaskets.
 - [1] Ductile iron mechanical joint fittings meeting the requirements of AWWA Standard C-153 for compact fittings, three-inch through twenty-four-inch size, may be used in place of the fittings specified above.

- [2] All fittings shall be North American, Sigma or Star made only.
- (b) Bolts. All water main nuts and bolts, including connections to mains, fittings, valves and hydrants, shall be stainless steel.
- (11) Tracer wire.
- (a) Both ductile iron and PVC water main shall be provided with tracer wire, including stubs and nonmetallic services and dead-end mains.
- (b) Material. Tracer wire shall be 12 gauge multiple-stranded copper wire insulated for underground installation.
- (c) Installation. Place tracer wire at the springline of the main and tape to the pipe at five-foot intervals.
- (d) Electrical connections. Electrical connections to tracer wire shall be provided by extending the tracer wire through four eighteen-inch diameter by eighteen-inch long Schedule 40 PVC pipes with screw cap located directly in front of all hydrants. Place the top of the PVC pipe flush with the ground surface and leave one foot of slack in the wire for ease of future connections.
- (e) Testing. The contractor shall test all tracer wire for electrical continuity prior to acceptance of the main.
- (12) Valves and valve boxes
- (a) Resilient-seated gate valves. Resilient-seated gate valves shall meet the requirements of AWWA C-509.
- [1] Resilient-seated gate valves shall be furnished with mechanical joints with rubber gaskets, cast-iron body, stainless steel bonnet nuts and bolts, bronze mounted, resilient wedge, nonrising stem, O-ring stem seals, two-inch-square operating nut opening to the left (counterclockwise) and rated at 200 psi working pressure.
- [2] All six- and eight-inch valves shall be resilient-seated gate valves unless otherwise approved by the Village Engineer.
- [3] Resilient-seated gate valves shall be Waterous "Series 500" (American Flow Control), Clow F-6100 or Mueller A-2370-22.
- (13) Butterfly valves. Butterfly valves shall be AWWA rubber-seated butterfly valves meeting the requirements of AWWA C-504, Class 150B.
- (a) Butterfly valves shall be furnished with mechanical rubber gasket joints, cast-iron body for buried service, stainless steel operator nuts and bolts, underground operator with a two-inch-square operating nut opening to the left (counterclockwise) and rated at 150 psi working pressure.
- (b) All twelve-inch and larger valves shall be butterfly valves (except tapping valve and as otherwise approved by the Village Engineer).
- (c) Butterfly valves shall be Pratt, Kennedy, Dresser, Clow or Mueller "Linesal III" B-3211-20L.
- (14) Valve boxes.
- (a) Valve boxes shall be three-piece cast-iron valve boxes consisting of base, screw-type center (shaft diameter of 5 1/4 inches) and top section with cover marked "WATER." Extension sections shall be furnished as required. Valve boxes shall be furnished for the depth of trench shown as approved by

the Village Engineer with the cover placed at the existing grade.

- (b) Valve boxes shall be North American, Sigma or Star made only. Acceptable manufacturers include: Tyler 6860 series, Bingham and Taylor 4906, Bibby-Ste. Croix, Sigma and Star.
 - (c) Valve box adapters. Valve boxes for both gate and butterfly valves shall be installed by mounting on cast-iron valve box adapters as manufactured by Adaptor, Inc., of Oak Creek, Wisconsin, or equal.
 - (d) Valve stem extensions. All valves installed at greater than eight feet of depth shall be provided with valve stem extensions to bring the operating nut up to normal depth (equivalent to a valve at eight feet of depth). The extension shall be secured to the operating nut with at least two set screws drilled into the nut. Provide a centering ring at the top of the extension.
 - (e) Valve box adjustment. During the year following the construction of utilities, the contractor shall adjust valve boxes which are located within asphalt concrete pavement to finished pavement (surface) grade.
 - (f) Tapping valves and sleeves.
 - [1] Tapping valves shall be similar to the AWWA gate valves specified in these special provisions except for the end connection (usually flanged) to the tapping sleeve and oversized seat rings to permit entry of the tapping machine cutters.
 - [2] Tapping sleeves shall be supplied by the manufacturer of the tapping valves.
 - (g) Valve markers. The contractor shall place steel markers at all valve locations within roadway areas. The markers shall be placed parallel to the valve three feet behind the proposed curb/gutter. Markers shall extend at least two feet below finished grade and extend four feet above finished grade. Markers shall be painted orange.
- (15) Hydrants.
- (a) Standard hydrant. Hydrants shall be Mueller Centurion No. A-423, conforming to the following specifications:
 - [1] Hydrants shall be compression type, with bottom valve of 5 1/4 inches and six-inch mechanical joint inlet connection O-ring packing, safety flange construction, meeting the requirements of AWWA Standard C502 and meeting specifications for 300 psi test pressure and 150 psi working pressure. The bottom or base flange and any other buried flanges shall be fastened using stainless steel nuts and bolts.
 - [2] Hydrants shall have two hose nozzles of 2 1/2 inches and one pumper nozzle of 4 1/2 inches with Kenosha Standard fire hose coupling screw threads and nut-type nozzle caps with gaskets and chains.
 - [3] Hydrants shall have one-and-one-fourth-inch pentagon operating nut opening to the left (counterclockwise).
 - [4] Hydrant bonnet and nozzles shall be painted red with reflective silver nozzle caps and operating nut. Paint color and manufacturer shall be per the Pleasant Prairie Fire & Rescue Department requirements.
 - [5] Hydrant markers meeting Village Utility requirements shall be provided for all hydrants on existing Village roads. Hydrants within new subdivisions do not require hydrant markers.
 - (b) Barrel extensions. Hydrants shall be furnished for the depth of bury as approved by the Village

Engineer. Hydrants requiring greater than 7 1/2 feet of bury shall be furnished as standard seven-and-one-half-foot hydrants with extensions as required. Hydrant extensions shall be compatible with hydrant barrel and stem sections and shall be installed at the top of the barrel section. The distance from the ground line to the center line of the lowest nozzle shall be from 18 to 23 inches. Secure extension flanges using stainless steel nuts and bolts.

- (c) Valves and valve boxes. Hydrant valves and valve boxes shall conform to the requirements for gate valves and valve boxes of these special provisions.
 - (d) Hydrant leads. Hydrant leads shall be six inches, Class 53, ductile iron pipe. Restrain from main to valve and valve to hydrant.
 - (e) Hydrant and auxiliary valve locations.
 - [1] Place hydrants five feet behind the back of curb (urban roads) or seven feet from the right-of-way line (rural roads with ditches), unless shown otherwise approved by the Village Engineer.
 - [2] Place hydrant valves as shown in Appendix A, Details W-1 and W-2.
 - (f) Temporary hydrant cover. Temporarily cover new hydrants during construction with polyethylene bags, securely fastened in place, until after the water main has been tested and placed in service.
- (16) Water services.
- (a) Installation. Water service piping shall be installed in accordance with Chapter 5.5.0 of the Standard Specifications and the following provisions:
 - [1] Do not connect services to the water main until after the main has been tested and a safe water sample obtained.
 - [2] Insert the corporation stop into the water main while the main is in service and under pressure.
 - [3] Do not backfill the water service trench until after the service has been checked for leaks and the service piping thoroughly flushed.
 - (b) Cover. Install water service piping with 6 1/2 feet minimum cover except provide five feet minimum cover at ditches.
 - (c) Tapping PVC water main.
 - [1] PVC water main may be direct tapped, without the use of saddles, for only three-fourths-inch and one-inch services using corporation stops with AWWA tapered threads conforming to AWWA C-800.
 - [2] Tap PVC pipe using a shell cutter with internal teeth. Do not use a standard drill and tap for direct tapping under pressure.
 - [3] One-and-one-half inch and two-inch services shall be tapped using double-strap service clamps.
 - [4] Place Teflon tape on corporation stop threads prior to installation. Corporation stops shall be torqued to a maximum of 35 feet per pound or as recommended by the manufacturer.
 - (d) Water service piping. If compression brass fittings are used, they shall be electrically conductive.
 - [1] Water service materials. Water services shall include furnishing and installing corporation stop, service clamps if required, curb valve, valve box, foot piece and stationary rod as specified herein.

- [2] Corporation stops (one-inch size) shall be Mueller H-15000, McDonald 4701 or Ford F600 with AWWA cc threads. Corporation stops (one-and-one-half-inch and two-inch size) shall be Mueller H-15013, McDonald 4701 B or Ford FB 600 with cc threads. All one-and-one-half-inch and two-inch stops shall be installed using double-strap service clamps. Service clamps shall have a ductile iron body and stainless steel straps or shall be 100% stainless steel.
 - [3] Curb valves (one-inch size) shall be Mueller H-1502-2 Oriseal III curb valve, Ford B22-444 ball valve curb stop or McDonald 6100 ball valve curb stop. Curb valves (one-and-one-half-inch and two-inch size) shall be Mueller H-15204 Mark II Oriseal valves, Ford B44-666 (1 1/2 inches) and B44-777 (two inches) ball valve curb stop or McDonald 6100-T ball valve curb stop.
 - [4] Curb boxes (one-inch size) shall be Mueller H-10385 arch pattern curb box, Ford arch base curb box with Type PS lid (one inch upper section) or McDonald 5607 arch pattern curb box with 5607-L lid. Curb boxes (one-and-one-half-inch and two-inch size) shall be Mueller H-10336 arch pattern curb box, Ford arch base curb box with Type PS lid (one-inch upper section) or McDonald 5603 arch pattern curb box with 5607-L lid. Curb boxes shall be furnished with foot piece and stationary rod for 6 1/2 feet of bury.
 - [5] One-inch brass fittings may be flare or electrically conductive compression type. One inch, one-and-one-half-inch and two-inch brass fittings shall be electrically conductive compression type.
 - (e) Curb valve location. Curb valves shall be placed one foot from the right-of-way line with the water service piping extending to the street right-of-way line and the end of the tubing pinched shut. Curb boxes shall be set to finished yard grade.
- (17) Hydrostatic tests.
- (a) General requirements.
 - [1] All tests shall be performed as specified in Chapter 4.15.0 of the Standard Specifications, except that the water main shall pass three consecutive one-hour leakage tests. The Village or its representative shall be present at all times during testing.
 - [2] The contractor shall furnish all labor, equipment and material to complete all testing.
 - [3] Temporary air release.
 - [a] Trapped air shall be bled off (by tapping the main) when filling the main with water and/or removed by flushing through hydrants.
 - [b] Temporary air release may be provided by tapping one-inch corporation stops into the high points of pipe or into the plug on dead-end lines. Provide a drain to prevent the air release from freezing. After flushing and testing is completed, the temporary taps shall be abandoned in place.
 - [c] The contractor shall provide flushing hydrants if required to flush dead-end lines.
 - (b) Test sections.
 - [1] The contractor has the option to test the entire new water main as one continuous test section or in segments per his discretion.
 - [2] Connections to intersecting streets need not be tested; however, the contractor shall sterilize and flush all connecting mains. The intersecting main(s) shall be subjected to line pressure and any visible defects repaired prior to backfilling.

(18) Disinfection.

(a) General requirements.

- [1] The water main shall be disinfected in accordance with Section 4.3.12 and Chapter 4.16.0 of the Standard Specifications.
- [2] The contractor shall take all necessary samples of the water and provide any equipment necessary to take these samples. The contractor, accompanied by the Village or its representative, shall deliver the samples to an approved laboratory for testing.

(b) Safe samples.

- [1] At least one safe sample must be obtained from each of the segments hydrostatically tested. Additional samples may also be required from:
 - [a] Representative locations from each of the test sections to establish that all of the mains are free of contamination.
 - [b] Dead-end lines.
 - [c] Connections to existing mains.
 - [2] Water main segment(s) shall not be placed in service until after safe water sample(s) has (have) been obtained.
- (c) Procedures for disinfecting connections to existing mains. The following procedures apply when existing mains are wholly or partially dewatered. Existing mains that are isolated by an existing valve require no disinfection. After the appropriate procedures have been completed, the existing main may be returned to service prior to completion of bacteriological testing to minimize disruption to service.
- [1] Apply liberal quantities of hypochlorite to wet trenches at or near the connection to the existing main. Use hypochlorite tablets if water is being pumped from the trench to prolong protection as hypochlorite is slowly released as the tablets dissolve.
 - [2] Swab the interior of all pipe and fittings located between the connection to the existing main and the closest new valve (including connection pipe and fittings) with a one-percent hypochlorite solution.
 - [3] Flush the connection to the existing main, from both directions toward the connection if valve and locations permit, as soon as the connection has been completed and the nearest new valve installed and secured. Flush through the new main until all discolored water is eliminated.
 - [4] Should the water main connection be severely contaminated by dirty water or other means, the existing main and connection shall be disinfected by slug chlorination in accordance with the procedure specified below:
 - [a] Continue to isolate the section of contaminated main.
 - [b] Shut off all service connections.
 - [c] Place hypochlorite tablets in the connection to the new main.
 - [d] Flush the main to remove particulates.
 - [e] Slowly dose the contaminated main with a 300 mg/l free chlorine concentration for a period of at least 15 minutes.

- [f] Flush the main until the water is free of noticeable chlorine odor.
- [g] Open service connections and return the main to service.
- [5] Take bacteriological samples to provide a record for determining the effectiveness of the procedure. Samples may be required from both sides of the connection.
- [6] If unsatisfactory tests are recorded, the Village will determine the necessary corrective action. Take daily samples until two consecutive safe samples have been recorded.
- (d) Rechlorination. Should any test prove unsatisfactory, the water main shall be sterilized by the contractor by such methods as he deems necessary and samples taken until acceptable results are obtained.
- (e) Flushing.
 - [1] All water mains, including dead-end mains and all hydrants, and all water services shall be flushed. The Pleasant Prairie Fire & Rescue Department must be notified prior to flushing to arrange inspection. Water services shall be flushed, with a minimum amount of water equivalent to the volume of the service pipe, until the water is visibly clean.
 - [a] The contractor shall use suitable methods for disposing of flushing water to prevent surface erosion.
 - [b] The contractor shall provide temporary flushing hydrants as required.
 - [2] Water furnished by Village. Water for testing and flushing will be furnished by the Village at the contractor's expense. The contractor shall notify the Village prior to commencing flushing and shall coordinate his operations with the Village in order not to deplete the water supply. Water usage may be restricted to periods of low demand (nighttime or weekend hours) if water usage is high during normal working hours. All flushing of new mains and services shall be done under the direct supervision of the Village or its representative.
 - [3] Metered water.
 - [a] The contractor shall meter all water used for flushing purposes. A complete record of all water used for flushing, including amounts and dates, shall be kept by the contractor and provided to the Village. The Village will furnish all water required for flushing free of charge.
 - [b] The contractor shall use a flushing meter provided by the Village. The meter shall be returned, in good condition, immediately after completing flushing operations. The contractor shall be responsible for any damage to flushing meters. (Contact Utility Superintendent.)
 - (f) Swabbing water main. All piping installed outside of water main test segments shall be disinfected by swabbing with a one-percent hypochlorite solution and thoroughly flushed. The entire interior surfaces of all pipes and fittings shall be thoroughly swabbed. The diameter of swabs used in pipes shall match the interior pipe diameter and provide resistance when swabbing the pipes. Pipes shall be swabbed with a pumping motion with all surfaces wiped several times. The contractor shall use extreme care to ensure the cleanliness of all water main materials used.
- C. Storm sewer construction. In addition to the specifications in this chapter, compliance with any applicable provisions of Chapter 298, entitled "Stormwater Management and Stormwater Drainage System Facilities," shall apply. **[Amended 5-18-2009 by Ord. No. 09-31]**
 - (1) Bedding and cover material. Storm sewer bedding and cover material shall conform to the appropriate sections of the Standard Specifications, as noted below. Unless otherwise approved by the Village Engineer, Class "C" bedding shall be used.

- (a) Class "C" bedding: File No. 3 and Section 3.2.6(a).
 - (b) Class "B" bedding: File No. 4 and Section 3.2.6(b).
- (2) Field tile connections.
- (a) All field tile encountered during construction shall be connected to the new storm sewer.
 - (b) Tile lines crossed by the trench shall be replaced with polyvinyl chloride (PVC) sewer pipe meeting the requirements of ASTM D-3034, SDR-35, with rubber gasket joints. The PVC pipe shall extend for a minimum distance of two feet outside of the edge of the undisturbed trench wall. The tile to PVC pipe connection shall be made with compatible fittings, adapters or encased in concrete. Connections to storm sewers shall be cored. The size of the PVC pipe shall be equal to or greater than the field tile it is connected to.
 - (c) Damaged field tile shall be repaired the same day as the damage occurs so that the flow of water will not be unreasonably restricted.
 - (d) Damaged tile shall be connected to new storm sewers wherever possible.
- (3) Storm sewer materials. Storm sewer pipe material shall be reinforced concrete, nonreinforced concrete or reinforced concrete elliptical pipe in accordance with the following:
- (a) Reinforced concrete sewer pipe (RCP) shall meet the requirements of ASTM C-76 with mortar or rubber gasket joints conforming to ASTM C-443.
 - (b) Nonreinforced concrete sewer pipe (NRCP) shall meet the requirements of ASTM C-14 with mortar or rubber gasket joints conforming to ASTM C-443.
 - (c) Reinforced concrete horizontal elliptical sewer pipe RCHEP shall meet the requirements of ASTM C-507 with mortar or rubber gasket joints conforming to ASTM C-443.
- (4) Storm sewer manholes.
- (a) Standard manhole.
- [1] Storm sewer manholes shall be constructed in accordance with Chapter 3.5.0 and File Nos. 12, 12a, 13 and 15 of the Standard Specifications and these special provisions.
- [2] Manholes shall be precast forty-eight-inch, sixty-inch or seventy-two-inch inside diameter, as approved by the Village Engineer, with eccentric cones. Unless otherwise approved by the Village Engineer, standard manholes shall be forty-eight-inch inside diameter.
- [a] Flat top slabs with offset openings may be used for shallow manholes where there is not sufficient depth to install cones.
 - [b] A minimum of three inches to a maximum of 12 inches of adjusting rings shall be furnished for each manhole.
- [3] Manhole steps.
- [a] Manhole steps shall be OSHA approved, three-eighths-inch minimum diameter grade 60 steel reinforcing rod with molded plastic covering.
 - [b] Manholes less than four feet deep do not require steps.

