

**Winnetka Village Council**  
**REGULAR MEETING**  
**Village Hall**  
510 Green Bay Road  
Tuesday, September 1, 2015  
7:00 p.m.

Emails regarding any agenda item are welcomed. Please email [contactcouncil@winnetka.org](mailto:contactcouncil@winnetka.org), and your email will be relayed to the Council members. Emails for the Tuesday Council meeting must be received by Monday at 4 p.m. Any email may be subject to disclosure under the Freedom of Information Act.

**AGENDA**

- 1) Call to Order
- 2) Pledge of Allegiance
- 3) Quorum
  - a) September 8, 2015 Study Session
  - b) September 15, 2015 Regular Meeting
  - c) October 6, 2015 Regular Meeting
- 4) Approval of Agenda
- 5) Consent Agenda
  - a) Approval of Village Council Minutes:
    - i) August 18, 2015 Regular Meeting ..... 3
  - b) Approval of Warrant List dated August 14 – 27, 2015.....6
  - c) Ordinance No. M-16-2015: Request for Village to Vacate Alley Right-of-Way Adjacent to 319 Fairview Avenue – Adoption .....7
  - d) Ordinance No. M-17-2015: Special Use Permit for Yoga and Fitness Studio in C-2 Retail Overlay District, 549 Lincoln Avenue – Adoption .....18
  - e) Resolution No. R-26-2015: Third Amendment to a License Agreement with New Cingular Wireless PCS, LLC – Adoption.....30
- 6) Stormwater Report
  - a) Willow Road STADI Project: Independent Engineer’s Cost Estimate Review .....89
- 7) Ordinances and Resolutions
  - a) Ordinance No. MC-6-2015: Amending Winnetka Village Code Regarding Water Conservation – Amend & Adopt .....173
  - b) Ordinance No. M-18-2015: 525 Elm Street, Variations for the Construction and Use of a Detached Garage –Introduction / Adoption.....182
- 8) Public Comment

- 9) Old Business: None.
- 10) New Business
  - a) Downtown Master Plan Steering Committee .....217
- 11) Appointments
- 12) Reports
- 13) Executive Session
- 14) Adjournment

**NOTICE**

All agenda materials are available at [villageofwinnetka.org](http://villageofwinnetka.org) (Government > Council Information > Agenda Packets & Minutes); the Reference Desk at the Winnetka Library; or in the Manager’s Office at Village Hall (2<sup>nd</sup> floor).

Broadcasts of the Village Council meetings are televised on Channel 10 and AT&T Uverse Channel 99 every night at 7 PM. Webcasts of the meeting may also be viewed on the Internet via a link on the Village’s web site: <http://winn-media.com/videos/>

The Village of Winnetka, in compliance with the Americans with Disabilities Act, requests that all persons with disabilities who require certain accommodations to allow them to observe and/or participate in this meeting or have questions about the accessibility of the meeting or facilities, contact the Village ADA Coordinator – Megan Pierce, at 510 Green Bay Road, Winnetka, Illinois 60093, 847-716-3543; T.D.D. 847-501-6041.

**MINUTES  
WINNETKA VILLAGE COUNCIL  
REGULAR MEETING  
August 18, 2015**

(Approved: xx)

A record of a legally convened regular meeting of the Council of the Village of Winnetka, which was held in the Village Hall Council Chambers on Tuesday, August 18, 2015, at 7:00 p.m.

- 1) Call to Order. President Greable called the meeting to order at 7:01 p.m. Present: Trustees Andrew Cripe, Carol Fessler, William Krucks, Stuart McCrary, and Scott Myers. Absent: Trustee Marilyn Prodromos. Also present: Village Manager Robert Bahan, Assistant to the Village Manager Megan Pierce, Village Attorney Peter M. Friedman, Public Works Director Steve Saunders, Director of Community Development Mike D'Onofrio, and approximately 7 persons in the audience.
- 2) Pledge of Allegiance. President Greable led the group in the Pledge of Allegiance.
- 3) Quorum.
  - a) September 1, 2015 Regular Meeting. All of the Council members present indicated that they expected to attend.
  - b) September 8, 2015 Study Session. All of the Council members present indicated that they expected to attend.
  - c) September 15, 2015 Regular Meeting. All of the Council members present indicated that they expected to attend.
- 4) Approval of the Agenda. Trustee Fessler, seconded by Trustee Myers, moved to approve the Agenda. By voice vote, the motion carried.
- 5) Consent Agenda
  - a) Village Council Minutes.
    - i) August 4, 2015 Regular Meeting.
  - b) Warrant List. Approving the Warrant List dated July 31 – August 13, 2015, in the amount of \$3,235,536.22.
  - c) Change Order for Secondary Cable, Wesco. An authorization for a \$38,171 change order for the purchase of secondary cable.
  - d) Village Green Flag Request. Approval of a request to plant American flags on the Village Green in remembrance of those lost in the 9/11 attacks.

Trustee Fessler, seconded by Trustee McCrary, moved to approve the foregoing items on the Consent Agenda by omnibus vote. By roll call vote, the motion carried. Ayes: Trustees Cripe, Fessler, Krucks, McCrary, and Myers. Nays: None. Absent: Trustee Prodromos.

- 6) Stormwater Monthly Summary Report. Mr. Saunders reported that the Northwest Winnetka project is nearly finished; Tower Road has been re-opened, and work on the lateral sewers is being finished. Expected final completion for this project is October 31. Mr. Saunders said a report on the cost estimate for the STADI project will be reviewed with the Council in September. Also expected in September: a recommendation for a consultant to review non-tunnel options for addressing the serious drainage issues in western and southwestern Winnetka.

Mr. Saunders explained that he had included information on additional water quality testing in the agenda materials; however it makes sense to pair the discussion of an expanded water quality monitoring program with the review of the results of the cost validation study for the STADI project. He noted that the Village will research grant opportunities to fund a more general water sampling program aimed at improving the water quality at existing outlets to both Lake Michigan and the Skokie River.

Finally, Mr. Saunders noted that the sanitary sewer lining, manhole rehabilitation projects, and the Ash Street Pump Station upgrades are all complete.

The Council asked a few questions, after which Trustee Fessler thanked Mr. Saunders for overseeing the progress and completion of so many projects this summer.

7) Ordinances and Resolutions.

- a) Ordinance No. M-16-2015: Request for Village to Vacate Alley Right-of-Way Adjacent to 319 Fairview Avenue – Introduction. Mr. D’Onofrio reviewed this request, which was also discussed at the July 7 Council Meeting, to vacate a portion of an alley bordering the Subject Property.

There being no questions or comments, Trustee Krucks, seconded by Trustee McCrary, moved to introduce Ordinance No. M-16-2015. By voice vote, the motion carried.

- b) Ordinance No. M-17-2015: Special Use Permit for Yoga and Fitness Studio in C-2 Retail Overlay District, 549 Lincoln Avenue – Introduction. Mr. D’Onofrio described this request for a special use permit to allow a boutique fitness studio in the C2 Overlay. The applicant plans to offer fitness classes and sell high quality fitness apparel and accessories, with class times slated around the Metra schedule, to accommodate commuters and reduce the studio’s parking impact. The request was approved unanimously by the Plan Commission in July.

Mr. D’Onofrio noted that this is the first special use application to be processed since the Council revised the Zoning Ordinance to streamline the process, and estimated that the approval process was reduced by approximately five weeks.

Responding to a question about how the Village would ensure that retail items are placed in the windows as indicated in the application, Mr. D’Onofrio explained the applicant is required to comply with the submitted plan, or else apply for an expansion of the special use permit.

Trustee Fessler commented that the applicants’ presentation for the Plan Commission was well done and thorough, and the retail component is especially pleasing.

Trustee Krucks, seconded by Trustee Cripe, moved to introduce Ordinance No. M-17-2015. By voice vote, the motion carried.

8) Public Comment.

Phil Hoza, 605 Cherry Street. Mr. Hoza said he attended the meeting as a representative of the New Trier VFW to express support of 9/11 flag request, and he also thanked the Village for its support of Memorial and Veterans Day activities.

Trustee Myers suggested the Council slate future zoning variation ordinances as both introduction/adoption if they have unanimous recommendation from the advisory body, so the Council has discretion to waive introduction. Trustee Krucks agreed with the suggestion. Attorney Friedman explained that the Council may waive introduction and adopt an Ordinance at the same meeting as long as the Agenda provides the proper notice to the public.

9) Old Business. None.

10) New Business. None.

11) Appointments. None.

12) Reports.

a) Village President. None.

b) Trustees.

i) Trustee Myers reported on the last Environmental & Forestry Commission meeting.

c) Attorney. None.

d) Manager. None.

13) Executive Session. None.

14) Adjournment. Trustee Fessler, seconded by Trustee Myers, moved to adjourn the meeting. By voice vote, the motion carried. The meeting adjourned at 7:41 p.m.

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Deputy Clerk



## Agenda Item Executive Summary

**Title:** Approval of Warrant List Dated August 14 - 27, 2015

**Presenter:** Robert M. Bahan, Village Manager

**Agenda Date:**

09/01/2015

**Consent:**

YES

NO

Ordinance

Resolution

Bid Authorization/Award

Policy Direction

Informational Only

**Item History:**

None.

**Executive Summary:**

The Warrant List dated August 14 - 17, 2015 was emailed to each Village Council member.

**Recommendation:**

Consider approving the Warrant List dated August 14 - 17, 2015.

**Attachments:**

None.



## Agenda Item Executive Summary

**Title:** Ordinance No. M-16-2015: Request for Village to Vacate Alley Right-of-Way Adjacent to 319 Fairview Avenue (Adoption)

**Presenter:** Mike D'Onofrio, Director of Community Development

**Agenda Date:** 09/01/2015

Ordinance

Resolution

Bid Authorization/Award

Policy Direction

Informational Only

**Consent:**  YES  NO

### Item History:

On July 7, 2015 the Village Council gave favorable policy direction on the requested sale of a portion of an unused alley (see July 7, 2015 Agenda Packet pp. 185-215).

Ordinance No. M-16-2015 was introduced at the August 18, 2015 Village Council meeting (see August 18, 2015 Agenda Packet pp. 36-46).

### Executive Summary:

The owners of 319 Fairview Avenue have expressed interest in acquiring a portion of an unused alley adjacent to their rear lot line. The area in question measures 10' x 50', measured to the centerline of the unimproved alley.

The alley in question has never been improved with pavement, and all homes on the block have been developed with front driveways rather than use the alley in question. As a result, the Village has previously sold portions of the same alley to four (4) nearby property owners, between 1997 and 2001.

Prior sales have been subject to (a) payment of established fair market value for the land, (b) provision of utility easements for existing and future Village utilities, and (c) payment of other fees such as appraisal, document preparation and recording fees. Specific to this request, an appraisal of the property conducted by Realvaluation Services, established a market value of \$16,500. Additionally, other expenses associated with the vacation total \$2,750 and include document preparation (ordinance, plats of vacation and consolidation) and recording fees. Combined the remuneration which the Village would receive for vacation of the 500 s.f. of the unimproved alley would be \$19,250.

### Recommendation:

Consider adoption of Ordinance No. M-16-2015, authorizing staff to execute and record the Plat of Vacation and Plat of Consolidation subject to receipt of payment totaling \$19,250.

### Attachments:

- 1) Agenda Report
- 2) Attachment A: Ordinance No. M-16-2015

## AGENDA REPORT

**SUBJECT:** Ordinance M-16-2015: Vacating and sale of public alley, 319 Fairview Avenue

**PREPARED BY:** Brian Norkus, Assistant Director of Community Development

**DATE:** August 25, 2015

**REF:** July 7, 2015 Council mtg. pp: 185 – 215  
August 18, 2015 Council mtg. pp. 36-46

The owners of 319 Fairview Avenue have expressed interest in acquiring a 10' x 50' area of an unimproved, unused alley adjacent to their rear lot line. The Village has previously approved the vacation and sale of similarly configured alley areas in four (4) prior instances on the same block.

On July 7, 2015 the Village Council gave favorable policy direction on the requested sale, authorizing staff to prepare documents for the sale of the property at the appraised value of \$16,500. Additional fees totaling \$2,750 are to be paid by the purchaser, including the full cost of property appraisal, preparation of plats, recording fees, and Ordinance preparation.

Ordinance M-16-2015 (Attachment A) grants final approval of the sale, and authorizes the Village President to execute the Plat of Vacation and Plat of Consolidation. Upon receipt of funds in the amount of \$19,250, the plats will be executed and filed by the Village with the Cook County Recorder of Deeds.

The Plat of Consolidation grants an easement to the Village for public utilities across the east five (5) feet of the consolidated lot, as required by the Village Water and Electric Department. Both plats have been reviewed and approved by all appropriate Village Departments.

### **Recommendation**

Consider adoption of Ordinance M-16-2015, authorizing staff to execute and record the Plat of Vacation and Plat of Consolidation subject to receipt of payment totaling \$19,250.

### **Attachments**

Attachment A – Ordinance M-16-2015

# ATTACHMENT A

ORDINANCE NO. M-16-2015

**AN ORDINANCE VACATING A PORTION OF PUBLIC ALLEY RIGHT-OF-WAY  
AND APPROVING A PLAT OF CONSOLIDATION  
(319 Fairview Avenue)**

**WHEREAS**, the Village is a home rule municipality in accordance with Article VII, Section 6 of the Constitution of the State of Illinois of 1970 and has the authority to exercise any power and perform any function pertaining to its government and affairs; and

**WHEREAS**, the Village has the power to vacate alleys pursuant to Section 11-91-1 of the Illinois Municipal Code, 65 ILCS 5/11-91-1, and its home rule powers; and

**WHEREAS**, the Village owns the unimproved public alley right-of-way generally located between and parallel to Fairview Avenue and Woodland Avenue and between and perpendicular to Willow Road and Hawthorn Lane in the Village ("**Right-of-Way**"); and

**WHEREAS**, Wesley Ward and Laura Kenneally (collectively, "**Receiving Property Owners**") are the record owners of the property commonly known as 319 Fairview Avenue in the Village and legally described in **Exhibit A** attached to and, by this reference, made a part of this Ordinance ("**Receiving Property**"); and

**WHEREAS**, the Receiving Property Owners have requested: (i) the vacation of a portion of the Right-of-Way located adjacent to, and to the east of, the Receiving Property ("**Vacated Parcel**"), which Vacated Parcel is legally described in, and depicted on, the Plat of Vacation prepared by Thomas R. Krohn, consisting of one sheet, and dated July 29, 2015, a copy of which is attached to and, by this reference, made a part of this Ordinance as **Exhibit B** ("**Plat of Vacation**"); and (ii) the consolidation of the Vacated Parcel into the Receiving Property; and

**WHEREAS**, the subdivision and consolidation procedures set forth in Section 16.08.010 of the Village Code of the Village of Winnetka do not apply to the voluntary consolidation of property located in any single-family zoning district of the Village; and

**WHEREAS**, the Receiving Parcel and the Vacated Parcel are located in the R-5 Single-Family Residential District of the Village; and

**WHEREAS**, the Village Council has determined that it is in the best interest of the Village and its residents to vacate the Vacated Parcel and to consolidate the Vacated Parcel into the Receiving Property;

**NOW, THEREFORE**, the Council of the Village of Winnetka do ordain as follows:

**SECTION 1: RECITALS.** The foregoing recitals are hereby incorporated as the findings of the Village Council as if fully set forth in this Section.

**SECTION 2: DETERMINATION OF PUBLIC BENEFIT.** The Village Council hereby finds and determines that the Village's continued ownership of the Vacated Parcel does not benefit the public and is no longer necessary or useful to, or in the best interests of, the Village.

**SECTION 3: CERTIFICATION.** The Village Council hereby certifies that the Vacated Parcel is located entirely within the corporate limits and is subject to the jurisdiction of the Village of Winnetka.

**SECTION 4: VACATION.** Subject to and contingent upon the satisfaction of the condition set forth in Section 5 of this Ordinance, the Village Council hereby approves the vacation of the Vacated Parcel in accordance with the following provisions:

A. **Approval of Plat of Vacation.** The Plat of Vacation is approved in substantially the form attached to this Ordinance as Exhibit B and in a final form approved by the Village Attorney.

B. **Authorization.** The Village President, Village Engineer, and Village Collector are authorized and directed to execute, and the Village Clerk is authorized and directed to attest, on behalf of the Village, the final Plat of Vacation.

C. **Approval of Vacation.** The Vacated Parcel will be vacated and closed to public use, and title to the Vacated Parcel will be transferred to the Receiving Property Owners, upon the effective date of this Ordinance.

**SECTION 5: CONDITION OF VACATION.** The vacation of the Vacated Parcel provided for in Section 4 of this Ordinance is subject to and contingent upon payment by the Receiving Property Owners to the Village of the amount of \$19,250.00, which amount is equal to the costs and expenses incurred by the Village related to the vacation of the Vacated Parcel, including, without limitation, compensation in an amount equal to the fair market value of the Vacated Parcel.

**SECTION 6: CONSOLIDATION.** Subject to and contingent upon the vacation of the Vacated Parcel pursuant to, and in accordance with, Sections 4 and 5 of this Ordinance, the Village Council hereby approves the consolidation of the Vacated Parcel into the Receiving Property in accordance with the following provisions:

A. **Approval of Plat of Consolidation.** The Final Plat of Ward Consolidation prepared by Thomas R. Krohn, consisting of one sheet, and dated July 29, 2015, is hereby approved in substantially the form attached to and, by this reference, made a part of this Ordinance as **Exhibit C** ("**Plat of Consolidation**") and in a final form approved by the Village Attorney.

B. **Authorization.** The Village President, Village Water and Electric Director, Village Community Development Director, Village Engineer, and Village Collector are authorized and directed to execute, and the Village Clerk is authorized to attest, on behalf of the

Village, the final Plat of Consolidation, subject to certification by the Office of the Cook County Clerk that there are no property tax delinquencies related to the Receiving Property, as well as all other certifications that are necessary.

C. Approval of Consolidation. The Vacated Parcel will be consolidated into the Receiving Property upon the effective date of this Ordinance.

**SECTION 7: EASEMENTS RESERVED.** Perpetual easements are hereby reserved for public and municipal utility purposes, including, without limitation, water, sanitary sewer, storm sewer, electric, natural gas, cable television, and telephone, and including the right to survey, construct, operate, use, maintain, own, test, inspect, repair, renew, alter, remove, replace, or abandon in place: (a) such public and municipal utilities and appurtenances thereto across, through, and under the Vacated Parcel as are existing as of the effective date of this Ordinance; and (b) such public and municipal utilities and appurtenances thereto that may be constructed or installed after the effective date of this Ordinance across, through, and under the east five feet of the Vacated Parcel, as depicted on the Plat of Dedication; provided, however, that no public utility may exercise its rights under this reservation of easement rights without the prior written consent of the Village Engineer.

**SECTION 8: RECORDATION.** After satisfaction of all of the conditions and requirements set forth in Sections 1 through 7 of this Ordinance, the Village Manager is authorized and directed to cause a certified copy of this Ordinance, together with the executed Plat of Vacation and Plat of Dedication, to be recorded with the Cook County Recorder of Deeds.

**SECTION 9: EFFECTIVE DATE.**

A. This Ordinance shall take effect only after the occurrence of each and all of the following conditions:

1. The passage and approval of this Ordinance by the affirmative vote of three-fourths of the Village Trustees now holding office;
2. The satisfaction of the condition of vacation set forth in Section 5 of this Ordinance;
3. Publication of this Ordinance in pamphlet form in the manner required by law; and
4. The recordation of this Ordinance together with the executed Plat of Vacation and Plat of Dedication with the office of the Cook County Recorder of Deeds

B. In the event that the Receiving Property Owners do not comply with the condition of vacation set forth in Section 5 of this Ordinance within 60 days after the date of passage of this Ordinance by the Village Council, the Village Council shall have the right, in its sole discretion, to declare this Ordinance null and void and of no force and effect.

**PASSED** this \_\_\_\_ day of \_\_\_\_\_, 2015, pursuant to the following roll call vote:

AYES: \_\_\_\_\_

NAYS: \_\_\_\_\_

ABSENT: \_\_\_\_\_

**APPROVED** this \_\_\_\_ day of \_\_\_\_\_, 2015.

Signed:

\_\_\_\_\_  
Village President

Countersigned:

\_\_\_\_\_  
Village Clerk

Published by authority of the  
President and Board of Trustees  
of the Village of Winnetka,  
Illinois, this \_\_\_\_ day of \_\_\_\_\_,  
2015.

Introduced: August 18, 2015

Passed and Approved: \_\_\_\_\_, 2015

**EXHIBIT A**

**LEGAL DESCRIPTION OF RECEIVING PROPERTY**

Lot 14 in Block 3 in Dale's Addition to the Village of Winnetka, said Addition being a subdivision of the North 7.50 chains of the Southeast Fractional Quarter of Section 21, Township 42 North, Range 13, East of the Third Principal Meridian, in Cook County, Illinois.

Commonly known as: 319 Fairview Avenue, Winnetka, Illinois.