- [4] Manhole frames and covers.
- [a] Manhole frames and covers shall be Neenah R-1580 (old R-1080) with Type "B" lids, non-rocking, or equal.
- [b] Beehive grate manhole covers shall be Neenah R-2560-EI or equal.
- [c] Manhole frames shall be centered on the top of the cone section.
- (b) Manhole joints.
 - [1] Joints for precast manhole riser sections shall be made with non-shrink grout, rubber O-ring gaskets, a continuous ring of butyl rubber sealant (EZ-Stik or Kent Seal in rope form) or equal. The butyl sealant shall be one-inch diameter equivalent or as recommended by the manhole manufacturer.
 - [2] Adjusting rings and manhole frames shall be set with non-shrink grout or butyl rubber sealant troweled into a one-fourth-inch thick layer over the entire surface areas of the top of cone and all adjusting rings. The butyl rubber sealant shall be EZ-Stik or Kent Seal butyl base sealant in trowelable grade or equal.
 - [3] The interior and exterior dimensions of the top of the cone section and adjusting rings shall be equal and these surfaces shall be constructed flush with each other.
- (c) Manhole seals. All storm manholes located within proposed paved areas shall be provided with an internal manhole chimney seal as manufactured by Cretex Specialty Products, Waukesha, Wisconsin. Chimney seal shall extend from frame to cone section covering all adjusting rings.
- (5) Catch basins; standard catch basin. Catch basins shall be constructed in accordance with the standard catch basin details as shown in Appendix A, Details ST-2, ST-3 and ST-4.
 - (a) Catch basins shall be precast. Concrete block may be used due to pipe sizing constraints or depth constraints. All catch basins shall have twelve-inch sumps.
 - (b) Catch basins greater than four feet in depth, measured from the inlet flow line to the bottom of the sump, shall be provided with steps in accordance with Section 3.5.4.4(g) of the Standard Specifications.
 - (c) Catch basins shall initially be constructed to the base course grade. Prior to installing the final course of asphalt roadway, catch basins shall be adjusted to match the final grade. Note: Install concrete collar around catch basin at the time of the final catch basin adjustment.
- (6) Televising storm sewer. Following base course installation and prior to Village acceptance of the storm sewer, the Village will televise all storm piping at the developer's/contractor's cost. Any defects identified by the televising must be repaired prior to placing the binder course of asphalt.
- (7) Manhole markers. The contractor shall place steel manhole markers at all manhole locations. The markers shall be placed parallel to the manholes three feet behind the proposed curb/gutter. Markers shall extend at least two feet below finished grade and extend four feet above finished grade. Markers shall be painted orange.
- (8) Sump pump laterals. The contractor shall construct sump pump laterals at the locations as approved by the Village Engineer. Sump pump laterals shall be 42 inches deep wherever possible.
 - (a) Sump pump laterals shall be constructed adjacent to and left of the water service wherever possible.
 - (b) Sump pump laterals shall be four-inch PVC meeting the requirements of ASTM D3034, SDR-35,

with integral bell-type flexible elastomeric joints meeting ASTM D-3212.

- (c) Sump pump laterals shall extend to the right-of-way line and shall be constructed without vertical breaks or bends.
 - (d) Sump pump laterals shall be connected to the storm sewer by a precast tee or cored rubber boot.
 - (e) Sump pump laterals shall be marked with a wooden stake to facilitate future location.
 - (9) Sump pump tiles. The contractor shall construct sump pump tile lines in locations as approved by the Village Engineer.
 - (a) Sump pump tile lines shall be six inches (minimum) and shall be constructed with PVC pipe meeting the requirements of ASTM D-2241, SDR 26 with flexible elastomeric joints meeting ASTM D-3212.
 - (b) Tile cleanouts shall be provided at the locations as approved by the Village Engineer.
- D. Roadway construction.
- (1) Crushed aggregate base course.
 - (a) Crushed aggregate base course shall be constructed in accordance with Section 304 of the State Specifications and the typical section(s) as approved by the Village Engineer. The contractor shall furnish and place base course material as required to construct the base course to grade. Only crushed limestone may be used for base course.
 - (b) Base course material shall have a maximum moisture content of 7%.
 - (2) Gradation.
 - (a) Gradation for base course material shall be Gradation No. 2 as specified in Section 305.2.2 of the State Specifications.
 - (b) The top four inches of shoulder material or whatever thickness is required to bring shoulders up to match the finished pavement grade shall be Gradation No. 3 (traffic bond) and the remainder shall be either Gradation No. 2 or No. 3 of Section 305.2.2 of the State Specifications.
 - (c) Base course material shall conform to the following gradations, as specified in Section 305.2.2:
 - [1] Lowest layer(s): Gradation No. 2 (T.B.).
 - [2] Top layer (four inches): Gradation No. 3 (T.B.).
 - (3) Standard compaction. Compaction of base course shall comply with the requirements of Section 305.3.1 of the State Specifications, as modified below:
 - (a) Crushed aggregate base course shall be placed and compacted in four-inch maximum layers.
 - (b) Moisture shall be added by tank wagon as required for maximum compaction.
 - (c) Standard compaction shall consist of compacting each layer of the base course to the degree that no further appreciable consolidation is evidenced under the action of the compaction equipment.
 - (d) Compaction shall be performed by specialized compaction equipment.

- (4) Crushed aggregate base course testing and approval.
 - (a) The contractor, at his own expense, shall obtain testing and approval of the compacted, in-place, crushed aggregate base course prior to the placement of the curb and gutter. Tests shall be in conformance with the State Specifications and as herein described. Testing shall be performed by an approved testing laboratory of the contractor's choice. Copies of test results shall be delivered to the Village.
 - (b) The crushed aggregate base course shall be compacted before the concrete base course is placed. A minimum of two compaction tests per day will be required. Compaction shall be 95% of maximum density determined by the Modified Method of Test for the Moisture-Density Relation of Soils, AASHTO Designation T180 Method C. The density shall be determined with the test for density of soil-in-place by the Sandcone Method, AASHTO Designation T191, or equal.
 - (c) Dust control.
 - [1] The contractor shall minimize the dispersion of dust from the base course, including shoulders, during construction and maintenance operations until after placement of the surface course.
 - [2] Dust control shall be accomplished by the application of water or other approved dust-control material as required by the Village.
- (5) Asphaltic concrete pavement.
 - (a) Asphaltic concrete pavement shall comply with Section 450 and Section 411 of the State Specifications as modified below. The pavement mix shall be Type E-0.3 for roadways unless otherwise approved by the Village Engineer. The pavement mix shall be comprised of virgin and/or recycled aggregate and asphaltic materials unless otherwise specified.
 - [1] Aggregate. The aggregate in the pavement mix shall conform to the requirements of the State Specifications. Aggregate gradation shall conform to 19.0 mm nominal size aggregate for lower layers, 12.5 mm nominal size aggregate for the upper layer and either 12.5 mm or 9.5 mm nominal size aggregate for driveways and parking areas in accordance with Section 460.2.2.3 of the State Specifications.
 - [2] Asphalt cement. Asphalt cement, Type AC, shall conform to Section 401.3.4 of the State Specifications and shall be performance grade PG 64-28 for lower layer and PG 58-28 for upper layer. Asphalt cement content shall be in accordance with state-approved mixes.
 - [3] Pavement mix.
 - [a] Prior to beginning construction, the contractor shall provide the Village with copies of current state approvals for the pit, mixing plant and design mixes for materials proposed to be used on this project.
 - [b] Asphaltic mixture shall be produced and incorporated in the work on the basis of a job-mix formula. The contractor shall be responsible for the asphaltic job-mix design report, conforming to Section 465.2 of the State Specifications, and shall submit a signed copy of the report to the Village for review at least two weeks prior to plant startup for paving production.
 - [c] Pavement mixtures shall be in accordance with Section 460.2.7 of the State Specifications.
 - (b) Pavement compaction.
 - [1] All pavements shall be built in accordance with the maximum density method per Section 460.3.3 of the State Specifications. The maximum specific gravity value shall be indicated on the asphaltic job-

mix design report.

[2] Pavements shall be compacted to a density not less than that shown in the table below:

		Minimum Required Density		
		Percent of Target Maximum Density		
Location	Layer	Mixture Type		
		E-0.3, E-1 and E-3	E-10, E-30 and E-30x	SMA
Traffic lanes ¹	Lower	91.5 ²	92.0 ²	94.0
	Upper	91.5	92.0	94.0
Shoulders and appurtenances	Lower	89.5	89.5	91.0 ³
	Upper	90.5	90.5	91.0 ³

NOTES:

1 Includes parking lanes.

2 Minimum reduced by 2% for less than 3,000,000 ESALs and 1% for greater than 3,000,000 ESALs, when the first lift of lower layer constructed on crushed aggregate or recycled base courses.

3 Minimum density will be 94.0 when the shoulders are paved integrally with the mainline pavement.

[3] Incentive for Asphaltic Concrete Pavement Density, Section 104.10.4.2 of the State Specifications, shall not apply to the specifications.

(c) Recycled asphaltic concrete pavement. The contractor may use recycled asphaltic concrete pavement. The recycled pavement shall consist of a mix of salvaged asphaltic pavement materials, presently stockpiled for use by the contractor, and the required amounts of aggregate and asphalt cement. The recycled pavement shall be in accordance with a state-approved mix calculated for the stockpiled material and comply with Section 407 of the State Specifications. The contractor shall submit a copy of the job-mix formula to the Village.

(d) Pavement passes and thickness.

[1] Asphaltic surface course shall be placed in four passes of equal width or as directed by the Village.

[2] Place one longitudinal joint at the center line of the pavement.

(e) Tack coat.

[1] A tack coat shall be applied to the binder course prior to placing the surface course. Apply the tack coat the same day that the surface course is placed.

- [2] Tack coat material shall be an asphalt emulsion, conforming to Section 455 of the State Specifications, diluted with an equal amount of water and applied at a rate of 0.05 to 0.15 gallon per square yard or as directed by the Village.
- (f) Temperature of asphalt placed. All asphalt shall be placed at a minimum temperature of 250° F.
- (g) Construction equipment.
 - [1] The paver shall have sufficient power and traction to operate on grades. Screed extensions with static extensions shall not exceed 12 inches. Automatic control systems shall be used.
 - [2] Vibratory rollers shall conform to Section 450.3.1.5 of the State Specifications.
- (h) Construction requirements.
 - [1] Prior to placing asphaltic base or surface courses, all required corrections of filling potholes, sags, and depressions shall be made.
 - [2] All existing structures, manholes and valve boxes within pavement areas shall be ramped as part of the binder course construction. Ramps shall be a minimum of four feet in width in all directions from the structure.
 - [3] All edges of existing abutting asphaltic pavements shall be saw cut immediately prior to paving to form a straight, firm joint.
 - [4] All rolling shall be performed during daylight hours.
 - [5] Prior to surface paving, all ramps around existing structures shall be milled to match adjacent binder thickness.
- (6) Concrete roadways. **[Amended 9-16-2013 by Ord. No. 13-50]**
 - (a) Standard section. Standard pavement sections shall be in accordance with typical sections shown in Appendix A and Section 415 of the State Specifications, as amended herein.
 - (b) Base course.
 - [1] A crushed aggregate base course, nine inches thick after compaction, shall be placed under the concrete pavement. The material shall conform to Section 305 of the State Specifications and shall be Gradation No. 2.
 - [2] Base course material may be placed and compacted in one lift.
 - (c) Construction joints.
 - [1] Longitudinal joints.
 - [a] Longitudinal joints shall be constructed along the center line of the pavement and along the edges of traffic lanes and at the locations approved by the Village Engineer in accordance with State Specifications Section 415.3.9.1 and Wisconsin Department of Transportation (WDOT) Standard Detail Drawing 13 C 1-10.
 - [b] Longitudinal joints may consist of construction joints where new work meets existing pavement or work previously completed or shall be constructed by sawing not later than two days after the concrete has been placed.

- [2] Transverse joints.
- [a] Transverse joints shall be constructed at normal twenty-foot spacings and at the locations as approved by the Village Engineer in accordance with Section 415.3.9.2 of the State Specifications and WDOT Standard Detail Drawing 13 C 4-12.
- [b] Transverse joints shall be located to match alternate joints in the adjacent curb and gutter.
- [c] Contraction joints shall be saw cut by approximately 12:00 midnight of the same day the concrete was poured when normal or rapid concrete setting conditions prevail in accordance with Section 415.3.9.1 of the State Specifications.
- (d) Expansion joints.
- [1] Expansion joints shall be placed at the locations as approved by the Village Engineer.
- [2] Expansion joints shall be doweled per WDOT Standard Detail Drawing 13-B 2-4.
- [3] Filler material shall be 3/4 inch wide and shall conform to the State Specifications, Section 415.2.3.
- (e) Pavement ties.
- [1] All longitudinal joints shall be constructed using tie bars conforming to Section 415.2.2 of the State Specifications and WDOT Standard Detail Drawing 13 C 1-10. Place tie bars at a twenty-four-inch spacing on the pavement center line and at a thirty-six-inch spacing on edges of traffic lanes and at curb and gutter.
- [2] Coating. The coating material shall be a powdered epoxy resin manufactured by Minnesota Mining and Manufacturing (Scotch Kote 213, 214), by Armstrong Products Company (Epoxiplate R350 or R352), by the Dexter Corporation (DK 23-0679 Green) or by the Polymer Corporation (Corvel ECA 1440 Green 3169). The coating applicator shall be approved by the Village.
- [3] Repairs to epoxy coating.
- [a] Damages to the coating caused during shipment of epoxy bars or by installation procedures or both need not be repaired in cases where the damaged area is 1/4 by 1/4 inch or smaller and the sum of all damaged area in each one-foot length of bar does not exceed 2% of the bar surface area. All damaged areas larger than 1/4 inch square shall be repaired and all bars with total damage greater than 2% of bar surface area shall be rejected and removed. The total bar surface area covered by patching material shall not exceed 5%.
- [b] All epoxy coated tie bars which require straightening to tie adjacent concrete together shall be field coated with similar epoxy material at the bend location after straightening.
- (f) Surface finish. The final surface finish shall conform to Section 415.3.11.6 of the State Specifications for final surface finish.
- (g) Curing. Concrete pavement shall be cured by the Impervious Coating Method in accordance with Section 415.2.4 of the State Specifications.
- (h) Opening to traffic. The pavement shall be opened to traffic in accordance with Section 415.3.17. of the State Specifications. In general, traffic shall not be allowed for a period of at least seven days when temperatures are generally 70° F. or higher during the period or after test cylinders show a compressive strength of 3,000 psi or more.
- (7) Concrete.

- (a) Grade of concrete. All concrete shall be Grade A-FA, air-entrained, as specified in Section 501 of the State Specifications. The concrete shall be six-bag mix with a minimum twenty-eight-day compressive strength of 3,500 psi. All concrete shall be ready-mixed.
- (b) Test specimens.
 - [1] The contractor shall take two representative concrete samples in accordance with ASTM C-31 for seven-day and twenty-eight-day compression testing in accordance with ASTM C-39 from approximately every 300 feet of roadway, 500 feet of curb and gutter, and 400 feet of sidewalk or as directed by the Village.
 - [2] Test cylinders shall be six inches in diameter by 12 inches in height.
 - [3] The contractor shall field cure, care for and ship the test cylinders to the testing laboratory.
- (c) Surface finish. All concrete shall receive a brush finish.
- (d) Curing. Curb and gutter shall be cured in accordance with the requirements of Section 415.5.10 of the State Specifications, except that all concrete shall be cured by the Impervious Coating Method as specified in Section 415.2.4.
- (8) Concrete curb and gutter.
 - (a) Standard section. Concrete curb and gutter shall conform to the thirty-inch typical section and shall be constructed in accordance with Section 601 of the State Specifications. Also, see Appendix A, Details R-7, R-8 and R-9.
 - [1] Concrete masonry shall conform to the appropriate subsection of these special provisions.
 - [2] Where required, vertical curb shall be constructed in accordance with the standard detail as shown in Appendix A, Details R-8 and R-9.
 - [3] All other curbs shall be mountable curb and shall be constructed in accordance with the standard detail as shown in Appendix A, Detail R-7.
 - (b) Base course. A crushed aggregate base course matching the adjacent pavement section shall be placed under the curb and gutter. The material shall conform to Section 305.2.2 of the State Specifications and shall be Gradation No. 2.
 - (c) Contraction joints. Contraction joints shall be spaced at intervals of 10 feet. If the contractor elects to saw cut the joints, the joints shall be saw cut the same day when normal or rapid concrete setting conditions prevail. If conditions exist that retard the setting of the concrete, the saw cutting of the joints shall be delayed until the concrete has set sufficiently to preclude raveling during the sawing. If shrinkage cracks develop prior to saw cutting, the cracked sections of concrete shall be removed to such an extent that the normal ten-foot joint spacing will still exist. Contraction joints constructed by saw cutting shall be a minimum of two inches in depth.
 - (d) Expansion joints. Expansion joints shall be placed as outlined in Section 601.3.6 of the State Specifications. Place expansion joints at a maximum spacing of 300 feet on tangents and curves, at all PC and PT of horizontal curves and three feet from all drainage structures. Use three-fourths-inch expansion fiber material.
 - (e) Opening to traffic. Traffic shall not be allowed on curb and gutter for a period of at least seven days after placing or until the concrete has attained a compressive strength of at least 2,500 pounds per square inch.