**EXHIBIT B**  
**PLAT OF VACATION**

**(SEE ATTACHED EXHIBIT B)**

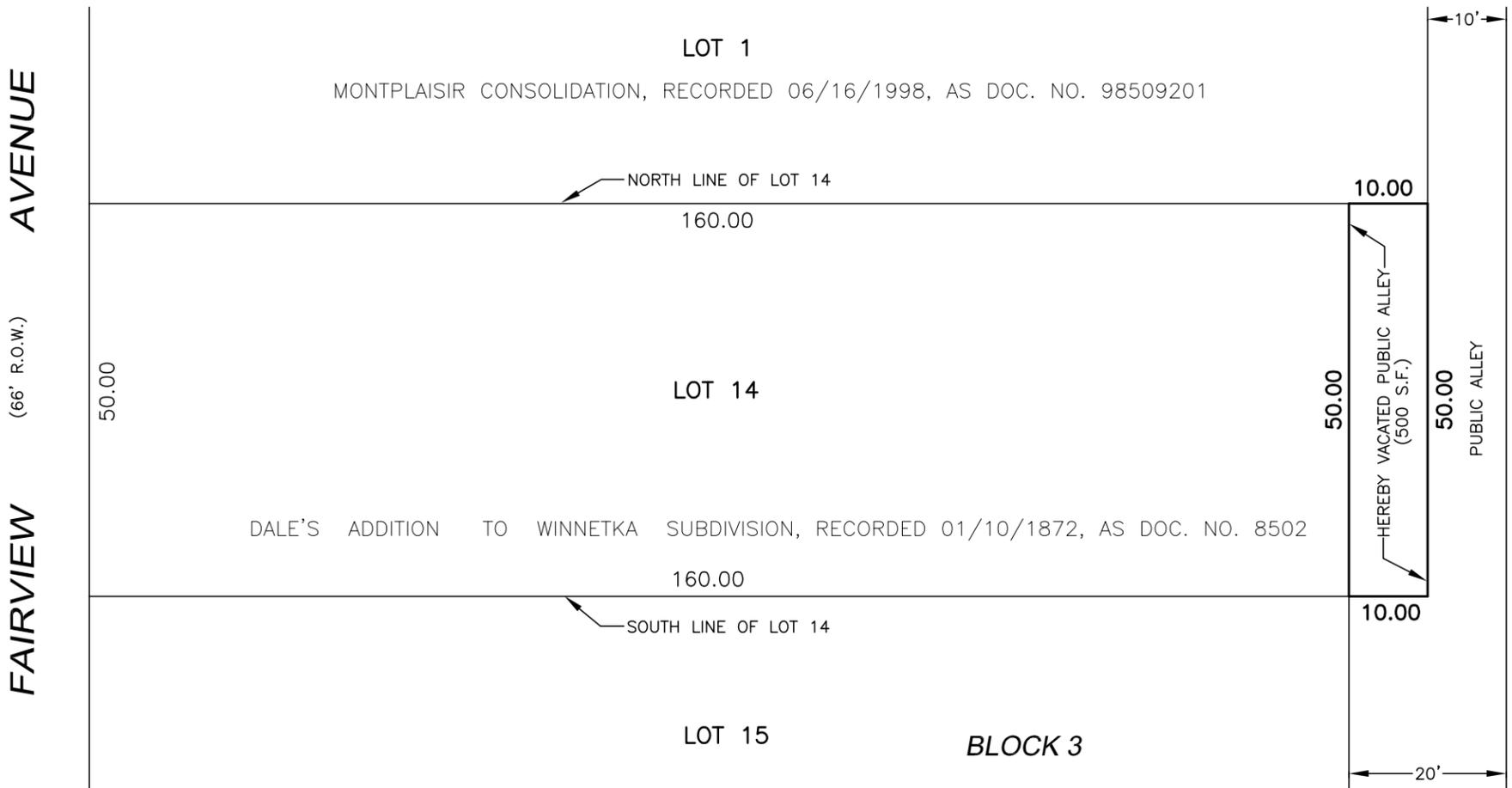
EXHIBIT B

PLAT OF VACATION  
OF

THE WEST HALF OF THE 20 FEET PUBLIC ALLEY LYING SOUTH OF THE NORTH LINE EXTENDED EAST AND NORTH OF THE SOUTH LINE EXTENDED EAST OF LOT 14 IN BLOCK 3 IN DALE'S ADDITION TO WINNETKA, A SUBDIVISION OF THE NORTH 7.50 CHAINS OF THE SOUTHEAST FRACTIONAL QUARTER OF SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.



SCALE: 1 INCH = 20 FEET



This plat submitted for recording by:  
 Name: VILLAGE OF WINNETKA  
 Address: 510 GREEN BAY ROAD  
 City: WINNETKA  
 State: ILLINOIS Zip 60093

STATE OF ILLINOIS  
 COUNTY OF COOK SS

APPROVED AND ACCEPTED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF WINNETKA, ILLINOIS,  
 AT A MEETING HELD ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, A.D., 20\_\_\_\_.

BY: \_\_\_\_\_  
 VILLAGE PRESIDENT

ATTEST: \_\_\_\_\_  
 VILLAGE CLERK

STATE OF ILLINOIS  
 COUNTY OF COOK SS

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_ BY THE VILLAGE ENGINEER OF THE VILLAGE  
 OF WINNETKA, COOK COUNTY, ILLINOIS.

BY: \_\_\_\_\_  
 VILLAGE ENGINEER

STATE OF ILLINOIS  
 COUNTY OF COOK SS

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_ BY THE VILLAGE COLLECTOR OF THE VILLAGE  
 OF WINNETKA, COOK COUNTY, ILLINOIS.

BY: \_\_\_\_\_  
 VILLAGE COLLECTOR



STATE OF ILLINOIS  
 COUNTY OF COOK SS

GEODETIC SURVEY, LTD., AN ILLINOIS LAND SURVEYING CORPORATION, DO HEREBY CERTIFY THAT WE HAVE PREPARED THIS PLAT OF VACATION IN ACCORDANCE WITH OFFICIAL RECORDS AND THAT SAID VACATION IS CORRECTLY REPRESENTED HEREON.

DATED THIS 29th DAY OF JULY, 2015.

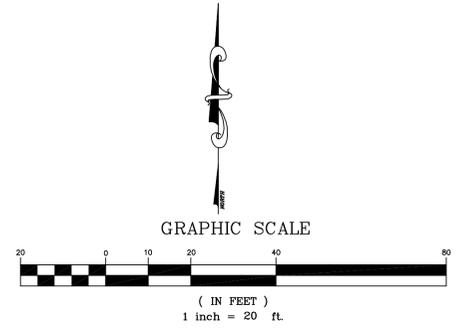
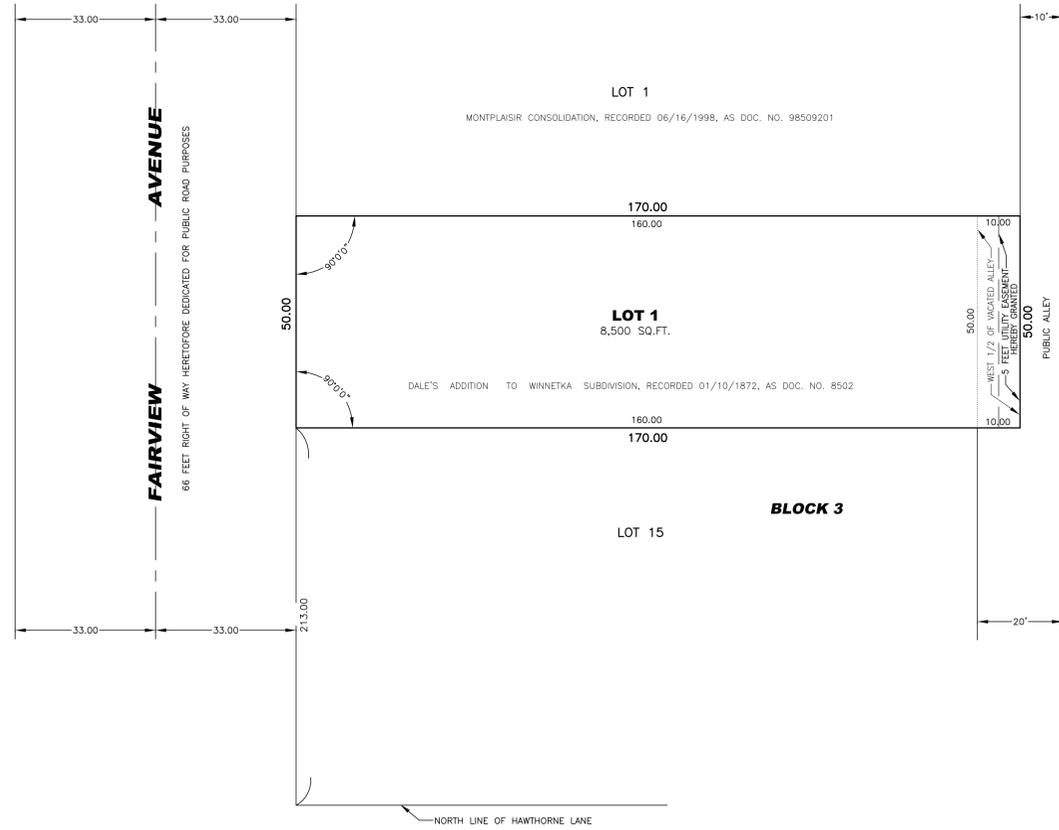
BY: Thomas R. Krohn  
 PROFESSIONAL ILLINOIS LAND SURVEYOR NO.3000  
 LICENSE EXPIRES 11/30/2016

**EXHIBIT C**  
**PLAT OF CONSOLIDATION**

**(SEE ATTACHED EXHIBIT C)**

# FINAL PLAT OF WARD CONSOLIDATION

OF LOT 14 AND THE WEST HALF OF THE VACATED ALLEY LYING EAST OF AND ADJACENT TO SAID LOT 14 IN BLOCK 3 IN DALE'S ADDITION TO WINNETKA, A SUBDIVISION OF THE NORTH 7.50 CHAINS OF THE SOUTHEAST FRACTIONAL QUARTER OF SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.



This plat submitted for recording by:  
 Name: VILLAGE OF WINNETKA  
 Address: 510 GREEN BAY ROAD  
 City: WINNETKA  
 State: ILLINOIS Zip 60093

PERMANENT INDEX NUMBER: 05-21-401-009-0000

TAX BILL RECIPIENT:  
 WESLEY WARD & LAURA KENNEALLY  
 319 FAIRVIEW AVENUE  
 WINNETKA, ILLINOIS 60093

**OWNER'S CERTIFICATE:**

State of Illinois }  
 County of Cook } s.s.

We, Wesley Ward & Laura Kenneally, do hereby certify that we are the owners of the property described hereon and that we have caused the said property to be surveyed and resubdivided as shown hereon as the Ward Consolidation and legally described on the plat of the same name.

Dated this \_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_.

\_\_\_\_\_  
 Owner's Signature

\_\_\_\_\_  
 Owner's Signature

**NOTARY CERTIFICATE:**

State of Illinois }  
 County of Cook } s.s.

I, \_\_\_\_\_ a Notary Public in and for said County in the State

aforsaid do hereby certify that \_\_\_\_\_ personally known to me to be the same persons whose names are subscribed to the foregoing instrument as owners of the property described hereon, appeared before me this day in person and acknowledged that they signed and delivered this plat as their own free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this \_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_.

\_\_\_\_\_  
 Notary Public

**MORTGAGE CERTIFICATE:**

State of \_\_\_\_\_ }  
 County of \_\_\_\_\_ } s.s.

U.S. Bank Home Mortgage  
 P.O. Box 21948  
 Eagan, MN 55121

This is to certify that \_\_\_\_\_ U.S. Bank Home Mortgage as mortgagee under the provisions of that certain mortgage and assignments of rents dated \_\_\_\_\_ recorded in the public records of \_\_\_\_\_ County, \_\_\_\_\_ on \_\_\_\_\_ as Document No. \_\_\_\_\_ is the mortgage of the property described on the plat of subdivision and does hereby consent to and acknowledge and adopt said plat.

Dated this \_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_.

By: \_\_\_\_\_  
 (Vice) President

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

**NOTARY CERTIFICATE:**

State of \_\_\_\_\_ }  
 County of \_\_\_\_\_ } s.s.

I, \_\_\_\_\_ a Notary Public in and for said County in the State

aforsaid do hereby certify that \_\_\_\_\_ personally known to me to be the same persons whose names are subscribed to the foregoing instrument as owners of the property described hereon, appeared before me this day in person and acknowledged that they signed and delivered this plat as their own free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this \_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_.

\_\_\_\_\_  
 Notary Public

**MORTGAGE CERTIFICATE:**

State of \_\_\_\_\_ }  
 County of \_\_\_\_\_ } s.s.

TCF National Bank  
 101 E. 5th Street, Suite 101  
 St. Paul, MN 55101

This is to certify that \_\_\_\_\_ TCF National Bank as mortgagee under the provisions of that certain mortgage and assignments of rents dated \_\_\_\_\_ recorded in the public records of \_\_\_\_\_ County, \_\_\_\_\_ on \_\_\_\_\_ as Document No. \_\_\_\_\_ is the mortgage of the property described on the plat of subdivision and does hereby consent to and acknowledge and adopt said plat.

Dated this \_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_.

By: \_\_\_\_\_  
 (Vice) President

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

**NOTARY CERTIFICATE:**

State of \_\_\_\_\_ }  
 County of \_\_\_\_\_ } s.s.

I, \_\_\_\_\_ a Notary Public in and for said County in the State

aforsaid do hereby certify that \_\_\_\_\_ personally known to me to be the same persons whose names are subscribed to the foregoing instrument as owners of the property described hereon, appeared before me this day in person and acknowledged that they signed and delivered this plat as their own free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this \_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_.

\_\_\_\_\_  
 Notary Public

**SURVEYOR'S CERTIFICATE:**

State of Illinois }  
 County of Cook } s.s.

I, Thomas R. Krohn an Illinois licensed land surveyor do hereby certify that I have surveyed and subdivided the following described property: LOT 14 AND THE WEST HALF OF THE VACATED ALLEY LYING EAST OF AND ADJACENT TO SAID LOT 14 IN BLOCK 3 IN DALE'S ADDITION TO WINNETKA, A SUBDIVISION OF THE NORTH 7.50 CHAINS OF THE SOUTHEAST FRACTIONAL QUARTER OF SECTION 21, TOWNSHIP 42 NORTH, RANGE 13, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

All dimension are in feet and decimal parts thereof. I further certify that the property shown hereon is identified as Zone "X" (Unshaded), areas determined to be outside the 0.2% annual chance floodplain and is not situated in a special flood hazard area, by the Federal Emergency Management Agency, as per The Flood Insurance Rate Map, Village of Winnetka Community Number 170176, Map 233 of 832, Panel No. 17031C0251 J, effective date August 19, 2008.

I further certify that the property shown hereon is situated within the corporate limits of the Village of Winnetka, Illinois.

Dated this 29th day of July, 2015.

\_\_\_\_\_  
 Thomas R. Krohn  
 Illinois Licensed Land Surveyor No. 3000



State of Illinois  
 County of Cook SS

Approved this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by the VILLAGE PRESIDENT AND BOARD OF TRUSTEES of the Village of Winnetka, Cook County, Illinois.

\_\_\_\_\_  
 Village President

\_\_\_\_\_  
 Village Clerk

State of Illinois  
 County of Cook SS

Approved this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by the DIRECTOR OF THE WATER AND ELECTRIC DEPARTMENT of the Village of Winnetka, Cook County, Illinois.

\_\_\_\_\_  
 Water and Electric Director

State of Illinois  
 County of Cook SS

Approved this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by the DIRECTOR OF THE COMMUNITY DEVELOPMENT DEPARTMENT of the Village of Winnetka, Cook County, Illinois.

\_\_\_\_\_  
 Community Development Director

State of Illinois  
 County of Cook SS

Approved this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by the VILLAGE ENGINEER of the Village of Winnetka, Cook County, Illinois.

\_\_\_\_\_  
 Village Engineer

State of Illinois  
 County of Cook SS

I, \_\_\_\_\_ Village Collector of the Village of Winnetka, Illinois, do hereby certify that there are no delinquent or unpaid current or forfeited special assessments, or any deferred installments thereon that have been apportioned against the tract of land included in this plat of consolidation

Dated this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
 Village Collector

**GEODETIC SURVEY, LTD.**  
 PROFESSIONAL DESIGN FIRM NO. 184-003942  
 1121 DEPOT STREET, GLENVIEW IL 60025  
 TEL. (847) 904-7690; FAX (847) 904-7691

REVISIONS	DATE

FILE NO. 15-255  
 DATE: 07/29/2015



## Agenda Item Executive Summary

**Title:** Ordinance No. M-17-2015: Special Use Permit for Yoga and Fitness Studio in C-2 Retail Overlay District, 549 Lincoln Avenue (Adoption)

**Presenter:** Michael D'Onofrio, Director of Community Development

**Agenda Date:** 09/01/2015

- Ordinance
- Resolution
- Bid Authorization/Award
- Policy Direction
- Informational Only

**Consent:**  YES  NO

### Item History:

Ordinance No. M-17-2015 was introduced at the August 18, 2015 Village Council meeting (see August 18, 2015 Agenda Packet, pp. 47-98).

### Executive Summary:

The petitioners, Joann Noche and Jessica Gonzales (d/b/a Yogi Barre LLC), applied for a Special Use Permit for a boutique fitness studio at 549 Lincoln Ave. Under the C-2 General Retail Commercial Zoning District, the proposed use is permitted as a "Health Club" for its similarity to that permitted use. Health Clubs, and by extension the proposed use, are subject to review and approval under the Village's Special Use Permit process.

Yogi Barre would include in-store classes together with the retail sale of fitness apparel and accessories. The facility would be open from 6:45 AM to 8:45 PM on weekdays and between 9:15 AM and 12:00 PM on weekends. The petitioners anticipate that there would be an average of eight students per class, and classes are an average of 50 minutes long. The petitioners indicate that they have built their class schedule to accommodate Metra commuters, and hope that a significant number of their clients will be walking from the train station, rather than driving. Class offerings would include instruction in yoga, barre and aerial fitness. In addition to classes, fitness apparel and accessories will be available for sale. These retail offerings would be located at the front of the store.

On site parking is not available at this location; however there is a public parking lot north of the site on Lincoln Ave. in addition to the on-street parking. KLOA conducted a parking study as part of the application and concluded that there would be minimal impact on parking due to the small class size and peak hours of operation. Village Engineer Saunders has reviewed the KLOA study and agrees with its conclusion.

In April 2015, the Village Council adopted Ordinance MC-3-2015, which amended the Village Zoning Code to streamline the zoning approval process for Special Use Permits within C2 Retail Overlay District. Under revised procedures, such requests no longer require an appearance before both the ZBA and Plan Commission, with such requests resting solely with the Plan Commission.

On July 22, 2015, the Plan Commission voted unanimously to find the application consistent with the eleven (11) standards for approval of such uses. The Plan Commission found it noteworthy that the applicant proposes a significant line of retail apparel and related accessories consistent with the intent of the retail overlay district.

### Recommendation:

Consider adoption of Ordinance No. M-17-2015, granting a Special Use Permit for Yogi Barre to locate within the C2 Retail Overlay District at 549 Lincoln Avenue.

### Attachments:

- 1) Agenda Report
- 2) Attachment A: Ordinance No. M-17-2015

## AGENDA REPORT

SUBJECT: Ordinance M-17-2015: Special Use Permit for yoga and fitness studio to be located within C-2 Retail Overlay District, 549 Lincoln Avenue

PREPARED BY: Brian Norkus, Assistant Director of Community Development

DATE: August 25, 2015

REF: August 18, 2015 Council Mtg. pp. 47-98

Ordinance M-17-2015 grants a Special Use Permit to allow the establishment of a yoga and fitness studio within the C-2 Retail Overlay District at 549 Lincoln Avenue.

The application describes the proposed use as a boutique fitness studio that conducts in-store classes together with the sale of fitness apparel and accessories. Under the *C-2 General Retail Commercial Zoning District*, the proposed use is permitted as a “Health Club” for its similarity to that permitted use. Health Clubs, and by extension the proposed use, are subject to review and approval under the Village’s Special Use Permit process.

As described in the petitioner’s application, the studio will be open from 6:30 AM to 8:45 PM on weekdays and between 9:15 AM and 12:00 PM on weekends. The petitioner anticipates that there would be an average of 8 students per class, and classes are an average of 50 minutes long. The petitioner indicates that they have built their class schedule to accommodate Metra commuters, and hope that a significant number of their class clients will be walking in from the train station, rather than driving and using up parking in the district.

In addition to classes, the facility would sell high quality fitness apparel and accessories and will offer in-store group fitness classes with instruction in yoga, barre and aerial fitness. Retail offerings would be located in proximity to the retail storefront window.

On-site parking is not available at this location; however, there is a public parking lot north of the site on Lincoln Ave in addition to the on-street spaces.

The applicants have supplied a parking study, which concludes that there will be a minimal impact on parking due to the small class size and peak hours of operation. Village Engineer Steve Saunders has reviewed the parking study and agrees with its conclusions.

### **Recommendation of Advisory Board**

In April 2015 the Village Council adopted Ordinance MC-3-2015, which amended the Village Zoning Code to streamline the zoning approval process for Special Use Permits within the C2 Retail Overlay District. Under revised procedures, such requests no longer require an appearance before both the ZBA and Plan Commission, with such requests resting solely with the Plan Commission.

On July 22, 2015, the Plan Commission voted unanimously to find the application consistent with the eleven (11) standards for approval of such uses. The Plan Commission found it noteworthy that the applicant proposes a significant line of retail apparel and related accessories consistent with the intent of the retail overlay district.

**Village Council Action**

Introduction of Ordinance M-17-2015 was approved by the Village Council at the August 18, 2015 meeting.

**Recommendation:**

Consider adoption of Ordinance M-17-2015 granting a Special Use Permit for Yogi Barre to locate within the C2 Retail Overlay District at 549 Lincoln Avenue.

**Attachments**

Attachment A: Ordinance M-17-2015

# ATTACHMENT A

ORDINANCE NO. M-17-2015

**AN ORDINANCE GRANTING A SPECIAL USE PERMIT  
FOR THE OPERATION OF A YOGA AND FITNESS STUDIO  
WITHIN THE C-2 RETAIL OVERLAY DISTRICT OF THE VILLAGE  
(549 Lincoln Avenue)**

**WHEREAS**, Yogi Barre, LLC ("*Applicant*"), is the lessee of the property commonly known as 549 Lincoln Avenue, Winnetka, Illinois, and legally described in **Exhibit A** attached to and, by this reference, made a part of this Ordinance ("*Subject Property*"); and

**WHEREAS**, Winnetka III, LLC ("*Owner*"), is the record title owner of the Subject Property; and

**WHEREAS**, the Subject Property is located within the C-2 General Retail Commercial District and the C-2 Retail Overlay District of the Village (collectively, "*C-2 Retail Overlay District*"); and

**WHEREAS**, the Applicant desires to operate a yoga and fitness studio at the Subject Property; and

**WHEREAS**, pursuant to Section 17.44.020 and the table of uses set forth in Section 17.46.010 of the Winnetka Zoning Ordinance ("*Zoning Ordinance*"), the operation of a yoga and fitness studio is not permitted within the C-2 Retail Overlay District without a special use permit; and

**WHEREAS**, on June 26, 2015, the Applicant filed an application for a special use permit pursuant to Section 17.44.020.B and Chapter 17.56 of the of the Zoning Ordinance to allow the operation of a yoga and fitness studio at the Subject Property ("*Special Use Permit*"); and

**WHEREAS**, the Owner of the Subject Property has consented to the application for the Special Use Permit filed by the Applicant; and

**WHEREAS**, on July 22, 2015, after due notice thereof, the Plan Commission conducted a public hearing on the proposed Special Use Permit and, by the unanimous vote of the eight members then present, recommended that the Village Council approve the Special Use Permit; and

**WHEREAS**, the Village Council has determined that approval of the proposed Special Use Permit for the operation of a yoga and fitness studio at the Subject Property satisfies the standards for the approval of special use permits within the C-2 Retail Overlay District set forth in Chapter 17.56 and Section 17.44.020.B of the Zoning Ordinance and is in the best interest of the Village and its residents;

**NOW, THEREFORE**, the Council of the Village of Winnetka do ordain as follows:

**SECTION 1: RECITALS.** The foregoing recitals are hereby incorporated into this section as the findings of the Council of the Village of Winnetka, as if fully set forth herein.