- (f) Tapered curb ends. A tapered curb section shall be constructed at the ends of the curb and gutter as approved by the Village Engineer. The tapered sections shall be five feet long and end with a two-inch-high curb. A contraction joint shall be placed at the end of the tapered section.
 - (g) As part of the initial curb/gutter construction, the gutter shall stop three feet from catch basins to match the interim grade of the catch basins. Prior to installing the surface course of asphalt, remove asphalt around catch basin and install curb and gutter to final grade.
 - (h) Concrete curb/gutter shall be backfilled with compacted excavated material or granular material except for the top six inches which shall be topsoiled and hydro-seeded. All backfilling shall be completed within two weeks of curb/gutter installation. Roadways shall not be open to any traffic until curb/gutter backfilling has been completed. The contractor shall immediately restore any backfill that settles.
 - (i) Replacing damaged curb/gutter sections prior to Village acceptance.
- [1] Prior to installation of the surface course, the Village will inspect all concrete curb/gutter and identify those areas needing to be replaced.
 - [a] Damaged curb/gutter sections shall be removed to the nearest joint.
 - [b] A minimum of six inches of asphalt binder adjacent to the damaged curb/gutter shall be saw cut, removed and replaced.
 - [c] Crushed stone base course shall be compacted prior to installing new curb/gutter. Additional base course shall be added as necessary.
 - [d] A minimum of two inches to 18 inches long No. 4 bar shall be used at each end of connection to existing concrete at all repair locations.
 - [2] The Village shall be notified at least 72 hours prior to working on replacing damaged curb/gutter to arrange inspection.
- E. Other required specifications.
- (1) Backfilling utility trenches.
 - (a) Excavated material, in accordance with Section 6.43.5 of the Standard Specifications, may be used to backfill trenches, except as provided for in Subsection **E(2)** below.
 - (b) If excavated material is unsuitable for backfilling, trenches shall be backfilled with granular material when so ordered by the Village.
 - (2) The following categories of trenches, in sections as approved by the Village Engineer as excavated material backfill, shall be backfilled with granular material:
 - (a) Manholes and valve boxes located within improved surfaces.
 - (b) Trenches within 15 feet of manholes (measured from the center of manholes) located within existing or proposed roadways or other paved or graveled surfaces shall be backfilled with granular material.
 - (c) Trenches within 10 feet of valve boxes located within existing or proposed roadways or other paved or graveled surfaces shall be backfilled with granular material.
 - (3) Granular backfill. Granular backfill, in accordance with Table 37 of Section 6.43.4 of the Standard Specifications, shall be used to backfill trenches, except as provided for below.

- (a) If excavated material is suitable for use as granular backfill, trenches shall be backfilled with suitable excavated granular material so ordered by the Village.
- (b) Granular backfill placed within state highway rights-of-way shall conform to Section 209 of the State Specifications.
- (4) Consolidation.
 - (a) Amend Section 2.6.14 of the Standard Specifications to read in part:
 - [1] "All granular and excavated material backfill shall be consolidated through mechanical compaction by means of a backhoe boom-mounted compactor. Either a vibratory compactor or compaction wheel is acceptable if it can meet the densities specified below. The backhoe used for compaction shall be equal in reach to the backhoe used for excavating the trench; i.e., capable of reaching the bottom of the trench with no additional shelf excavation. Backfill shall be compacted in eighteen-inch maximum lifts, before compaction, unless noted otherwise below, except that the first lift shall be two feet in depth. The contractor shall take all precautions necessary to protect utilities from being damaged during backfilling and compaction operations."
 - [2] Granular backfill shall be compacted to a minimum of 95% Standard Proctor Density.
 - [3] Excavated material backfill shall be compacted to a density equal to 100% of the density of the undisturbed material in adjacent trench walls.
 - [4] Topsoil shall not be compacted.
 - [5] Backfill placed within state highway rights-of-way shall be compacted in twelve-inch maximum lifts, except that the first lift shall be two feet in depth.
 - (b) If there is a question as to whether or not the specified density has been achieved, a soil testing firm selected by the Village will be brought in to determine the backfill density. The cost of this testing will be paid for by the contractor.
 - (c) If the contractor desires to use alternate compaction equipment or backfill depths greater than those specified, documentation must be submitted to the Village substantiating the adequacy of the proposed compaction method. Alternate compaction methods shall not be used unless approved by the Village. The Village may require density testing by an approved soil testing firm to field verify backfill densities.
- (5) Surface replacement and site restoration.
 - (a) General replacement.
 - [1] The provisions of Sections 2.6.11 and 2.7.2 of the Standard Specifications are modified as follows:
 - [a] The contractor shall replace or restore, unless specified otherwise, any sidewalk, driveway, curb, gutter, shoulder, pavement, culvert, lawn, ditch, fence, sign, mailbox, bushes/trees, or other property damaged by him. Minimum requirements for restoration and replacement shall be in accordance with the applicable subsections of these special provisions. The contractor is specifically directed to replace all mailboxes and street signs removed or damaged by his operations. Temporary provision for mail service shall be provided for all existing properties.
 - [b] Damaged concrete pavements and driveways, sidewalks and curb and gutter shall be removed and replaced to existing joints unless otherwise allowed by the Village.
 - [c] Restoration of pavements damaged by normal truck hauling operations; i.e., hauling within approved

weight and speed limits and exercising reasonable care while starting, stopping or turning vehicles, will not be the responsibility of the contractor. This provision does not apply to pavement damaged by truck or other equipment wheels during loading or unloading operations.

[2] Correction of minor replacement problems.

[a] Any minor construction-related replacement or restoration problems brought to the contractor's attention shall be corrected within 24 hours.

[b] Minor problems might include driveway access restrictions caused by rutting, settling or other maintenance problems, damaged or removed mailboxes, blockage of surface drainage and erosion problems.

(b) Culverts. The contractor shall remove and protect culverts conflicting with the utility work and shall replace the culverts to their original line and grade upon completion of utility installation in the immediate area.

(c) Survey monuments.

[1] The contractor's attention is directed to Section 2.1.4 of the Standard Specifications requiring the contractor to protect survey monuments from being damaged. The contractor shall hire a registered land surveyor prior to removing or disturbing any survey monuments within his construction limits to tie in the location of these monuments prior to their removal. All damaged survey monuments shall be replaced by a registered land surveyor at the contractor's expense.

[2] Section corner monuments. The contractor shall remove and salvage all section corner monuments and/or ties within trench excavations. The contractor shall hire a registered land surveyor to tie in these monuments prior to their removal and will be responsible for their replacement. The contractor shall confirm that monuments have been tied in prior to removal.

(d) Pavement protection.

[1] The contractor shall take all precautions necessary to protect road pavements, including shoulders, from being damaged. Sheathing and bracing or the use of a portable trench box, if required, shall be in accordance with Chapter 2.3.0 of the Standard Specifications.

[2] Backfill or excavated material spilled or tracked onto pavements or shoulders shall be removed during the working day or as directed by the Village. Any such materials interfering with traffic shall immediately be swept off with power brooming equipment.

(e) Waterway restoration.

[1] Lawn areas adjacent to waterways (ponds or drainage ditches), including stream banks, shall be restored immediately upon completion of trench backfilling and compaction operations.

[2] Lawn restoration shall include topsoil, fertilizer, seed, mulch and erosion control fabric as specified in these special provisions.

[3] Restoration of banks shall include placing an erosion mat over seeded areas as approved by the Village Engineer. Erosion mat placement shall comply with these special provisions. The fabric shall be installed in accordance with the manufacturer's specifications.

[4] Care shall be taken during construction to minimize erosion into waterways. Temporary erosion control measures, including bales or silt fences, shall be used to prevent sediment-laden runoff from entering waterways.

- (f) Trench surface maintenance. The contractor's attention is directed to Section 2.6.16 of the Standard Specifications, requiring the contractor to maintain trench surfaces for the duration of the contract and for one year after acceptance.
- (6) Lawn replacement. All damaged or destroyed grass and terrace areas located within sewer easements shall be restored with six inches minimum of topsoil and shall be fertilized, seeded and mulched as specified below.
 - (a) Topsoil.
 - [1] Topsoil shall be imported material, furnished by the contractor, consisting of materials as specified in Sections 625.2.1 and 625.3.3 of the State Specifications.
 - [2] Salvaged topsoil may be used to restore lawns only if the material is screened and approved by the Village.
 - [3] Topsoil and salvaged topsoil shall be pulverized (completely broken down to remove all clods and lumps). The material shall be free of rocks, twigs and other foreign material; 100% shall pass a one-inch sieve and at least 90% shall pass the No. 10 sieve (0.08 inch).
 - [4] Topsoil and salvaged topsoil shall be placed in accordance with Section 625.3.3 of the State Specifications.
 - (b) Fertilizer.
 - [1] Topsoil shall be fertilized with fertilizer complying with Section 629 of the State Specifications.
 - [2] Apply "Type A" fertilizer at seven pounds per 1,000 square feet.
 - (c) Seeding with lawn-type turf. All lawn areas restored with topsoil, unless shown otherwise approved by the Village Engineer, shall be seeded with grass seed meeting the requirements of Section 630 of the State Specifications. The seed mixture shall be composed of 50% Kentucky Bluegrass, 25% perennial ryegrass and 25% Creeping Red Fescue. The seed shall be distributed at a rate of four pounds per 1,000 square feet.
 - (d) Mulching.
 - [1] All seeded areas shall be mulched in accordance with the requirements of Section 627 of the State Specifications.
 - [2] The contractor may place mulch using Method A, B or C of Section 627.3.
 - (e) Erosion control mat. Erosion control mat shall meet the requirements of the State Specifications.
 - (f) Lawn restoration timetable. Weather permitting, lawn replacement shall be completed within 30 calendar days after all other work has been completed. Seeding may be done at any time during the growing season when soil conditions are suitable.
- (7) Traffic maintenance.
 - (a) Through traffic access.
 - [1] The contractor shall maintain a minimum of one lane of traffic on Village roads at all times. Roads shall be maintained in a safe condition throughout the duration of the project. The contractor shall take all precautions necessary to safely warn the public of the probable increased danger to travel due to construction of the work.

- [2] All streets shall be open to two-way traffic after working hours and all day on weekends and holidays.
- [3] The contractor shall at all times conduct his work in a manner to minimize obstruction to local traffic.
- (b) Signing, barricades and flagmen. Whenever the contractor's activities obstruct through traffic, there shall be sufficient flagmen on duty to guide the traffic, and the contractor shall furnish and install all temporary signing and barricades required to safely direct the traveling public around the obstructed area.
- [1] As a minimum, suitable barriers shall be erected and maintained at each end of the obstructed section of roadway and at all affected roadway intersections.
- [2] All signing and barricades shall be done in accordance with the latest revision of Part VI, Traffic Controls for Construction and Maintenance Operations, of the Wisconsin Manual of Traffic Control Devices and Section 643 of the State Specifications.
- [3] Whenever traffic on any Village collector/arterial roads or state or county highways is obstructed, the contractor shall provide a minimum of two flagmen to direct traffic at each separate work location.

Attachments:

PUBLIC IMPROVEMENT PROJECTS

405 Attachment 1

APPENDIX A

The following details are included as a part of Appendix A:

Sanitary Sewer and Appurtenances Details

- SAN-1: Standard Manhole Detail
- SAN-2: Flexible Pressure Pipe Riser to Rigid Tee Installed on Flexible Main Detail
- SAN-3: Rigid Riser to Rigid Main Detail
- SAN-4: Standard Riser

Water Main and Appurtenances Details

- W-1: Standard Hydrant
- W-2: Air-Release Hydrant Details
- W-3: Buttress Details
- W-4: Standard Gate Valve Box Setting

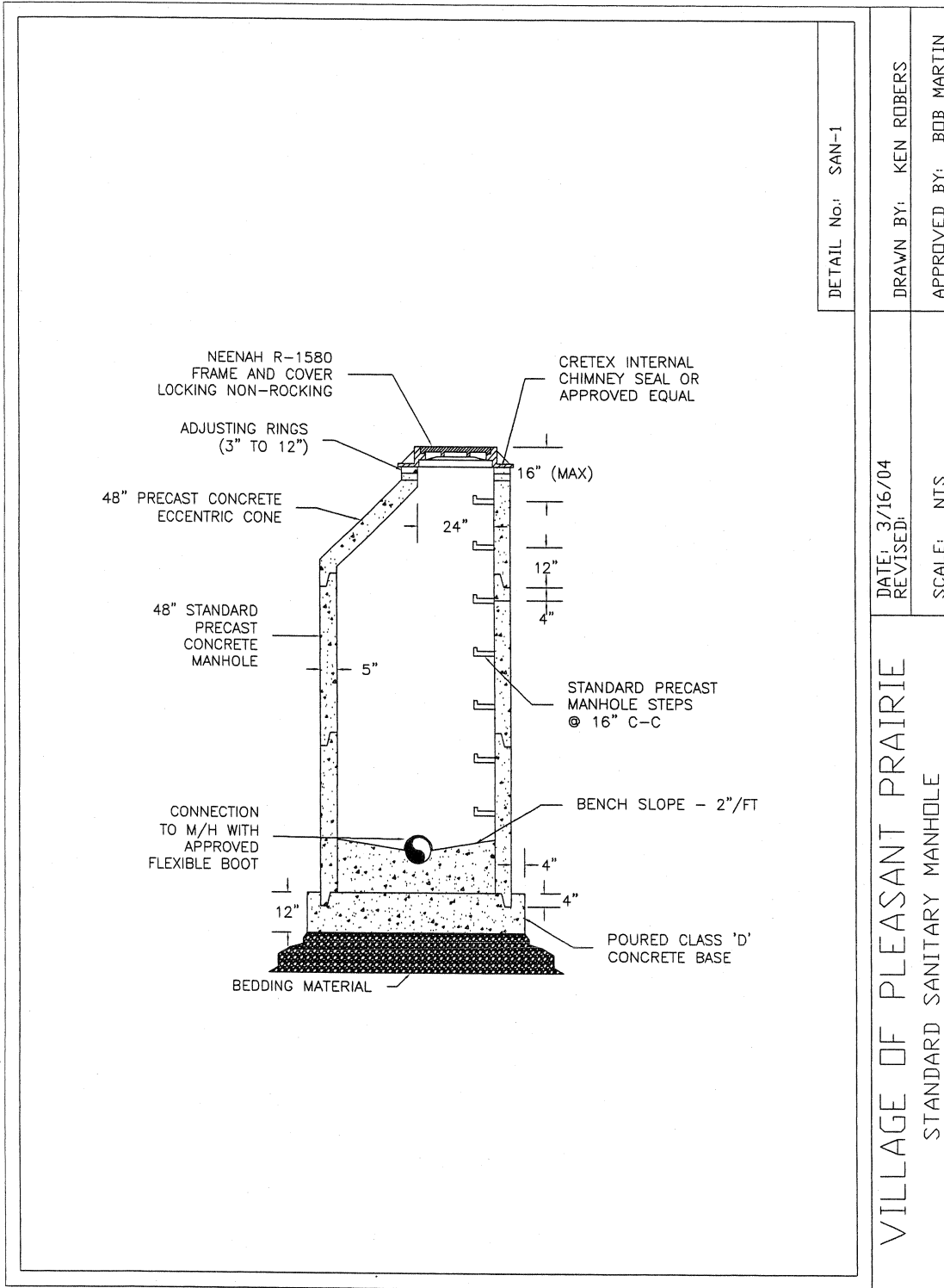
Storm Sewer and Appurtenances Details

- ST-1: Precast Type 1 Storm Manhole
- ST-2: Standard Manhole with Curb Inlet Detail
- ST-3: Standard Beehive Catch Basin Detail
- ST-4: Precast Rectangular Catch Basin
- ST-5: Inlet Protection Type A Standard