**SECTION 2: SPECIAL USE PERMIT.** Subject to, and contingent upon, the terms and conditions set forth in Section 3 of this Ordinance, the Special Use Permit is hereby granted, pursuant to Chapter 17.56 and Section 17.44.020.B of the Zoning Ordinance and the home rule powers of the Village, to allow the establishment and operation of a yoga and fitness studio by the Applicant at the Subject Property within the C-2 Retail Overlay District.

**SECTION 3: CONDITIONS.** The Special Use Permit granted by Section 2 of this Ordinance is subject to, and contingent upon, compliance by the Applicant with the following conditions:

- A. Commencement of Operation. The Applicant must commence operation of the proposed yoga and fitness studio no later than 12 months after the effective date of this Ordinance.
- B. Compliance with Regulations. The development, use, and maintenance of the Subject Property must comply at all times with all applicable Village codes and ordinances, as they have been or may be amended over time.
- C. Reimbursement of Village Costs. In addition to any other costs, payments, fees, charges, contributions, or dedications required under applicable Village codes, ordinances, resolutions, rules, or regulations, the Applicant must pay to the Village, promptly upon presentation of a written demand or demands therefor, of all fees, costs, and expenses incurred or accrued in connection with the review, negotiation, preparation, consideration, and review of this Ordinance. Payment of all such fees, costs, and expenses for which demand has been made shall be made by a certified or cashier's check. Further, the Applicant must pay upon demand all costs incurred by the Village for publications and recordings required in connection with the aforesaid matters.
- D. Compliance with Plans. The development, use, and maintenance of the yoga and fitness studio at the Subject Property must be in strict accordance with the Floor Plan submitted by the Applicant, consisting of one sheet, a copy of which is attached to and, by this reference, made a part of this Ordinance as **Exhibit B**, except for minor changes and site work approved by the Director of Community Development (within his permitting authority) in accordance with all applicable Village codes, ordinances, and standards.

**SECTION 4: RECORDATION; BINDING EFFECT.** A copy of this Ordinance will be recorded with the Cook County Recorder of Deeds. This Ordinance and the privileges, obligations, and provisions contained herein inure solely to the benefit of, and are binding upon, the Applicant, the Owner, and each of their heirs, representatives, successors, and assigns.

**SECTION 5: FAILURE TO COMPLY.** Upon the failure or refusal of the Applicant or the Owner to comply with any or all of the conditions, restrictions, or provisions of this Ordinance, in addition to all other remedies available to the Village, the Special Use Permit granted in Section 2 of this Ordinance will, at the sole discretion of the Village Council, by ordinance duly adopted, be revoked and become null and void; provided, however, that the

Village Council may not so revoke the Special Use Permit granted in Section 2 of this Ordinance unless it first provides the Applicant with two months advance written notice of the reasons for revocation and an opportunity to be heard at a regular meeting of the Village Council. In the event of revocation, the development and use of the Subject Property will be governed solely by the regulations of the applicable zoning district and the applicable provisions of the Zoning Ordinance, as the same may be amended from time to time. Further, in the event of such revocation, the Village Manager and Village Attorney are hereby authorized and directed to bring such zoning enforcement action as may be appropriate under the circumstances.

**SECTION 6: AMENDMENT OF SPECIAL USE PERMIT.** Any amendments to the Special Use Permit granted in Section 2 of this Ordinance that may be requested by the Applicant after the effective date of this Ordinance may be granted only pursuant to the procedures, and subject to the standards and limitations, provided in the Zoning Ordinance.

**SECTION 7: EFFECTIVE DATE.**

A. This Ordinance will be effective only upon the occurrence of all of the following events:

1. Passage by the Village Council in the manner required by law;
2. Publication in pamphlet form in the manner required by law; and
3. The filing by the Applicant and the Owner with the Village Clerk of an Unconditional Agreement and Consent in the form of **Exhibit C** attached to and, by this reference, made a part of this Ordinance, to accept and abide by each and all of the terms, conditions, and limitations set forth in this Ordinance and to indemnify the Village for any claims that may arise in connection with the approval of this Ordinance.

B. In the event that the Applicant does not file with the Village Clerk a fully executed copy of the unconditional agreement and consent described in Section 7.A.3 of this Ordinance within 60 days after the date of passage of this Ordinance by the Village Council, the Village Council shall have the right, in its sole discretion, to declare this Ordinance null and void and of no force or effect.

[SIGNATURE PAGE FOLLOWS]

**PASSED** this \_\_\_\_ day of \_\_\_\_\_, 2015, pursuant to the following roll call vote:

**AYES:** \_\_\_\_\_

**NAYS:** \_\_\_\_\_

**ABSENT:** \_\_\_\_\_

**APPROVED** this \_\_\_\_ day of \_\_\_\_\_, 2015.

Signed:

\_\_\_\_\_  
Village President

Countersigned:

\_\_\_\_\_  
Village Clerk

Published by authority of the  
President and Board of Trustees  
of the Village of Winnetka,  
Illinois, this \_\_\_\_ day of \_\_\_\_\_,  
2015.

Introduced: August 18, 2015

Passed and Approved: \_\_\_\_\_, 2015

**EXHIBIT A**

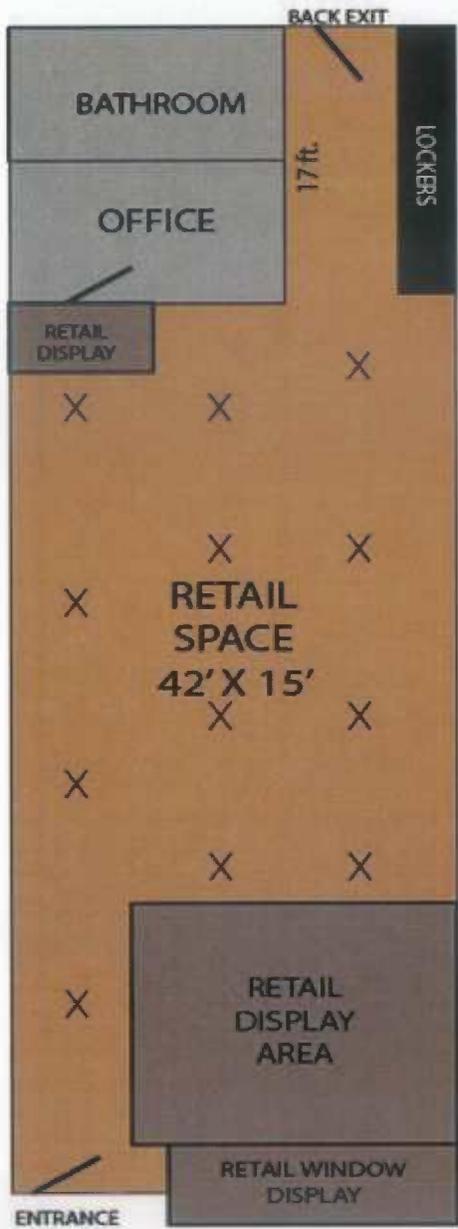
**LEGAL DESCRIPTION OF SUBJECT PROPERTY**

Lot 1 (except therefrom the east 72 feet) and Lot 2 (except therefrom the east 67 feet), and also except therefrom that part of Lot 2 aforesaid described as follows: Beginning at a point on the south line of Lot 2 aforesaid 67 feet west of the east line of said lot; thence north 30 feet; thence west 5 feet; thence south 30 feet to the south line of said lot, thence east along the south line of said lot, 5 feet to the point of beginning) in McGuire and Orr's Arbor Vitae Road Subdivision of Block 4 and that part of Block 5 lying east of the east line of Lincoln Avenue in Winnetka in Section 20, Township 42 North, Range 13, East of the Third Principal Meridian, in Cook County, Illinois.

Commonly known as 549 Lincoln Avenue, Winnetka, Illinois.

**EXHIBIT B**  
**FLOOR PLAN**  
**(SEE ATTACHED EXHIBIT B)**

# EXHIBIT B



**EXHIBIT C**

**UNCONDITIONAL AGREEMENT AND CONSENT**

TO: The Village of Winnetka, Illinois ("*Village*");

**WHEREAS**, Yogi Barre, LLC ("*Applicant*"), desires to operate a yoga and fitness studio located at 549 Lincoln Avenue in the Village ("*Subject Property*"); and

**WHEREAS**, Winnetka III, LLC ("*Owner*"), is the record title owner of the Subject Property and consents to the operation of a yoga and fitness studio by Applicant at the Subject Property; and

**WHEREAS**, Ordinance No. M-17-2015, adopted by the Village Council on \_\_\_\_\_, 2015 ("*Ordinance*"), grants a special use permit to the Applicant for the operation of a yoga and fitness studio at the Subject Property within the C-2 Retail Overlay District of the Village; and

**WHEREAS**, Section 7 of the Ordinance provides, among other things, that the Ordinance will be of no force or effect unless and until the Applicant and the Owner have filed, within 60 days following the passage of the Ordinance, their unconditional agreement and consent to accept and abide by each and all of the terms, conditions, and limitations set forth in the Ordinance;

**NOW, THEREFORE**, the Applicant and the Owner do hereby agree and covenant as follows:

1. The Applicant and the Owner do hereby unconditionally agree to accept, consent to, and abide by each and all of the terms, conditions, limitations, restrictions, and provisions of the Ordinance.

2. The Applicant and the Owner acknowledge that public notices and hearings have been properly given and held with respect to the adoption of the Ordinance, have considered the possibility of the revocation provided for in the Ordinance, and agree not to challenge any such revocation on the grounds of any procedural infirmity or a denial of any procedural right.

3. The Applicant and the Owner acknowledge and agree that the Village is not and will not be, in any way, liable for any damages or injuries that may be sustained as a result of the Village's grant of a special use permit for the Subject Property or its adoption of the Ordinance, and that the Village's approvals do not, and will not, in any way, be deemed to insure the Applicant or the Owner against damage or injury of any kind and at any time.

4. The Applicant and the Owner do hereby agree to hold harmless and indemnify the Village, the Village's corporate authorities, and all Village elected and appointed officials,

officers, employees, agents, representatives, and attorneys, from any and all claims that may, at any time, be asserted against any of such parties in connection with the Village's adoption of the Ordinance granting the special use permit for the Subject Property.

5. The Applicant and the Owner hereby agree to pay all expenses incurred by the Village in defending itself with regard to any and all of the claims mentioned in this Unconditional Agreement and Consent. These expenses will include all out-of-pocket expenses, such as attorneys' and experts' fees, and will also include the reasonable value of any services rendered by any employees of the Village.

Dated: \_\_\_\_\_, 2015

ATTEST: **YOGI BARRE, LLC**

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

ATTEST **WINNETKA III, LLC**

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



## Agenda Item Executive Summary

**Title:** Resolution No. R-26-2015: Third Amendment to a License Agreement with New Cingular Wireless PCS, LLC (Adoption)

**Presenter:** Brian Keys, Director of Water & Electric

**Agenda Date:** 09/01/2015

- Ordinance
- Resolution
- Bid Authorization/Award
- Policy Direction
- Informational Only

**Consent:**  YES  NO

### Item History:

On August 20, 1996, the Village adopted Resolution R-1345-96, a license agreement with AT&T Wireless PCS, Inc. to construct a monopole tower at the Police Station and lease antenna space on the tower and an internal room from the Village for a cellular communications site. In 2005, the wireless company changed its name to New Cingular Wireless PCS, LLC. In 2011 and 2013, New Cingular requested changes to the existing cellular site to increase the speed and capacity of their mobile telephone network. The Village Council adopted Resolutions R-29-2011 and R-29-2013 respectively, authorizing the first and second amendments to the agreement; permitting the proposed equipment changes. No changes to the existing equipment are being requested at this time. The existing agreement is scheduled to expire on August 31, 2015, and a new agreement is required.

### Executive Summary:

Village staff and New Cingular have tentatively agreed to the terms for the cellular provider to remain at the site as specified in Resolution No. R-26-2015, Third Amendment to Winnetka License Agreement. Substantive changes to the existing agreement that are contained in the proposed Third Amendment are as follows:

- The Agreement will be extended for a period of ten (10) years.
- The license fee will remain fixed for one year at \$64,775.36. For each additional year, the license fee will increase annually by 3%.
- New Cingular will have increased latitude to make changes within the leased basement room at the Police Station. The cellular provider will continue to secure building permits and meet the applicable codes.
- Changes in New Cingular's equipment that are external to the leased basement room will continue to require Village approval.

As outlined above, Village staff and New Cingular have tentatively agreed to the terms for a third amendment.

### Recommendation:

Consider adopting Resolution No. R-26-2015, approving the Third Amendment to the 1996 Cellular Antenna License Agreement between the Village of Winnetka and New Cingular Wireless, PCS, LLC substantially in the form presented in Exhibit A.

### Attachments:

- Agenda Report dated August 25, 2015
- Resolution No. R-26-2015: Third Amendment to a License Agreement with New Cingular Wireless PCS, LLC
- Exhibit A, Third Amendment to Winnetka License Agreement
  - Winnetka License Agreement dated August 20, 1996
  - First Amendment to the 1996 License Agreement between the Village of Winnetka and New Cingular Wireless
  - Second Amendment to 1996 License Agreement between the Village of Winnetka and New Cingular Wireless

## AGENDA REPORT

**SUBJECT:** Resolution R-26-2015 Third Amendment to a License Agreement with New Cingular Wireless PCS, LLC

**PREPARED BY:** Brian Keys, Director of Water & Electric

**REF.** October 4, 2011 Village Council Meeting, pp. 17-36  
October 1, 2013 Village Council Meeting, pp. 23-32

**DATE:** August 25, 2015

On August 20, 1996, the Village adopted Resolution R-1345-96, a license agreement with AT&T Wireless PCS, Inc. to construct a monopole tower at the Police Station and lease antenna space on the tower and an internal room from the Village for a cellular communications site. In 2005, the wireless company changed its name to New Cingular Wireless PCS, LLC. In 2011 and 2013, New Cingular requested changes to the existing cellular site to increase the speed and capacity of their mobile telephone network. The Village Council adopted Resolutions R-29-2011 and R-29-2013 respectively, authorizing the first and second amendments to the agreement; permitting the proposed equipment changes. No changes to the existing equipment are being requested at this time. The existing agreement is scheduled to expire on August 31, 2015, and a new agreement is required. Village staff and New Cingular have tentatively agreed to the terms for the cellular provider to remain at the site as specified in Resolution R-26-2015, *Third Amendment to Winnetka License Agreement*.

Substantive changes to the existing agreement that are contained in the proposed Third Amendment are as follows:

- The Agreement will be extended for a period of ten (10) years. After the initial ten year period, three additional automatic extension terms of five (5) years will exist. Either party may terminate the agreement with advance notice prior to the end of the term or additional extension term.
- The license fee commencing on September 1, 2015 will be \$64,775.36. This is the same rent that the New Cingular paid for the period of September 1, 2014 – August 31, 2015. The license fee will be fixed for one year. Staff rejected all of New Cingular's offers that reduced the existing license fee below the amount paid in 2015. Their initial offer was an annual license fee of \$55,000 with rent fixed through 2020. The license fee will increase annually by 3% versus 4% under the prior agreement.
- New Cingular will have increased latitude to make changes within the leased basement room at the Police Station. The cellular provider will continue to secure building permits and meet the applicable codes, but will no longer be subject to increases in the license fee for requesting such changes.

- Changes in New Cingular's equipment that are external to the leased basement room will continue to require Village approval. In each of these changes, the Village may require New Cingular to pay a one-time supplemental license fee of \$3,000 in consideration for the request to perform additional work at the site. In the present agreement, any supplemental license fee was added to the annual license fee. Under the terms of the proposed agreement, the supplemental license fee is a one-time fee for each request.

As outlined above, Village staff and New Cingular have tentatively agreed to the terms for a third amendment. The proposed license fee remains favorable when compared to a 2013 survey performed by the Northwest Municipal Conference. Of the six other communities with cellular facilities on municipal property that responded, the average annual rental was \$28,400 for a cellular site. The license fee from the Public Safety site is revenue for the General Fund.

**Recommendation:**

Consider adopting Resolution R-26-2015, approving the Third Amendment to the 1996 Cellular Antenna License Agreement between the Village of Winnetka and New Cingular Wireless, PCS, LLC substantially in the form presented in Exhibit A.

**RESOLUTION NO. R-26-2015**

**A RESOLUTION  
APPROVING A THIRD AMENDMENT TO  
A LICENSE AGREEMENT WITH NEW CINGULAR WIRELESS PCS, LLC**

**WHEREAS**, the Village of Winnetka (“*Village*”) is a home rule municipality in accordance with Article VII, Section 6 of the Constitution of the State of Illinois of 1970; and

**WHEREAS**, on August 20, 1996, the Council of the Village of Winnetka (“*Village Council*”) adopted Resolution No. R-1345-96, approving and authorizing the execution of a license agreement (“*License Agreement*”) with New Cingular Wireless PCS, LLC (“*Cingular*”); and

**WHEREAS**, August 20, 1996, the Village and Cingular entered into the License Agreement, which granted Cingular a license to install certain cellular telecommunication facilities (“*Facilities*”) at the Village’s public safety building located at 510 Green Bay Road in the Village (“*Public Safety Building*”) in exchange for a license fee paid by Cingular to the Village (“*License Fee*”); and

**WHEREAS**, on October 4, 2011, the Village Council adopted Resolution No. R-29-2011, approving and authorizing the execution of a first amendment to the License Agreement (“*First Amendment*”); and

**WHEREAS**, on November 1, 2011, the Village and Cingular entered into the First Amendment, which, among other things: (i) amended the definition of the Facilities; and (ii) increased the License Fee; and

**WHEREAS**, on October 1, 2013, the Village Council adopted Resolution No. R-29-2013 approving and authorizing the execution of a second amendment to the License Agreement (“*Second Amendment*”); and

**WHEREAS**, on October 28, 2013, the Village and Cingular entered into the Second Amendment, which, among other things: (i) further amended the definition of the Facilities; and (ii) further increased the License Fee; and

**WHEREAS**, the License Agreement will expire on August 31, 2015; and

**WHEREAS**, Cingular now desires to: (i) extend the term of the License Agreement, as amended by the First Amendment and the Second Amendment, for (a) an initial extension term of 10 years commencing on September 1, 2015, and (b) up to three, five-year renewal terms (collectively, “*Extension*”); and (ii) install certain additional Facilities (“*Additional Facilities*”) at the Public Safety Building; and

**WHEREAS**, the Village is willing to grant the Extension and to permit Cingular to install the Additional Facilities at the Public Safety Building in exchange for an annual License Fee of \$64,775.36 in the first year of the Extension, which License Fee will increase thereafter by three percent each year until the expiration of the Extension ("**Amended License Fee**"); and

**WHEREAS**, the Village and Cingular desire to enter into a third amendment to the License Agreement ("**Third Amendment**") to approve the Extension and to permit Cingular to install the Additional Facilities in exchange for the Amended License Fee; and

**WHEREAS**, the Village Council has determined that it is in the best interest of the Village to enter into the Third Amendment with Cingular;

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the Village of Winnetka, Cook County, Illinois, as follows:

**SECTION 1: RECITALS.** The Village Council hereby adopts the foregoing recitals as its findings, as if fully set forth herein.

**SECTION 2: APPROVAL OF THIRD AMENDMENT.** The Village Council hereby approves the Third Amendment in substantially the form attached to this Resolution as **Exhibit A**, and in a final form approved by the Village Attorney and Village Manager.

**SECTION 3: AUTHORIZATION TO EXECUTE THIRD AMENDMENT.** The Village Council hereby authorizes the Village President to execute, and the Village Clerk to attest, the final Third Amendment only after receipt by the Village Clerk of at least two executed copies of the final Third Amendment from Cingular; provided, however, that if the Village Clerk does not receive such executed copies of the final Third Amendment from Cingular within 60 days after the date of adoption of this Resolution, then this authority to execute and seal the final Third Amendment will, at the option of the Village Council, be null and void.

**SECTION 4: EFFECTIVE DATE.** This Resolution will be in full force and effect from and after its passage and approval according to law.

[SIGNATURE PAGE FOLLOWS]

**ADOPTED** this \_\_\_\_ day of \_\_\_\_\_, 2015, pursuant to the following roll call vote:

AYES: \_\_\_\_\_

NAYS: \_\_\_\_\_

ABSENT: \_\_\_\_\_

ABSTAIN: \_\_\_\_\_

Signed

\_\_\_\_\_  
Village President

Countersigned:

\_\_\_\_\_  
Village Clerk

**EXHIBIT A**  
**THIRD AMENDMENT**

Cell Site No.: IL1340  
Cell Site Name: WINNETKA FIRE STATION  
Fixed Asset No.: 10095256  
Market: IL / WI  
Address: 410 Green Bay Road

### THIRD AMENDMENT TO WINNETKA LICENSE AGREEMENT

THIS THIRD AMENDMENT TO WINNETKA LICENSE AGREEMENT (“**Third Amendment**”), dated as of the latter of the signature dates below (the “**Effective Date**”), is by and between the Village of Winnetka, an Illinois home rule municipality, having a mailing address of 510 Green Bay Road, Winnetka, IL 60093 (hereinafter referred to as “**Licensor**”), and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as successor in interest to AT&T Wireless PCS, Inc., having a mailing address of 575 Morosgo Drive NE, Atlanta, GA 30324 (hereinafter referred to as “**Licensee**”).

**WHEREAS**, Licensor and Licensee (or its respective predecessor-in-interest) entered into a Winnetka License Agreement dated August 20, 1996, as amended by First Amendment to 1996 License Agreement dated November 1, 2011, as amended by Second Amendment to 1996 License Agreement dated October 28, 2013 (hereinafter, collectively, the “**Agreement**”), pursuant to which Licensor granted Licensee a license to use the Licensed Premises, as this term is defined in the Agreement, and which consists of a portion of the property located at 410 Green Bay Road, Winnetka, IL; and

**WHEREAS**, pursuant to the Agreement, Licensee may use the Licensed Premises for the purpose of the construction, installation, removal, repair, replacement, maintenance, and operation of the Licensee Facilities, as this term is defined in the Agreement.