Road Cross-Sections and Details

- R-1: Typical Cul-de-Sac with Island
- R-2: Residential Collector Cross-Section
- R-3: Rural Cross- Section for Minor Residential Street
- R-4: Typical Residential Cross Section
- R-5: Arterial Street Cross- Section – Four Lane
- R-6: Industrial Street Cross-Section
- R-7: 30" Mountable Concrete Curb & Gutter
- R-8: 30" Type D Concrete Curb & Gutter
- R-9: 30" Type D Concrete Curb & Gutter – Reverse Flow

PUBLIC IMPROVEMENT PROJECTS



DETAIL No.: SAN-1

DRAWN BY: KEN ROBERS

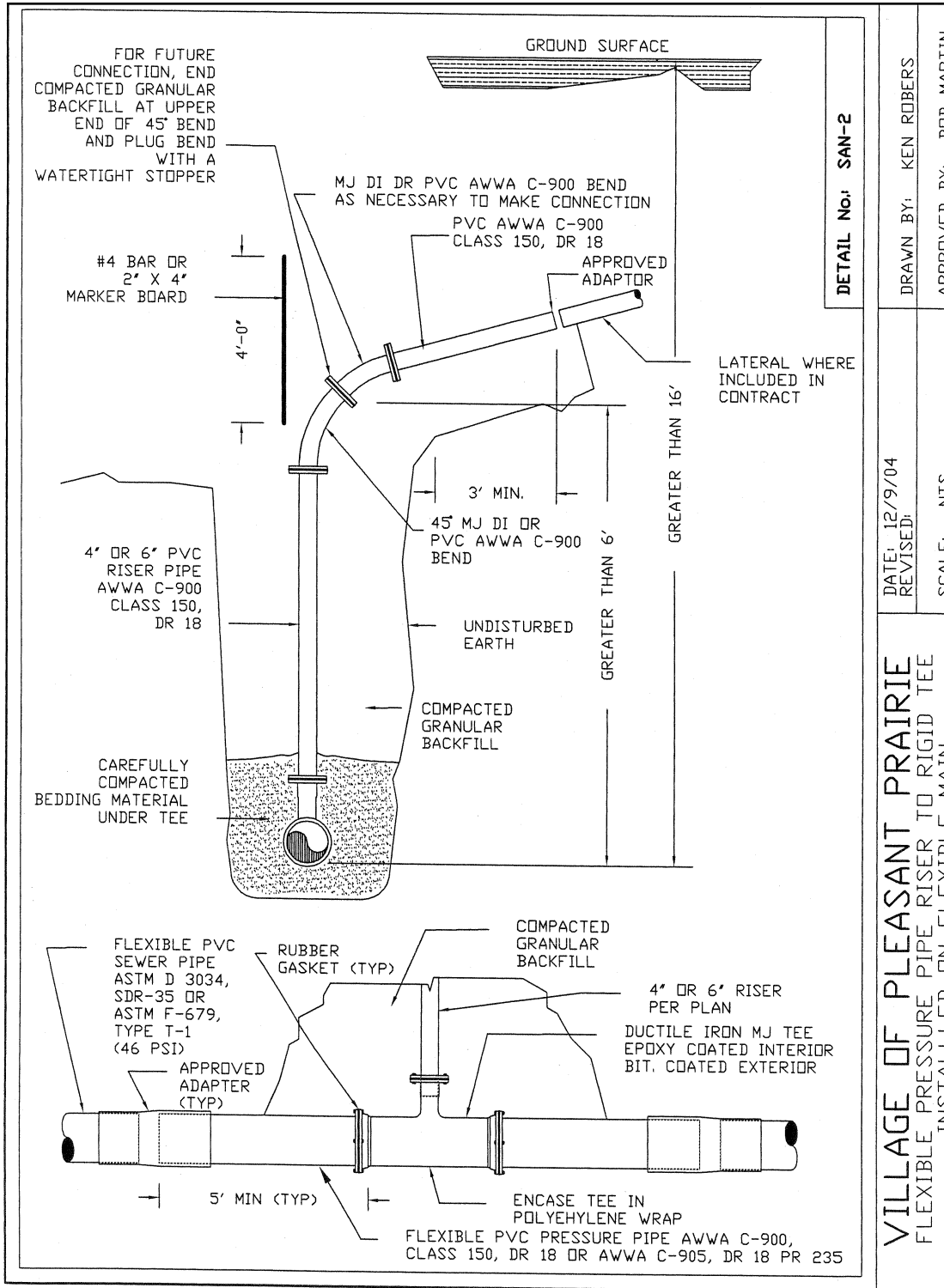
APPROVED BY: BOB MARTIN

DATE: 3/16/04
REVISED:

SCALE: NTS

VILLAGE OF PLEASANT PRAIRIE
STANDARD SANITARY MANHOLE

PLEASANT PRAIRIE CODE



DETAIL No: SAN-2

DRAWN BY: KEN ROBERS

APPROVED BY: BOB MARTIN

DATE: 12/9/04

REVISED:

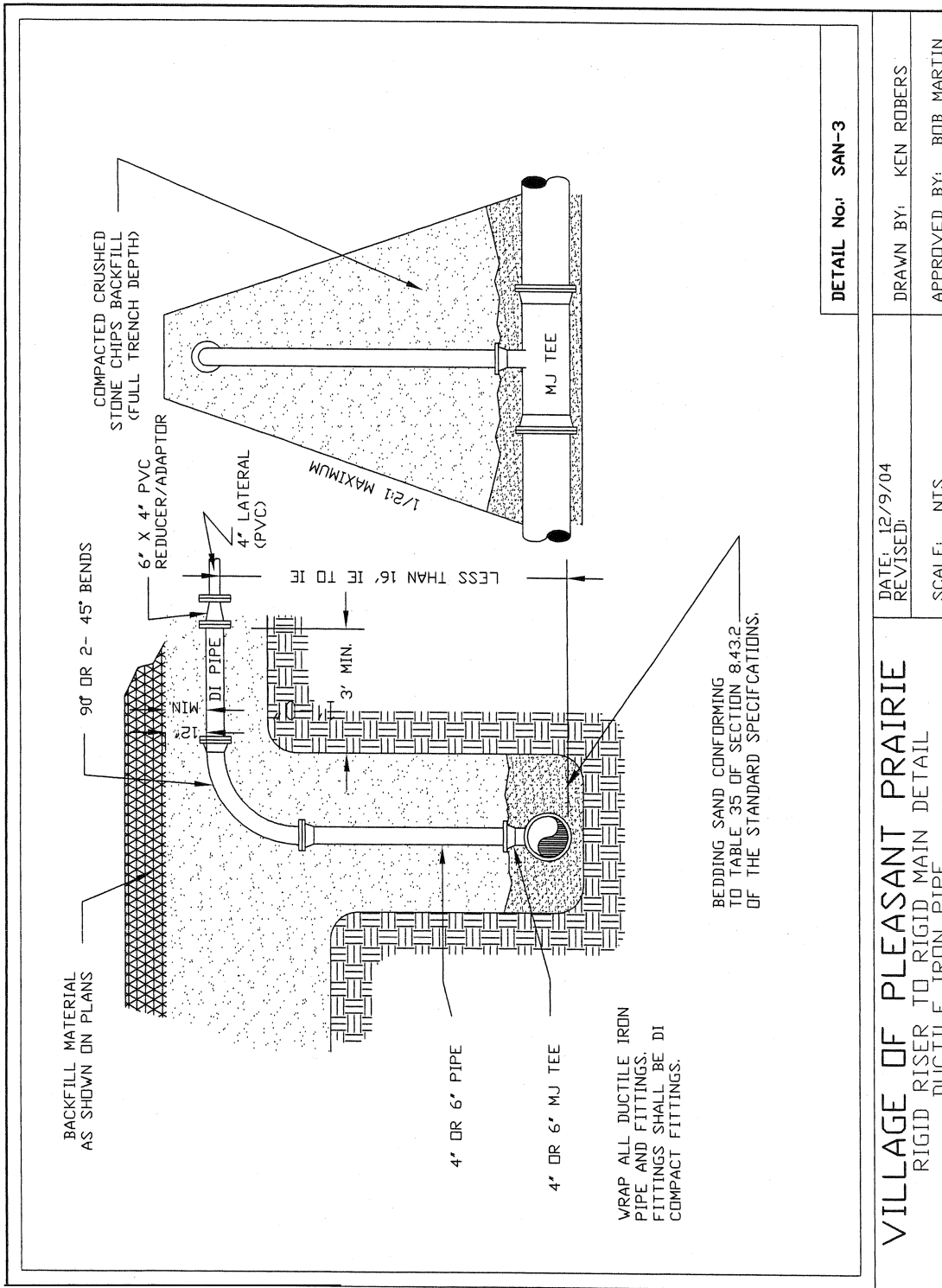
SCALE: NTS

VILLAGE OF PLEASANT PRAIRIE

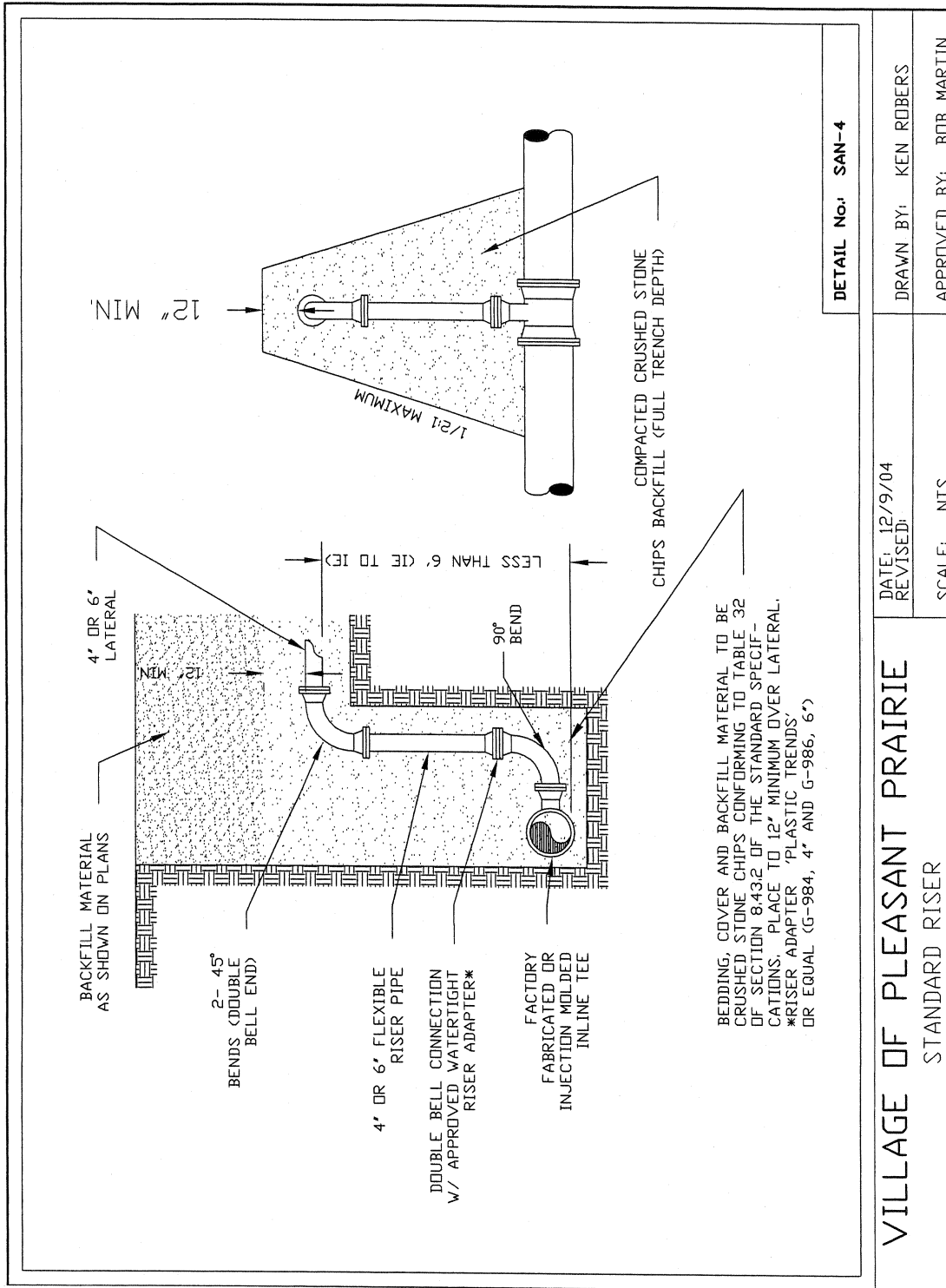
FLEXIBLE PRESSURE PIPE RISER TO RIGID TEE

INSTALLED ON FLEXIBLE MAIN

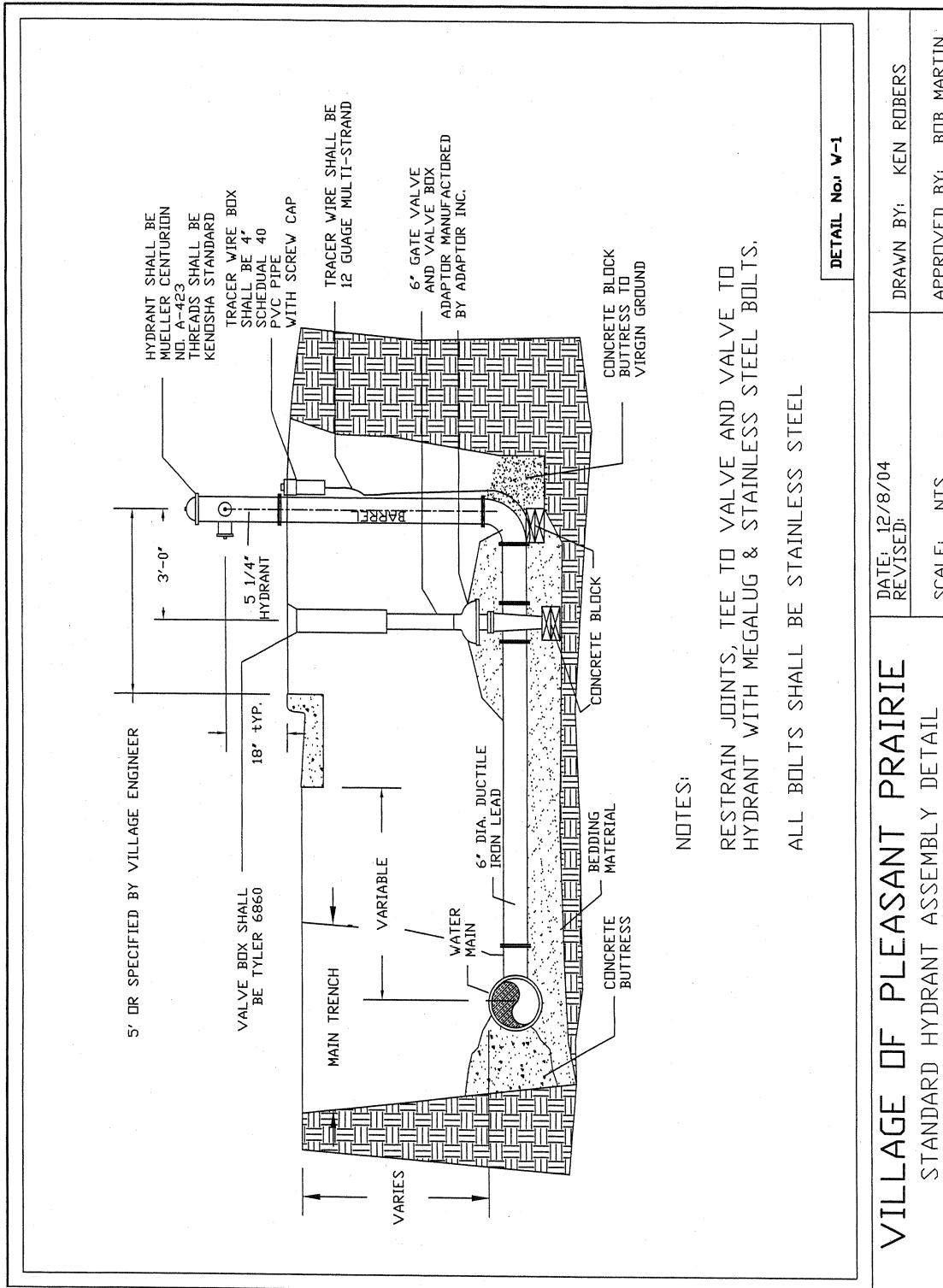
PUBLIC IMPROVEMENT PROJECTS



PLEASANT PRAIRIE CODE



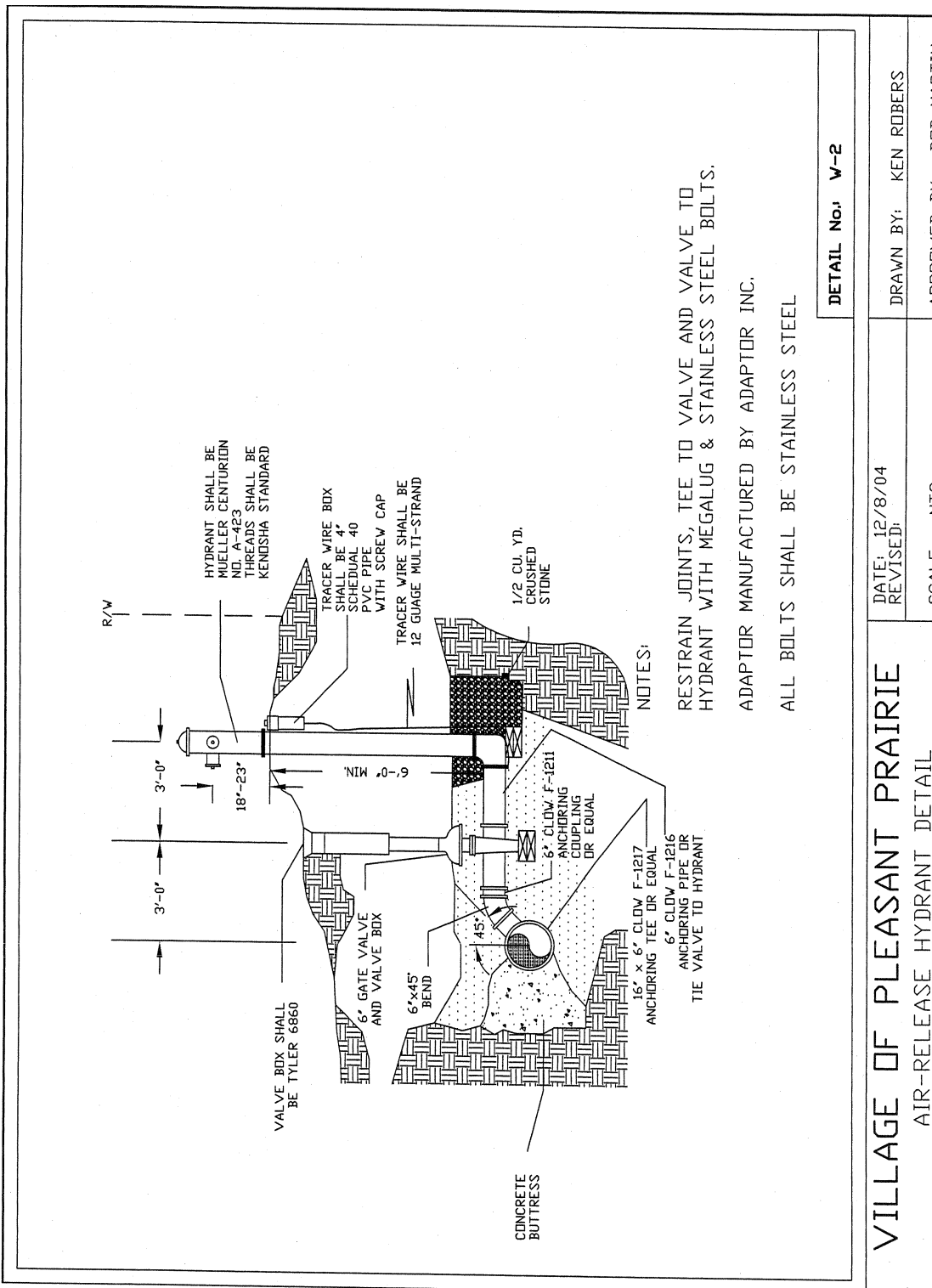
PUBLIC IMPROVEMENT PROJECTS



VILLAGE OF PLEASANT PRAIRIE
 STANDARD HYDRANT ASSEMBLY DETAIL

DATE: 12/8/04
 REVISED:
 SCALE: NTS

DRAWN BY: KEN ROBERS
 APPROVED BY: BOB MARTIN



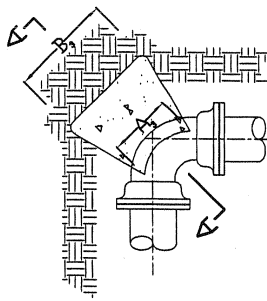
VILLAGE OF PLEASANT PRAIRIE
AIR-RELEASE HYDRANT DETAIL

DATE: 12/8/04
REVISED:

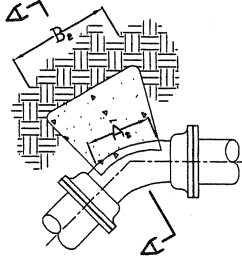
DRAWN BY: KEN ROBERS

APPROVED BY: BOB MARTIN

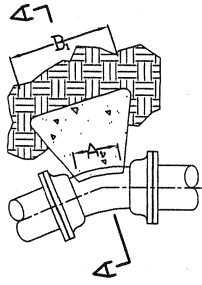
SCALE: NTS



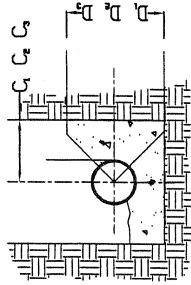
PLAN - 90° BEND



PLAN - 45° BEND



PLAN - 22 1/2° BEND



SECTION A-A

- NOTES:
1. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 PSI AND ON EARTH RESISTANCE OF 2 TONS PER SQ. FT.
 2. DIMENSION C, C₂, C₃ SHOULD BE LARGE ENOUGH TO MAKE ANGLE θ EQUAL TO OR LARGER THAN 45°
 3. DIMENSION A, A₁ SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH MJ BOLTS
 4. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POUR IS AGAINST FIRM UNSUBTURBED EARTH
 5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE
 6. STAINLESS STEEL BOLTS REQUIRED ON ALL FITTINGS.

BUTTRESS DIMENSIONS		45° BEND		90° BEND		
PIPE SIZE	B ₁	D ₁	B ₂	D ₂	B ₃	D ₃
6"	1'-3"	1'-0"	1'-0"	1'-4"	1'-4"	1'-2"
8"	1'-6"	1'-4"	1'-4"	1'-2"	1'-10"	1'-6"
12"	2'-3"	2'-0"	1'-10"	1'-10"	2'-8"	2'-3"
16"	3'-2"	2'-6"	2'-6"	2'-4"	3'-10"	2'-10"
20"	4'-0"	3'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	5'-3"	3'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30"	6'-3"	4'-3"	5'-4"	3'-10"	8'-0"	4'-8"

DETAIL No: W-3

VILLAGE OF PLEASANT PRAIRIE
BUTTRESS DETAILS

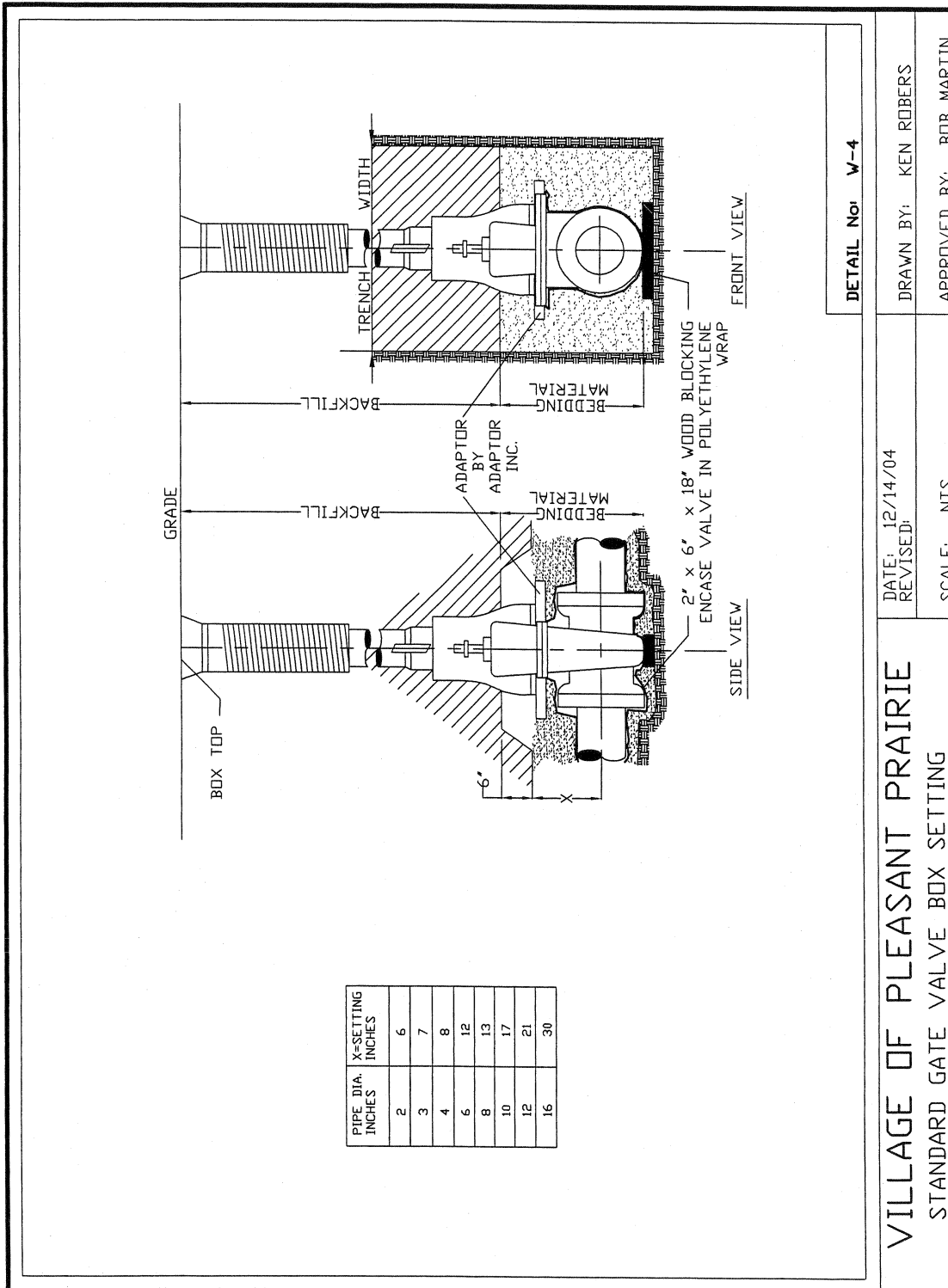
DATE: 12/11/04
REVISED:

DRAWN BY: KEN ROBERS

APPROVED BY: BOB MARTIN

SCALE: NTS

PLEASANT PRAIRIE CODE

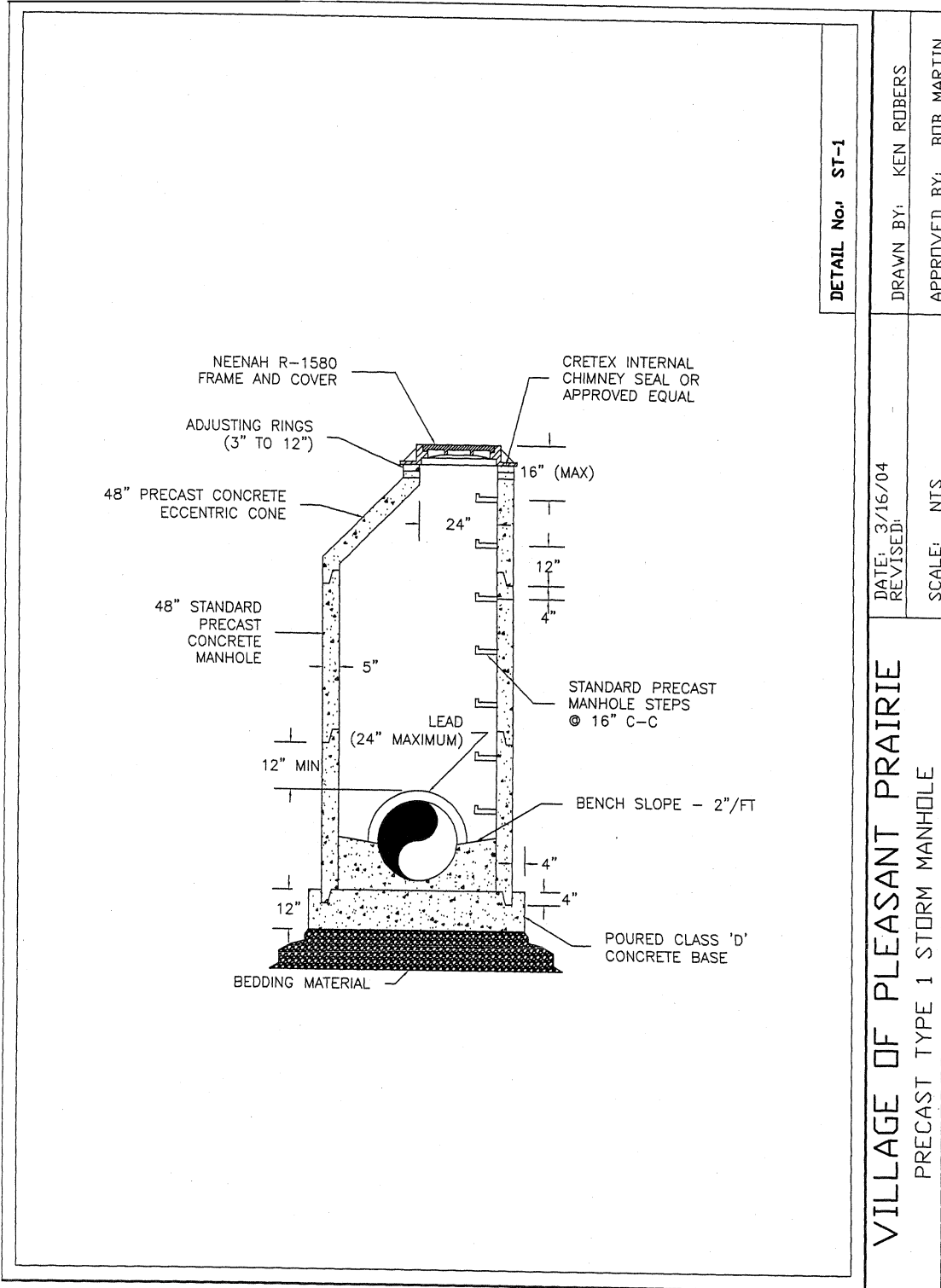


DETAIL No: W-4
 DRAWN BY: KEN ROBERS
 APPROVED BY: BOB MARTIN

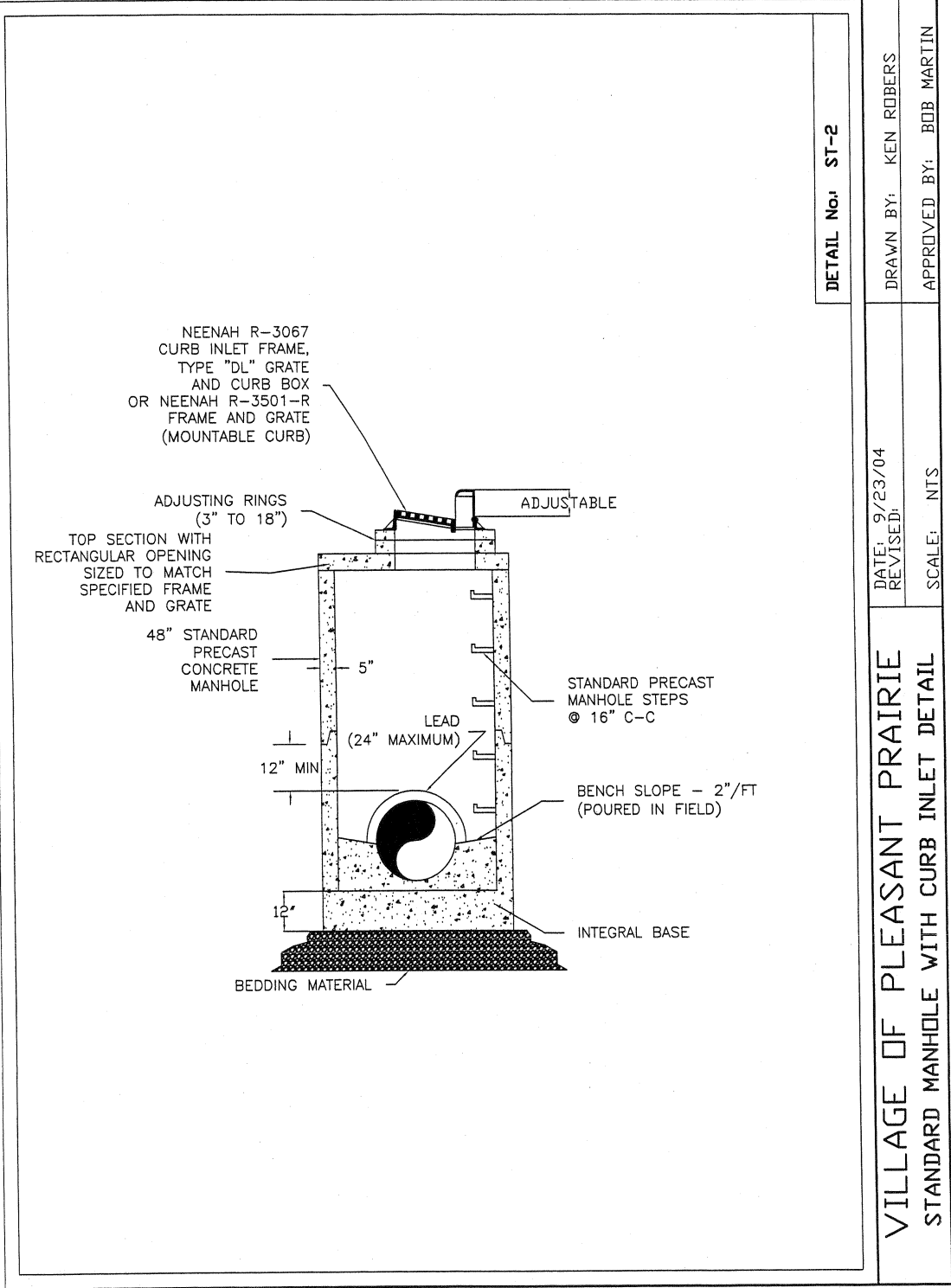
DATE: 12/14/04
 REVISED:
 SCALE: NTS

VILLAGE OF PLEASANT PRAIRIE
 STANDARD GATE VALVE BOX SETTING

PUBLIC IMPROVEMENT PROJECTS



PLEASANT PRAIRIE CODE



DETAIL No. ST-2

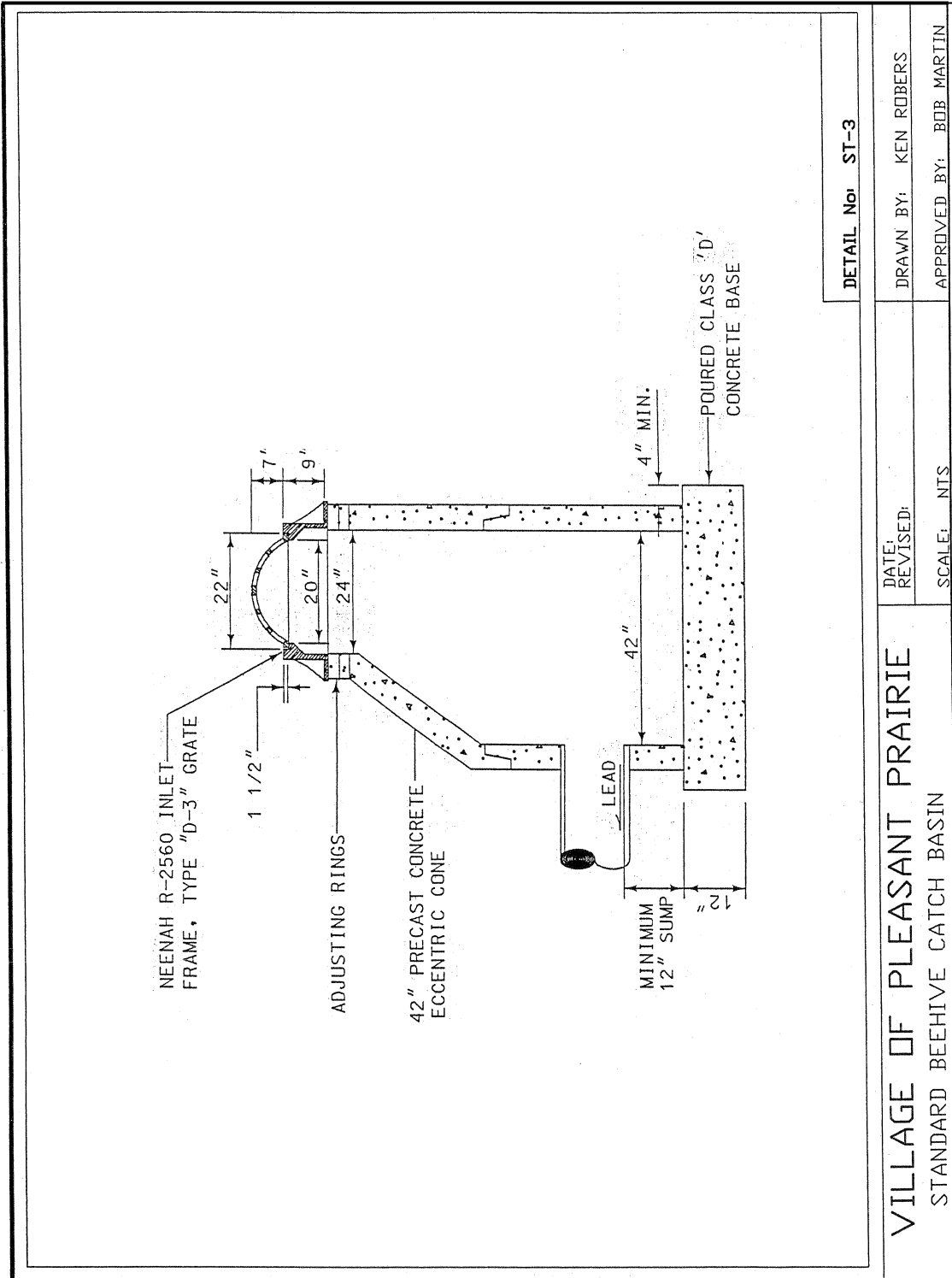
DRAWN BY: KEN ROBERS
 APPROVED BY: BOB MARTIN

DATE: 9/23/04
 REVISED:

SCALE: NTS

VILLAGE OF PLEASANT PRAIRIE
 STANDARD MANHOLE WITH CURB INLET DETAIL

PUBLIC IMPROVEMENT PROJECTS



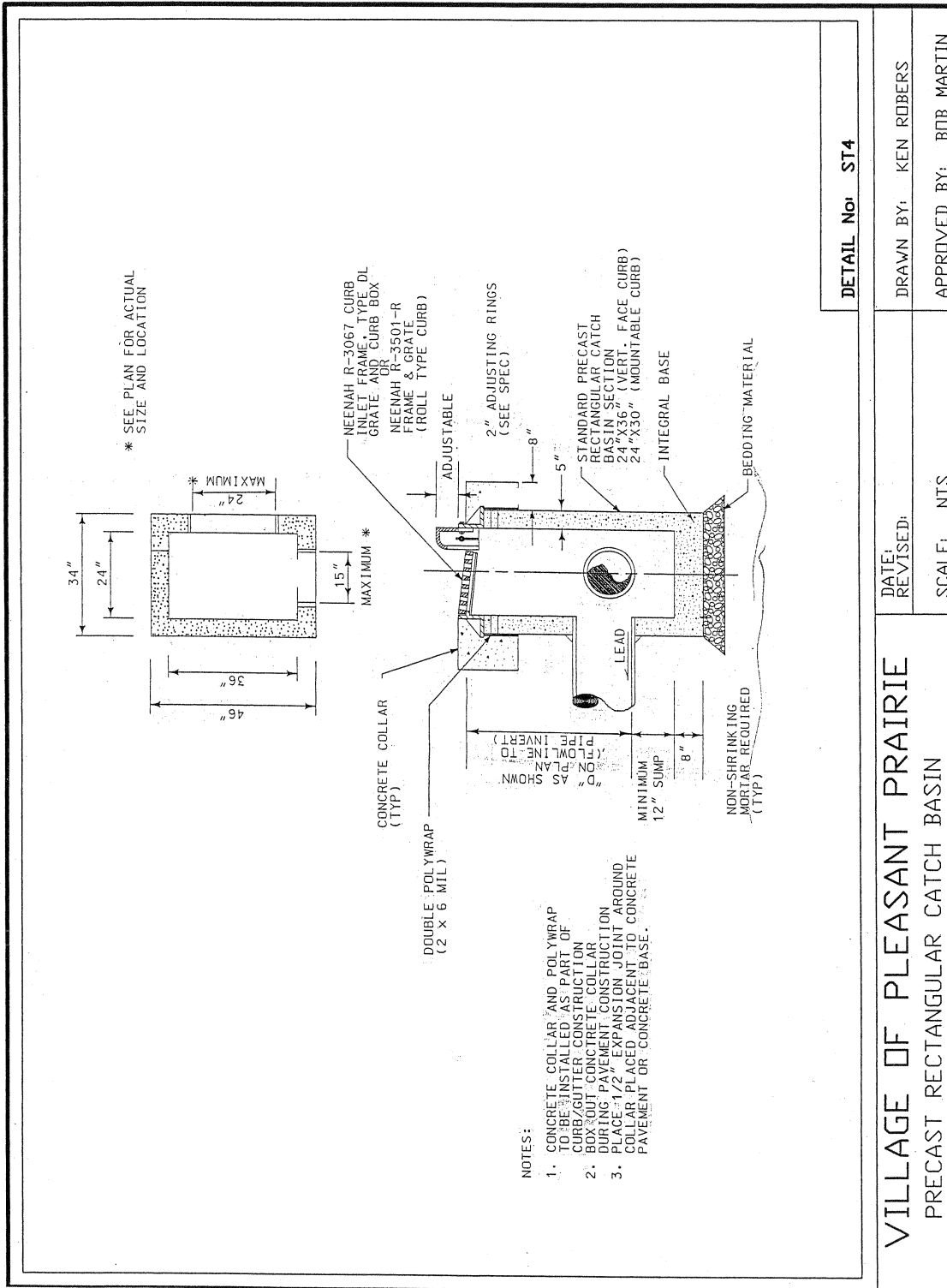
DETAIL No. ST-3

DATE: _____
 REVISION: _____
 SCALE: NTS

DRAWN BY: KEN ROBERS
 APPROVED BY: BOB MARTIN

VILLAGE OF PLEASANT PRAIRIE
 STANDARD BEEHIVE CATCH BASIN

PLEASANT PRAIRIE CODE



* SEE PLAN FOR ACTUAL SIZE AND LOCATION

- NOTES:
1. CONCRETE COLLAR AND POLYWRAP TO BE INSTALLED AS PART OF CURB/GUTTER CONSTRUCTION
 2. BOX JOINT CONCRETE COLLAR DURING PAVEMENT CONSTRUCTION
 3. PLACE 1/2" EXPANSION JOINT AROUND COLLAR PLACED ADJACENT TO CONCRETE PAVEMENT OR CONCRETE BASE.