**WHEREAS**, the Licensed Premises includes a room located on the basement floor of the Building, as this term is defined in the Agreement, which room is depicted on the Project Drawings, as this term is defined in the Agreement (“**Building Space Room**”).

**WHEREAS**, the term of the Agreement will expire on August 31, 2015, and the parties mutually desire to renew the Agreement, memorialize such renewal period and modify the Agreement in certain other respects, all on the terms and conditions contained herein; and

**WHEREAS**, Licensor and Licensee desire to amend the Agreement to extend the term of the Agreement; and

**WHEREAS**, Licensor and Licensee desire to amend the Agreement to adjust the License Fee (as defined below) in conjunction with the modifications to the Agreement contained herein; and

**WHEREAS**, Licensor and Licensee desire to amend the Agreement to modify the notice paragraph thereof; and

**WHEREAS**, Licensor and Licensee desire to amend the Agreement to permit Licensee, subject to the provisions of this Third Amendment, to add, modify and/or replace the Licensee Facilities when necessary to comply with federal, state or local law, including but not limited to laws related to emergency 911 communication services; and

Cell Site No.: IL1340  
Cell Site Name: WINNETKA FIRE STATION  
Fixed Asset No.: 10095256  
Market: IL / WI  
Address: 410 Green Bay Road

**WHEREAS**, Licensor and Licensee, in their mutual interest, wish to amend the Agreement as set forth below accordingly.

**NOW THEREFORE**, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Licensor and Licensee agree that the recitals set forth above are incorporated herein as if set forth in their entirety and further agree as follows:

1. **Extension of Term.** The term of the Agreement shall be extended to provide that the Agreement has a new initial term of ten (10) years ("**New Initial Term**") commencing on September 1, 2015 ("**New Term Commencement Date**"). As of the New Term Commencement Date, the existing Term and any extensions thereof, as applicable, shall be void and of no further force or consequence. The Agreement will automatically renew, commencing on the expiration of the New Initial Term, for up to three (3) separate consecutive additional periods of five (5) years each (each such five (5) year additional period is hereinafter referred to as an "**Additional Extension Term**" and each such Additional Extension Term shall be considered an Extension Term under the Agreement), upon the same terms and conditions of the Agreement, as amended herein, without further action by the parties; provided, however, that either party may terminate this Agreement by providing written notice to the other party at least twelve (12) months prior to the expiration of the New Initial Term or the then-current Additional Extension Term, whichever applies. The New Initial Term and the Additional Extension Term are collectively referred to as the Term ("**Term**").

2. **License Fee.** Commencing on September 1, 2015, the current License Fee payable under the Agreement shall be Sixty-Four Thousand Seven Hundred Seventy-Five and 36/100 Dollars (\$64,775.36) annually (the "**License Fee**"), and shall continue during the Term, subject to adjustment as provided herein. Section 6(b) of the Agreement shall be amended to provide that License Fee shall be adjusted as follows: beginning on September 1, 2016 and each year thereafter, including throughout any Additional Extension Term, the annual License Fee will increase by three percent (3%) over the License Fee paid during the previous year. Licensee must pay the License Fee each year of the Term on or before September 1<sup>ST</sup>.

3. **Use of Building Space Room; Modifications to Licensee Facilities.**

A. Building Space Room. Licensee, its personnel, invitees, contractors, or agents: (i) may use the Building Space Room, at no additional cost or expense, for the transmission and reception of any and all communications signals (subject to the non-interference provisions set forth in Section 8 of the Agreement); and (ii) may, without the prior approval of Licensor, modify, supplement, replace, upgrade, expand, or refurbish the Licensee Facilities located within the Building Space Room; provided, however, that all work within the Building Space Room must comply with all applicable laws, including, without limitation, the Village of Winnetka's building and construction regulations. Licensee shall be responsible for obtaining all governmental permits and approvals necessary to modify, supplement, replace, upgrade, expand,

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Market: IL / WI  
Address: 410 Green Bay Road

or refurbish the Licensee Facilities within the Building Space Room. Licensor shall reasonably cooperate with Licensee's efforts to obtain such permits and approvals.

B. Outside Building Space Room. Notwithstanding any other provision of this Agreement, Licensee shall not, without Licensor's prior written consent and approval: (i) modify, supplement, replace, upgrade, or expand any of the existing Licensee Facilities located within a portion of the Licensed Premises other than the Building Space Room; or (ii) construct or install any new or additional facilities or equipment at any location other than a location within the Building Space Room (collectively, the "**Additional Work**"). If Licensee desires to perform any Additional Work, Licensee must submit a written request to Licensor describing the Additional Work. At Licensor's request, Licensee must provide plans to Licensor depicting the Additional Work and any other information related to the Additional Work reasonably requested by Licensor. Licensor may grant or deny any request by Licensee to perform Additional Work in Licensor's sole discretion. Licensee must pay Licensor a one-time supplemental license fee in the amount of Three Thousand and No/100 Dollars (\$3,000.00) in consideration for each request to perform Additional Work that is granted by Licensor.

4. **Charges.** All charges payable under the Agreement such as utilities and taxes shall be billed by Licensor within one (1) year from the end of the calendar year in which the charges were incurred; any charges beyond such period shall not be billed by Licensor, and shall not be payable by Licensee. The preceding sentence does not apply to payment of the License Fee by Licensee, which is due and payable without a requirement that it be billed by Licensor. The provisions of this subsection shall survive the termination or expiration of the Agreement.

5. **Acknowledgement.** The parties acknowledges that: (a) this Third Amendment is entered into of the parties' free will and volition; and (b) the parties have read and understand this Third Amendment and the underlying Agreement and, prior to execution of this Third Amendment, were free to consult with counsel of their choosing.

6. **Notices.** Section 19(d) of the Agreement is hereby deleted in its entirety and replaced with the following:

"NOTICES. All notices, requests, and demands hereunder will be given by first class certified or registered mail, return receipt requested, or by a nationally recognized overnight courier, postage prepaid, to be effective when properly sent and received, refused or returned undelivered. Notices will be addressed to the parties as follows:

If to Licensee:

New Cingular Wireless PCS, LLC  
Attn: Network Real Estate Administration  
Re: Cell Site # IL1340  
Cell Site Name WINNETKA FIRE STATION (IL); Fixed Asset No.: 10095256  
575 Morosgo Drive NE  
Atlanta, GA 30324

Cell Site No.: IL1340  
Cell Site Name: WINNETKA FIRE STATION  
Fixed Asset No.: 10095256  
Market: IL / WI  
Address: 410 Green Bay Road

With a required copy of the notice sent to the address above to AT&T Legal at:

New Cingular Wireless PCS, LLC  
Attn: AT&T Legal Department  
Re: Cell Site # IL1340  
Cell Site Name WINNETKA FIRE STATION (IL); Fixed Asset No: 10095256  
208 S. Akard Street  
Dallas, Texas, 75202-4206

A copy sent to the Legal Department is an administrative step which alone does not constitute legal notice.

And as to Licensor:

Village of Winnetka  
510 Green Bay Road  
Winnetka, IL 60093  
Attention: Village Manager

With a copy to:

Holland & Knight, LLP  
131 South Dearborn Street, 30<sup>th</sup> Floor  
Chicago, IL 60603  
Attention: Peter M. Friedman

Either party hereto may change the place for the giving of notice to it by thirty (30) days prior written notice to the other as provided herein.”

7. **Other Terms and Conditions Remain.** In the event of any inconsistencies between the Agreement and this Third Amendment, the terms of this Third Amendment shall control. Except as expressly set forth in this Third Amendment, the Agreement otherwise is unmodified and remains in full force and effect. Each reference in the Agreement to itself shall be deemed also to refer to this Third Amendment.

8. **Capitalized Terms.** All capitalized terms used but not defined herein shall have the same meanings as defined in the Agreement.

[NO MORE TEXT ON THIS PAGE - SIGNATURES TO FOLLOW ON NEXT PAGE]

Cell Site No.: IL1340  
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Fixed Asset No.: 10095256  
Market: IL / WI  
Address: 410 Green Bay Road

IN WITNESS WHEREOF, the parties have caused their properly authorized representatives to execute this Third Amendment on the dates set forth below.

LICENSOR:  
Village of Winnetka,  
an Illinois home rule municipality

LICENSEE:  
New Cingular Wireless PCS, LLC,  
a Delaware limited liability company

By: AT&T Mobility Corporation  
Its: Manager

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: Village President  
Date: \_\_\_\_\_

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

[ACKNOWLEDGMENTS APPEAR ON THE NEXT PAGE]





**Cell Site No.: IL1340**  
**Cell Site Name: WINNETKA FIRE STATION**  
**Fixed Asset No.: 10095256**  
**Market: IL / WI**  
**Address: 410 Green Bay Road**

**Exhibit A**

**Copy of Agreement**

**Winnetka License Agreement**

This Winnetka License Agreement ("Agreement") is entered into this 20<sup>th</sup> day of August, 1996, between AT&T Wireless PCS, Inc. a Delaware corporation having an office at 8420 W. Bryn Mawr, Suite 225, Chicago, Illinois 60631 ("AT&T"), ("Licensee), and the VILLAGE OF WINNETKA, an Illinois municipal corporation ("Licensor").

For good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. Definitions: Licensor and Licensee agree that the respective terms as used herein shall, unless the context otherwise requires, have the following meanings:

"Building" means the building located on the Land and housing the Licensor's public safety facilities.

"Existing" Tower means to monopole structure presently on the land.

"Land" means the parcel of real estate owned by Licensor and legally described on Exhibit A hereto, which is commonly known as 410 Green Bay Road, Village of Winnetka, Cook County, Illinois.

"Licensed Premises" means the interior portion of the Building and certain exterior portions on and adjacent to the Tower, including the platform, all as depicted on the project drawings, Nos. 1227B-1 through 1227B-22, dated 8/2/96 and incorporated herein by reference ("Project Drawings"), which portions of the Building and Tower are licensed to Licensee subject to the terms and conditions of this License Agreement.

"Licensee Facilities" means any radio communications equipment owned and installed by the Licensee on the Property for operation by the Licensee subject to the terms and conditions of this Agreement, which equipment includes the HVAC units, radio cabinets, utility lines, electronic equipment, transmission lines, radio transmitting and receiving antennas, and supporting structures thereto, all as depicted in the Project Drawings, which are incorporated herein by reference. The Licensee Facilities does not include the Tower or any antennas installed for police, fire or other municipal communications or any of the Licensor Requirements specified in Exhibit B hereto.

"Property" means the Land, Tower and Building, collectively.

"Telecommunications Service" means any wireless services offering voice, data and video communications permitted under Commercial Mobile Radio Services, Personal Communications Service-Broadband Radio Station Authorization License.

August 20, 1996

"Tower" means the monopole structure to be constructed on the Land by Licensee, as depicted on the Project Drawings.

Licensor and Licensee agree that capitalized terms defined elsewhere in this Agreement shall have the meaning given in such definition, unless the context or use clearly indicates another or different meaning as intended.

2. Grant of Rights to Licensee The Licensor hereby grants to Licensee the authority to use the Licensed Premises on a non-exclusive basis for the construction, installation, removal, repair, replacement, maintenance, and operation of the Licensee Facilities in connection with the provision of Telecommunication Services, subject to the terms and conditions hereinafter stated; provided that Licensee shall not use the Licensed Premises as a regular work site for its personnel, except as such use of the Licensed Premises is required for the construction, installation, removal, repair, replacement, maintenance and operation of the Licensee Facilities. Licensor agrees to cooperate with Licensee at Licensee's sole expense, in making application for and obtaining all licenses, permits and any and all other necessary approvals that may be required for Licensee's intended use of the Licensed Premises. It is understood by the parties hereto that Licensee shall be responsible for the making of all applications for all necessary licenses and permits.