DETAIL No. ST4

DRAWN BY: KEN ROBERS

APPROVED BY: BOB MARTIN

DATE: _____

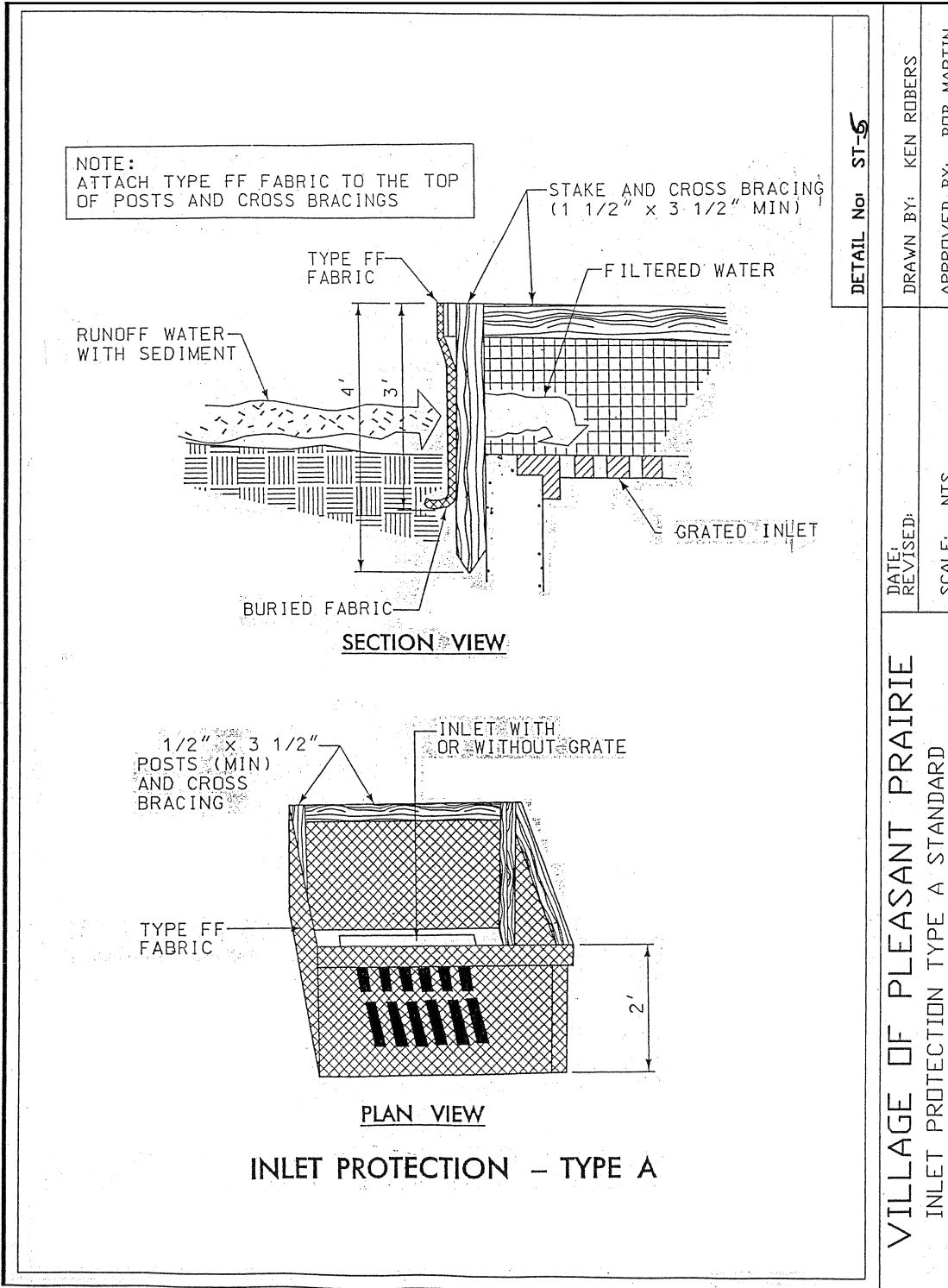
REVISED: _____

SCALE: NTS

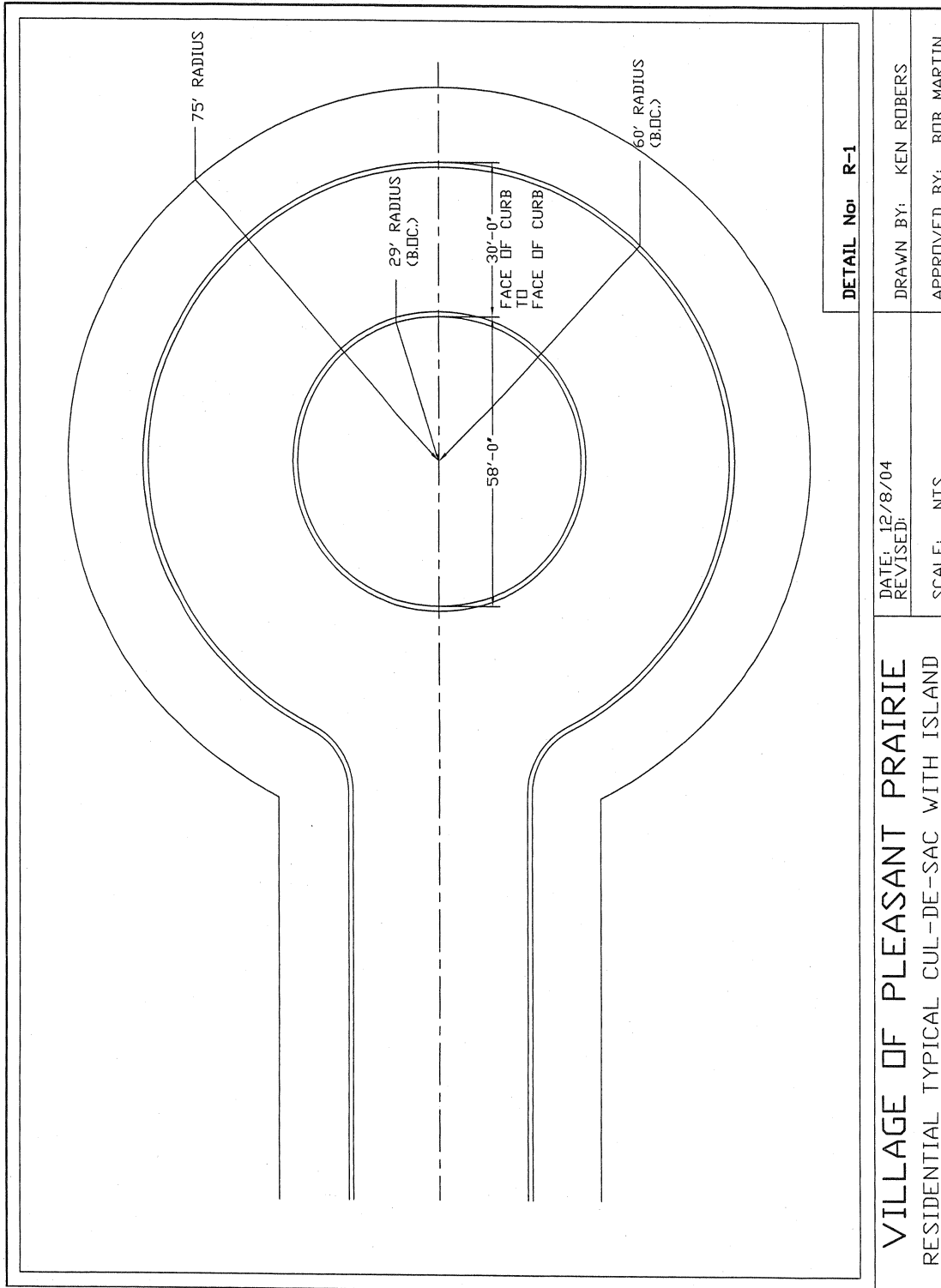
VILLAGE OF PLEASANT PRAIRIE

PRECAST RECTANGULAR CATCH BASIN

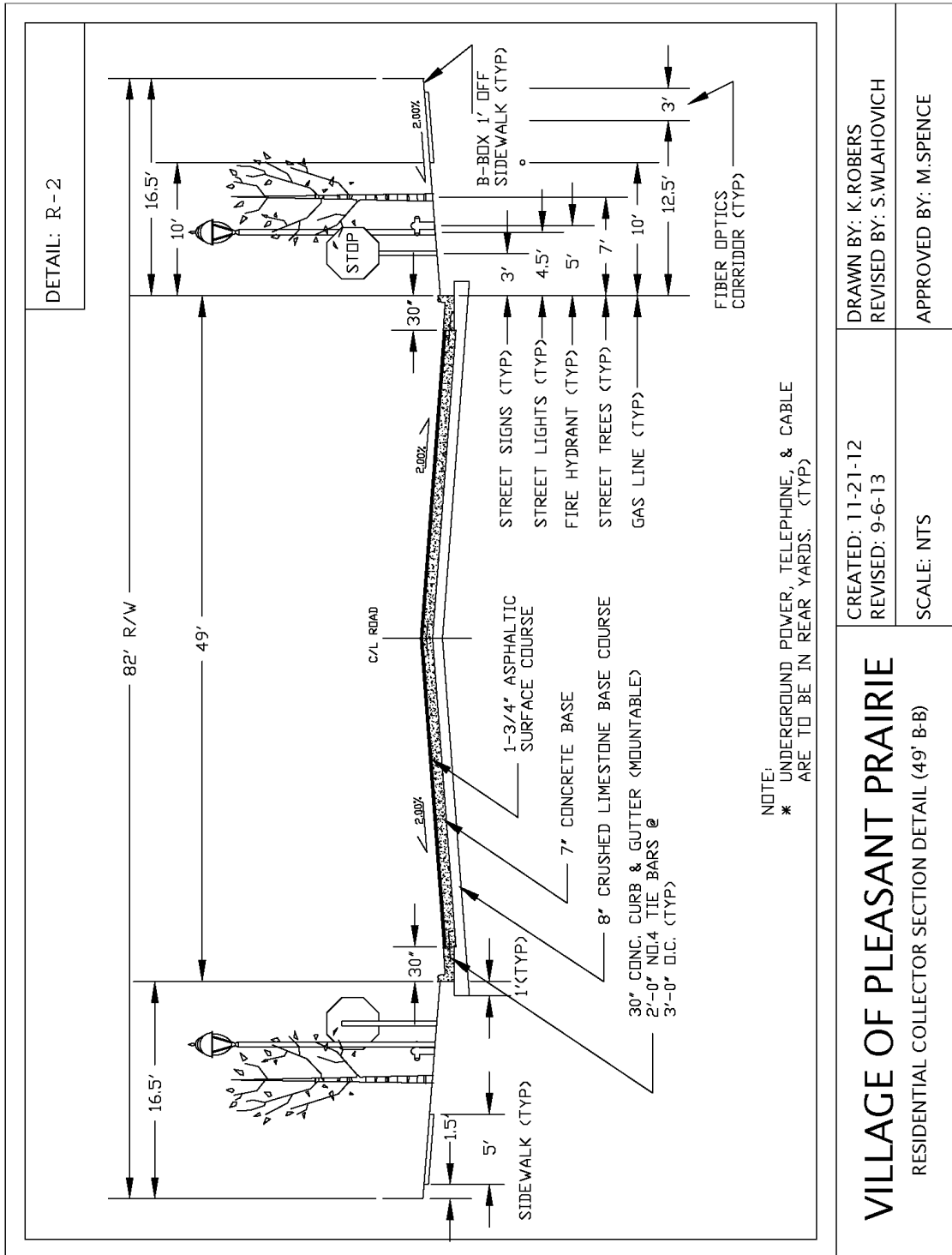
PUBLIC IMPROVEMENT PROJECTS



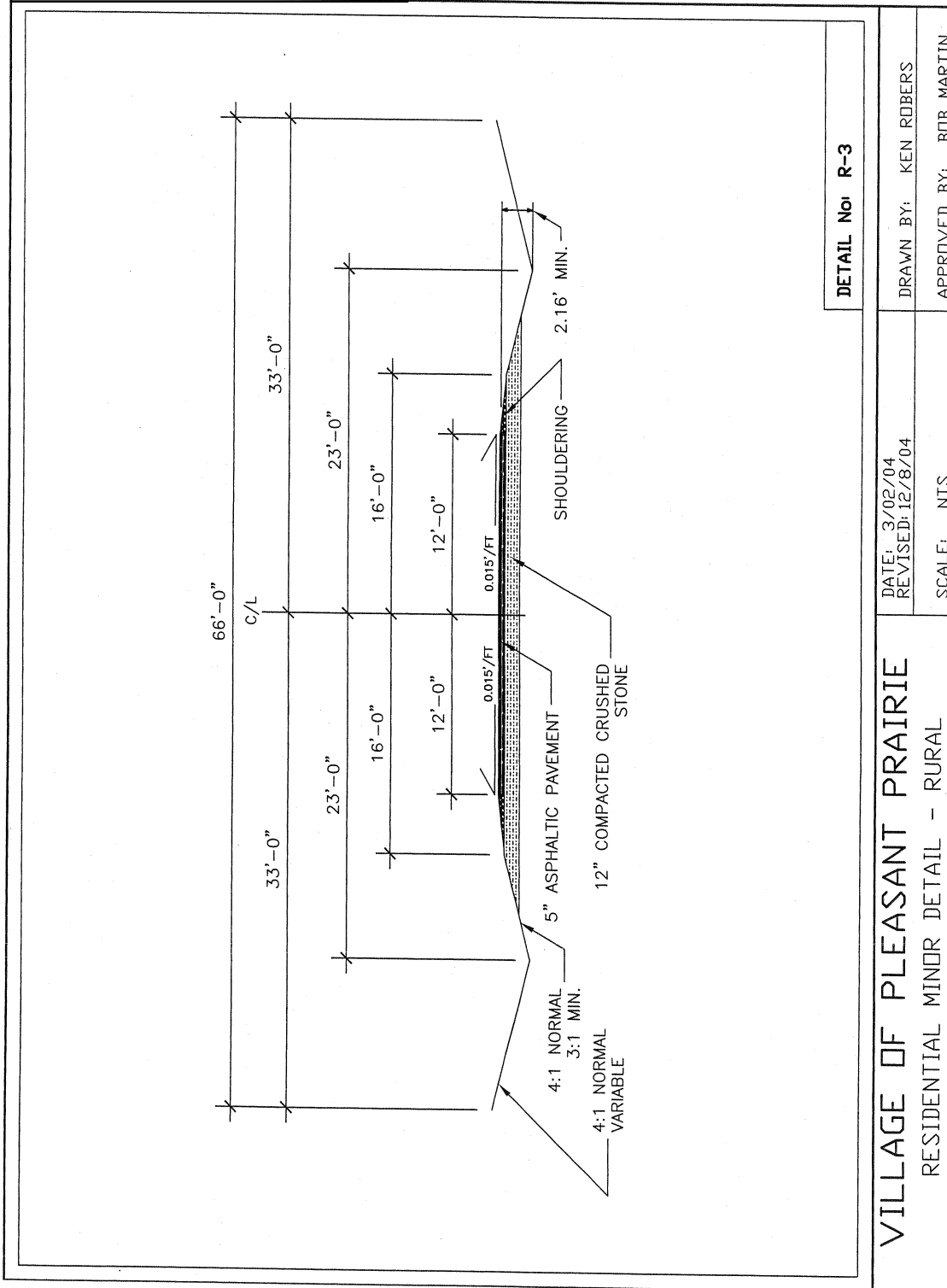
PLEASANT PRAIRIE CODE



PUBLIC IMPROVEMENT PROJECTS



PLEASANT PRAIRIE CODE



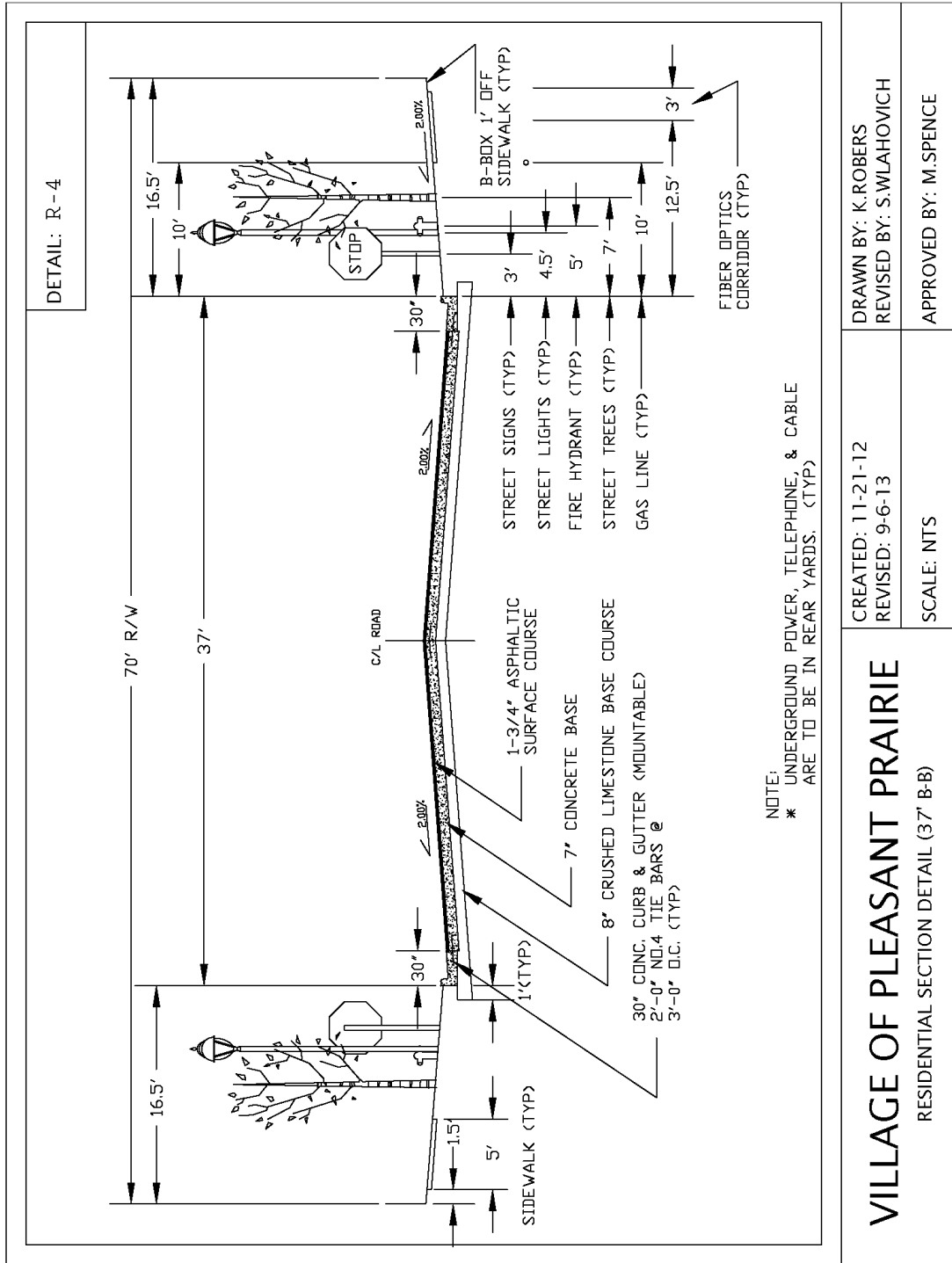
DETAIL No: R-3

DATE: 3/02/04
 REVISED: 12/8/04
 SCALE: NTS

VILLAGE OF PLEASANT PRAIRIE
 RESIDENTIAL MINOR DETAIL - RURAL

DRAWN BY: KEN ROBERS
 APPROVED BY: BOB MARTIN

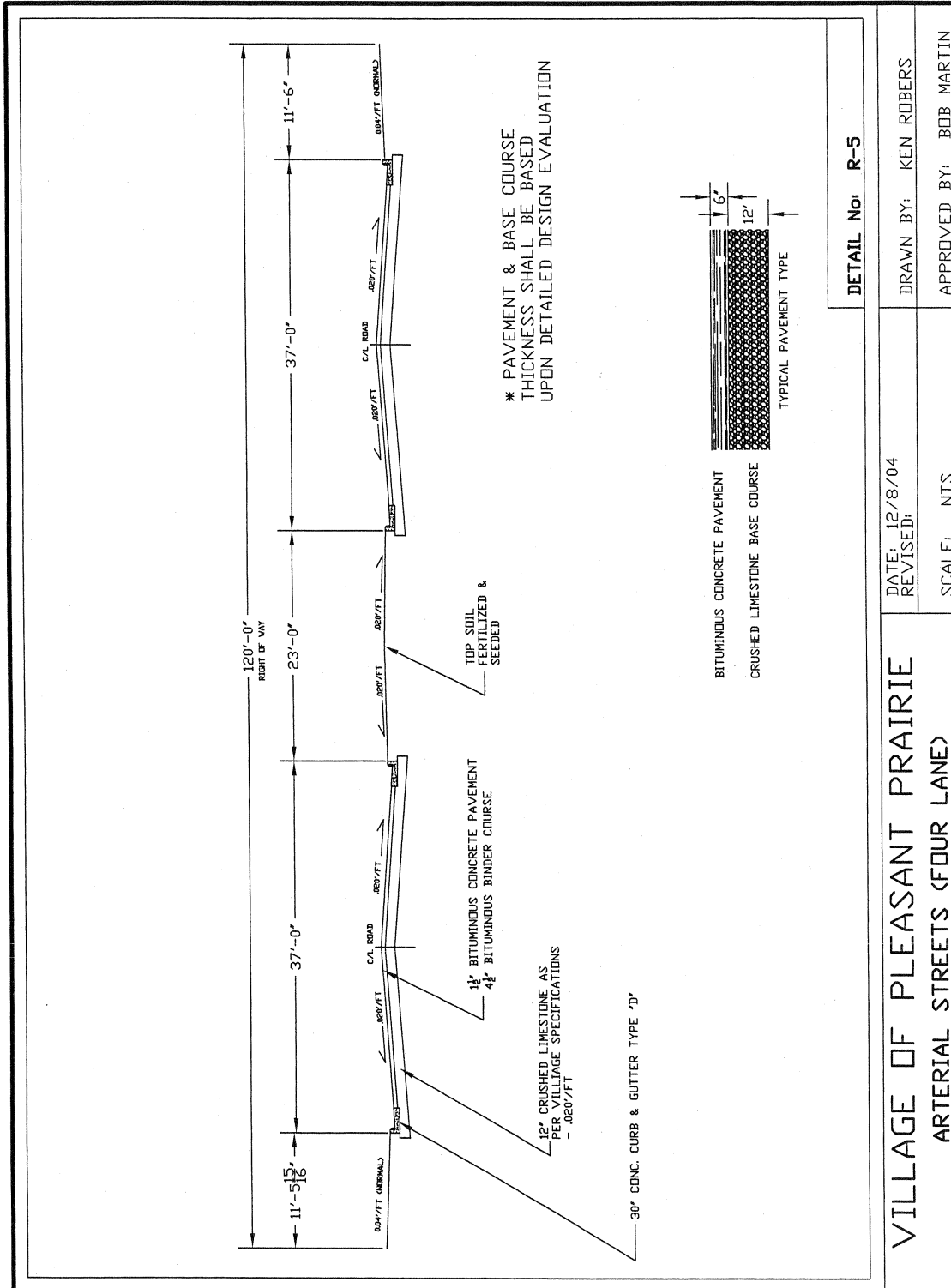
PUBLIC IMPROVEMENT PROJECTS



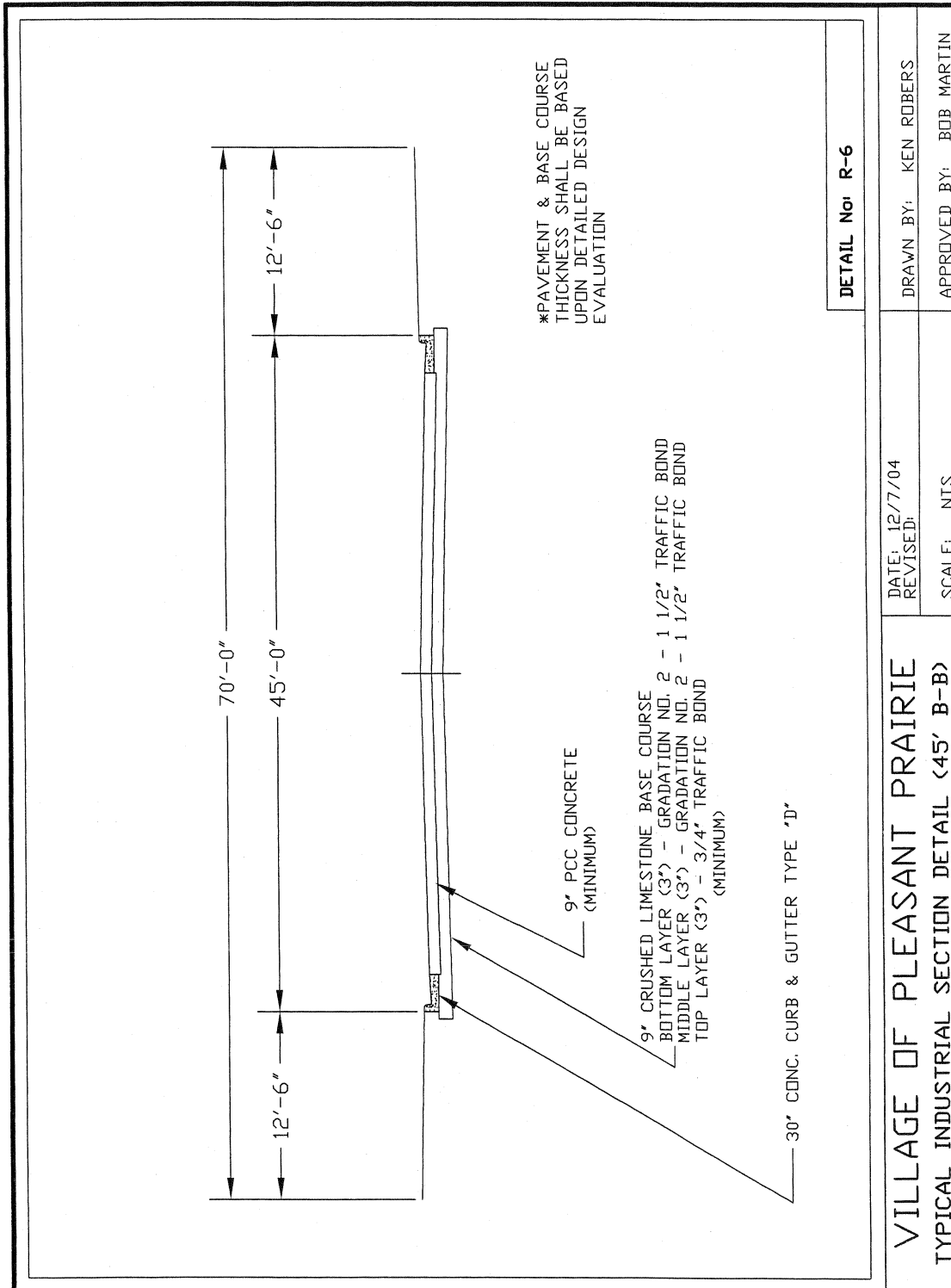
DRAWN BY: K.ROBERS REVISED BY: S.WLAHOVICH	
CREATED: 11-21-12 REVISED: 9-6-13	SCALE: NTS
APPROVED BY: M.SPENCE	

VILLAGE OF PLEASANT PRAIRIE
RESIDENTIAL SECTION DETAIL (37' B-B)

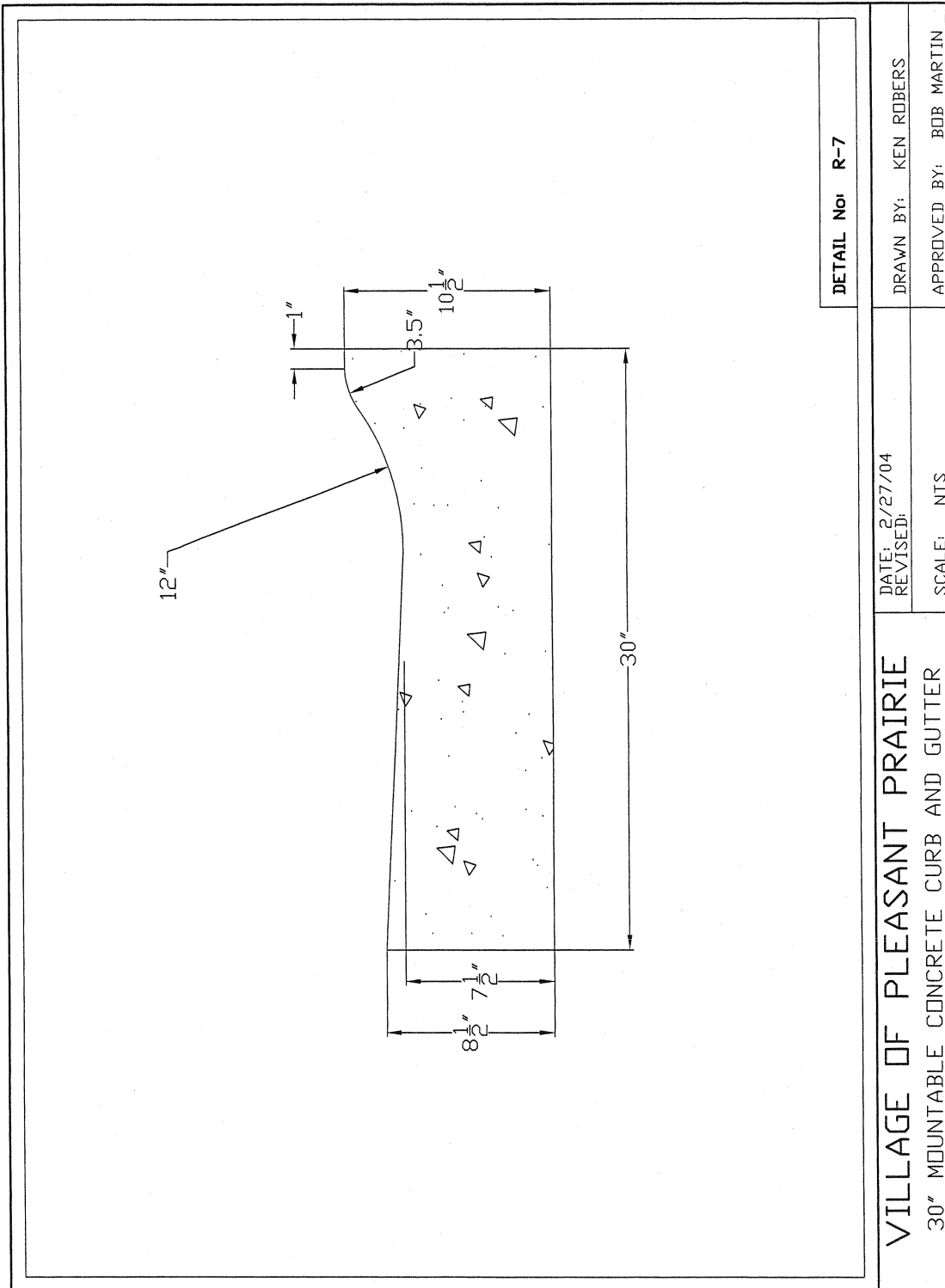
PLEASANT PRAIRIE CODE



PUBLIC IMPROVEMENT PROJECTS



PLEASANT PRAIRIE CODE



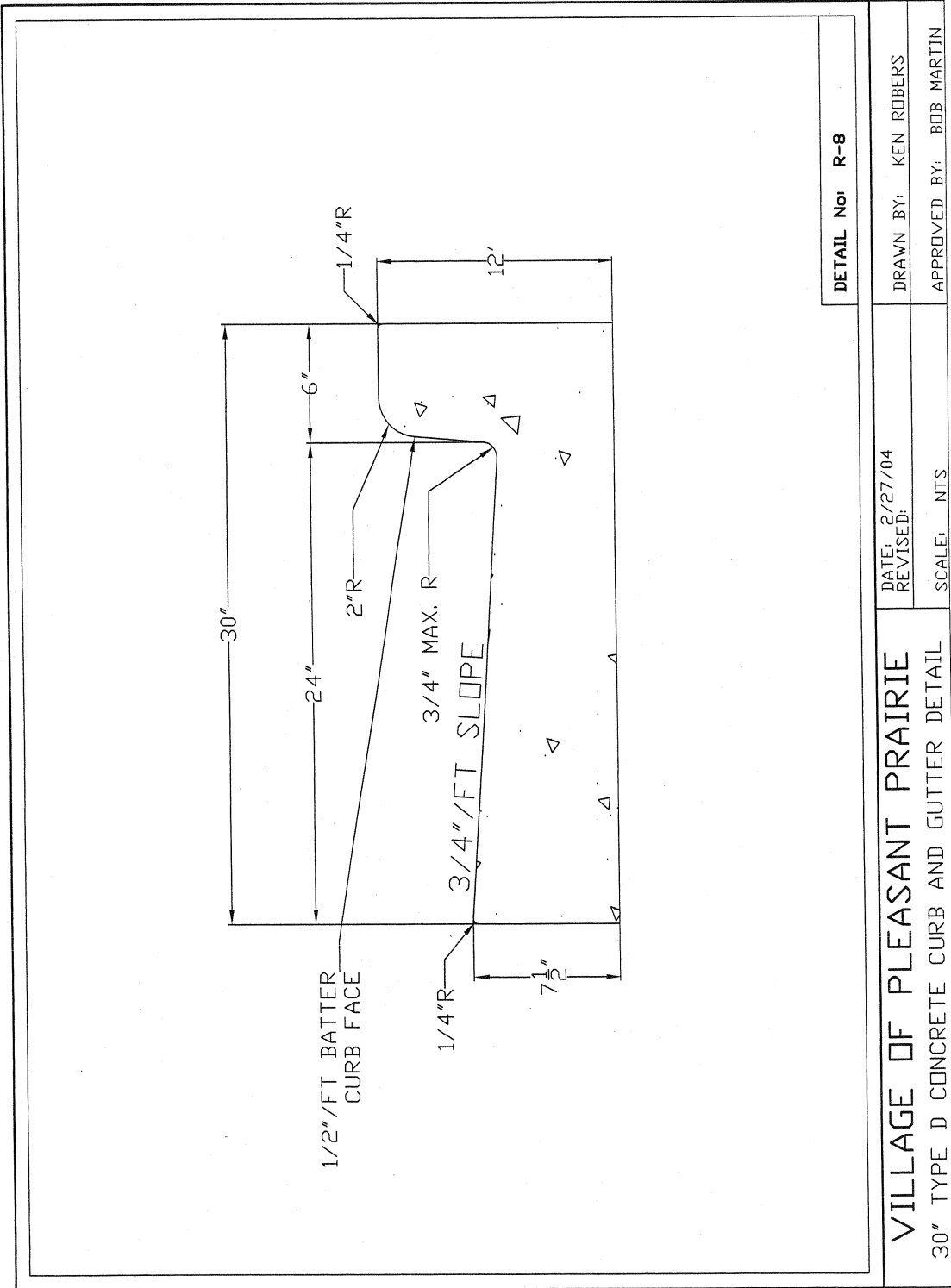
DETAIL No: R-7

DATE: 2/27/04
 REVISED:
 SCALE: NTS

VILLAGE OF PLEASANT PRAIRIE
 30" MOUNTABLE CONCRETE CURB AND GUTTER

DRAWN BY: KEN ROBERS
 APPROVED BY: BOB MARTIN

PUBLIC IMPROVEMENT PROJECTS



DETAIL No: R-8

DRAWN BY: KEN ROBERS

APPROVED BY: BOB MARTIN

DATE: 2/27/04

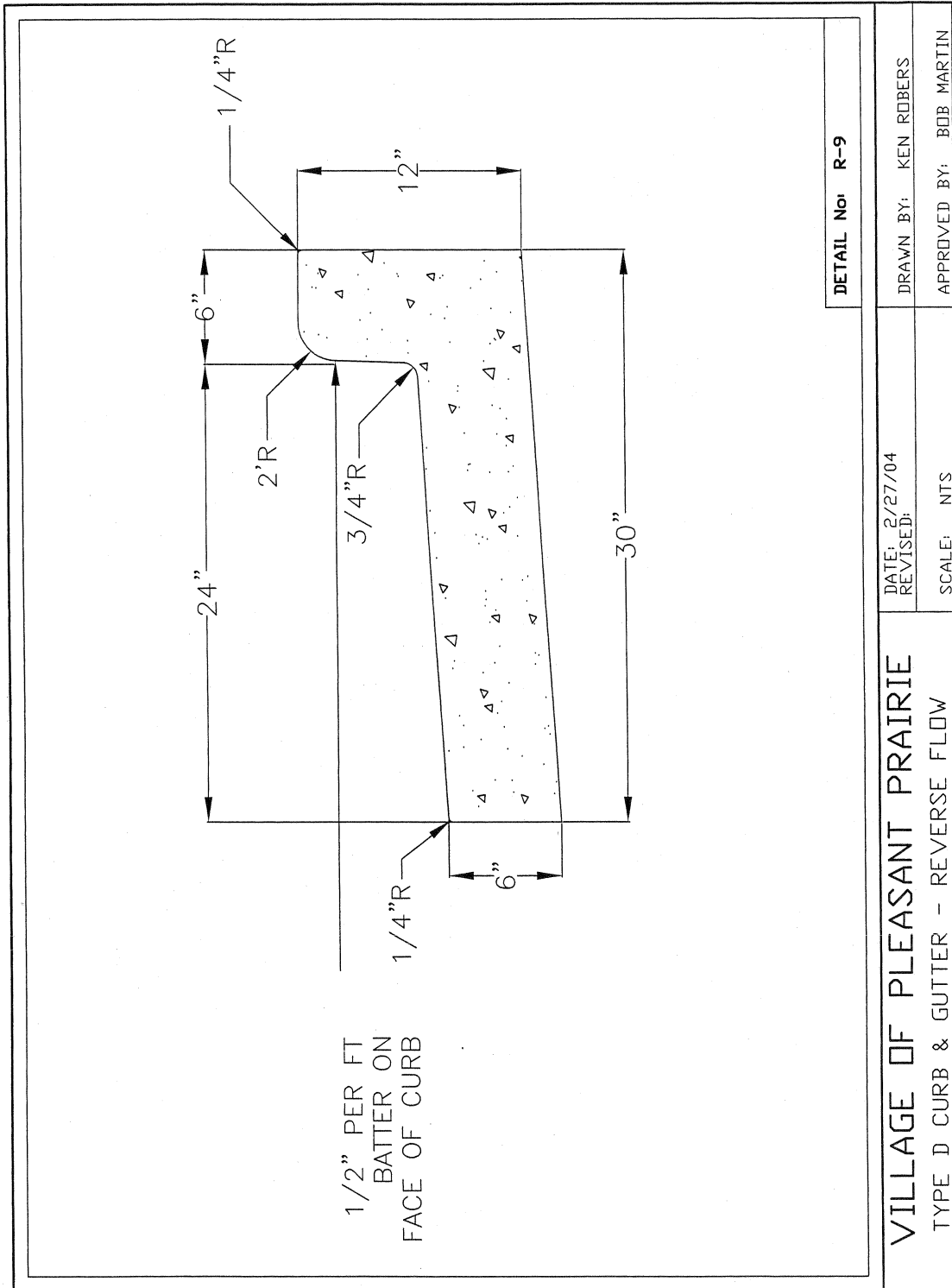
REVISIONS:

SCALE: NTS

VILLAGE OF PLEASANT PRAIRIE

30" TYPE D CONCRETE CURB AND GUTTER DETAIL

PLEASANT PRAIRIE CODE



MEMORANDUM

To: Village Board of Trustees

**From: John P. Steinbrink Sr.
Village President**

Date: April 14, 2016

Re: Commission Appointments

I recommend the following appointments to the committees for the terms listed below:

Plan Commission

Thomas Terwall	Term – May 1, 2019
Wayne Koessl	Term – May 1, 2019
Judith Juliana	Term – May 1, 2019
John Skalbeck (Alternate #1)	Term – May 1, 2017
Brock Williamson (Alternate #2)	Term – May 1, 2017

Park Commission

Kris Keckler	Term – May 1, 2018
Troy Holm	Term – May 1, 2018
Dan Klemack	Term – May 1, 2018
Cindy Schwab	Term – May 1, 2018
Jim Bandura (Alternate #1)	Term – May 1, 2017
David Klimisch (Alternate #2)	Term – May 1, 2017

Police & Fire Commission

Terri Harold	Term – May 1, 2021
--------------	--------------------

Board of Appeals

Dwayne Pinon	Term – May 1, 2019
Samara "Sammie" Lancia*	Term – May 1, 2019
Dragan Obradovich	Term – May 1, 2019

Board of Review

Jill Sikorski	Term – May 1, 2021
Bill Morris	Term – May 1, 2021
Jim Bilotti (Alternate)	Term – May 1, 2021

Kenosha Area Convention and Visitor's Bureau

Michael Pollocoff	Term – May 1, 2019
Larry Nelson	Term – May 1, 2019
Carol Willke	Term – May 1, 2019
Mark A. Wistar	Term – May 1, 2019

* * * * *