3. Limitations of Rights Granted

(a) Licensee acknowledges that Licensor uses the Property in connection with providing public safety services, including police and fire services, within the Village of Winnetka and that the rights granted to Licensee under this Agreement shall at all times be subject to Licensor's right to operate its public safety departments.

(b) Licensee further acknowledges that the Licensor uses the Property as a location for Licensor's municipal communications antennae, including police and fire communications, and that the rights granted to Licensee under this Agreement shall at all times be subject to Licensor's right to use the Property for such purposes. In the event that the operation of the Licensee Facilities interferes in any way with the Licensor's municipal communications, the Licensee shall immediately cease operation of the Licensee Facilities and shall not resume operation until the interference is corrected. In the event Licensee continues to operate the Licensee Facilities under such circumstances, Licensor may shut down the operation of Licensee Facilities by cutting off the electrical supply thereto. Any testing to determine the effectiveness of corrective measures may be conducted only after obtaining approval of the time and manner of testing from the Licensor. In no event shall Licensor be required to remove or relocate any of its communications equipment on the Property, including but not limited to Licensor's antennas on the Tower, for the benefit of the Licensee. The types and placement of all of Licensor's antennas and the frequencies at which they operate, shall be as determined by an engineer retained by the Licensor.

(c) Licensee further acknowledges that Licensor reserves the right in its sole discretion to grant certain rights to others for the use of the Property. If any users other than the Licensor are allowed on the new Tower, Licensee will be compensated by such users on a pro rata basis for all costs, as depicted in Exhibit C, hereto, associated with the design, provision and erection of the new tower including the foundation, grounding, all removals and restoration associated with the existing tower. Licensor shall include this compensation agreement in all applicable agreements.

(d) Unless Licensee has received prior written approval from Licensor, Licensee shall not use the Licensed Premises for any purpose other than that defined herein.

(e) Licensee may install, remove, repair, replace, maintain, and operate its antennas on the new Tower as necessary for Licensee's Telecommunications services. The location of Licensee's antennas shall be as depicted in the Project Drawings, subject to the review and approval of such locations by an engineer retained by the Village.

#### 4. Access

(a) Licensee shall have the right at any time following the full execution of this agreement to enter upon the Property for access to Licensee Facilities for the purpose of making necessary engineering surveys, inspections, other reasonably necessary tests and constructing the Licensee Facilities; provided, however, such tests and construction shall be at Licensee's sole cost and expense. The Licensee shall notify the Licensor prior to entering upon the Property. It is specifically understood that the Licensor may deny Licensee entry to the Property if the Licensor, in its sole discretion, determines that such denial is warranted due to public safety concerns.

(b) Upon completion of the construction and testing of the Licensee Facilities, Licensee, Licensee's employees, agents and sub contractors shall have access to the Licensed Premises twenty-four (24) hours a day, seven (7) days a week. Licensee agrees to provide Licensor with the name and telephone number of a contact person or persons responsible for Licensee's operations at the Property twenty-four (24) hours a day, seven (7) days a week.

(c) Prior to entering upon the Property, Licensee shall notify Licensor by telephoning the Facilities Operator at (847) 501-6034.

5. Terms The term of this Agreement shall be ten (10) years commencing on September 1, 1996 ("Commencement Date") and terminating August 31, 2006 ("Term") unless otherwise terminated as provided in Paragraph 11. Licensee shall have the right to extend the Term for three (3) successive three-year periods ("Renewal Terms") on the same terms and conditions as set forth herein. This agreement shall automatically be

extended for each successive Renewal Term, unless otherwise terminated as provided in Paragraph 11.

6. License Fees

(a) On December 1, 1996, and on each anniversary of the Commencement Date thereafter, Licensee shall pay to Licensor as a fee Twenty-four Thousand and 00/100 Dollars (\$24,000) per year ("License Fee"). The License Fee for any fractional month at the end of the Term or Renewal term shall be prorated. The Licensee Fee shall be payable to Licensor at 510 Green Bay Road, Winnetka, IL 60093; Attention: Accounts Receivable.

(b) The Licensee Fee shall be increased each year by adding to the then current Licensee Fee an amount equal to the Consumer Price Index ("CPI") for the Chicago, Gary, Lake County, Illinois, Indiana, Wisconsin Metropolitan Statistical Area for the preceding year plus one percent (1%). Such increased Licensee Fee shall be computed and become effective on each anniversary of the Commencement Date.

7. Construction and Testing; Restoration of Licensed Premises; and Utilities.

(a) Licensee, at its sole cost and expense, has the right to erect, maintain and operate the Licensee Facilities on the Licensed Premises. In connection therewith, Licensee has the right to do all work necessary to prepare, maintain, and alter the Licensed Premises for Licensee's business operations and to install transmission lines connecting the antennas to the transmitters and receivers, as depicted in the Project Drawings, subject to the final review and approval of the Project Drawings by an engineer retained by the Licensor.

(b) Licensee, at its sole cost and expense, shall provide and erect a new one-hundred (100 ft.) foot tall monopole tower ("Tower") and Licensor Requirements as depicted in the Project Drawings. The title to the Tower and Licensor Requirements shall be granted to Licensor upon completion and acceptance by Licensor. The Licensor reserves the right to add to, delete or otherwise alter the number and configuration of its antennas on the Tower when it determines such addition, deletion or alteration is required for public safety purposes.

(c) The final Project Drawings, and in particular all plans for the ground plane and configuration of antennas, shall be subject to the review and approval of an engineer to be retained by the Licensor at Licensee's expense. Licensee shall cooperate with Licensor in such review by providing all information needed for such review, including but not limited to, Licensee's equipment, antennas and operating frequencies, the proposed capacity of the Town and the reserve load capacity. Upon receiving such final approvals, the Licensee shall not thereafter alter its equipment, operating frequencies or antenna

configurations without the express written approval of the Licensor after review of the proposed alterations by an engineer to be retained by the Village at Licensee's expense.

(d) Prior to commencing reasonable tests related to the construction of the Licensee Facilities, and prior to construction, Licensee shall obtain approval of its tests and construction plans from the Licensor, which approval shall not be unreasonably withheld. All construction plans shall be signed, stamped and sealed by a structural engineer registered as such in the State of Illinois. All test plans related to the construction of the Licensee Facilities shall be submitted to the Licensor for its review and approval. Licensor shall give such approval or provide Licensee with its requests for change within seven (7) days of Licensor's receipt of such plans. If Licensor does not provide such approval or request for changes within such seven (7) day period, it shall be deemed to have approved such plans. Licensor shall not be entitled to receive any additional consideration in exchange for giving its approval of such plans.

(e) Upon the completion of all tests and construction, Licensee shall remove any debris from the Property resulting from its tests or construction and shall restore the Property to the condition that existed prior to such tests and/or construction, except that such restoration shall not require removal of the Licensee Facilities prior to this Agreement's expiration or earlier termination.

(f) Title to the Licensee Facilities shall be held at all times by Licensee. Licensee Facilities shall remain Licensee's personal property and shall not be deemed fixtures to the Property. Licensee shall remove all Licensee Facilities at its sole cost and expense on or before expiration or earlier termination of the agreement; provided, if Licensor so notifies Licensee no less than sixty (60) days prior to the Agreement's expiration or earlier termination.

(g) Licensee shall purchase all electricity and other utilities used in its operation on the Licensed Premises, except for telephone service, from the Licensor's existing electric and other municipal utilities on the Property. Payment for such utility service shall be at the applicable rates charged by Licensor for comparable customers, as set by the Licensor from time to time by resolution or ordinance, and Licensor specifically reserves the right to adjust such rates in its sole discretion. All utility services shall be metered and the Licensee, at its sole cost and expense, shall pay for the purchase and installation of any such meters, and for the service connections, and any utility line extensions needed to provide such utility service. If the Licensor does not provide a particular existing easement, the Licensor reserves the right to exercise its discretion, not unreasonably withheld, in granting utility easements for such purposes.

8. Non-interference:

(a) Licensee shall operate the Licensee Facilities in a manner that will not cause radio frequency or signal interference to Licensor and other lessees or licensee of the

Property, provided that the installation of such lessees or licensees predate the execution of this Agreement. All operation by Licensee shall be in compliance with all Federal Communication Commission ("FCC") requirements.

(b) Except as provided in Paragraph 7(b) above and Paragraph 11, subsequent to the installation of the Licensee Facilities, Licensor shall not permit itself, its lessees or licensees to install new communication equipment on the Property if such equipment is likely to cause radio frequency or signal interference with Licensee's operation. In the event interference occurs, Licensor agrees to take all reasonable steps necessary to eliminate such interference, in a reasonable time period. The failure of Licensor to do so shall be deemed a material breach of the Agreement by Licensor and shall entitle Licensee to terminate this Agreement for default pursuant to Paragraph 11. Licensor shall be deemed to have taken all reasonable steps to eliminate such interference by any additional lessee or licensee if the Licensor includes a provision in the lease or license with such lessee or licensee requiring it to operate its facilities without interfering with Licensee's prior rights under this Agreement.

9. Taxes. Licensee shall pay all applicable personal property, use or occupational taxes at the time such taxes are due. In the event the Property loses its tax-exempt status due to the presence of the Licensee Facilities, Licensee shall promptly pay all such real estate taxes attributable to Licensee's use of the Property. Licensor agrees to promptly notify Licensee in the event that the Property loses its tax-exempt status and further agrees to provide Licensee with a copy of the tax assessment and tax bills for the Property. Licensee's obligation to pay any taxes associated with this Agreement shall terminate when Licensee has paid all such taxes assessed against the Property for the period of time Licensee occupies the Licensed Premises. Licensee and its agents shall have the right to challenge and contest any assessed valuation forming the basis of any real estate taxes levied or to be levied, and the amount and validity, in whole or in part, of any real estate taxes levied for which Licensee shall exercise reasonable diligence in all proceedings in connection therewith. The failure of Licensee to pay any applicable personal property, use or occupation taxes, or its share of applicable real estate taxes when due, shall be a material breach of this Agreement and shall entitle Licensor to terminate this Agreement for default pursuant to Paragraph 11.

10. Waiver of Licensor's Lien and Licensee's Lien Obligations.

(a) Licensor waives any lien rights it may have concerning the Licensees Facilities which are deemed Licensee's personal property and not fixtures, and Licensee has the right to remove the same at any time without Licensor's consent.

(b) Licensee will not permit any mechanics' or materialmen's or other liens on the Property for any labor or material furnished Licensee in connection with work performed. Licensee shall promptly pay the determined amount of such lien with all costs, fees and charges, thereby releasing such lien. Licensee shall have the right to

contest the validity, nature or amount of any such lien and , upon the final determination of such question, shall immediately pay any adverse judgment rendered with all proper costs and charges and shall have the lien released at its sole expense. Licensee shall immediately provide Licensor with a copy of any lien pertaining to the Property. If Licensee desires to contest any such lien, then prior to commencing such contest, it will furnish Licensor written notice of such contest and a bond or irrevocable letter of credit, the choice and request of which shall be at Licensor's sole discretion, to secure the payment of such obligation. Licensor shall have the sole discretion to determine the form of security. In the event Licensee fails to immediately pay and release any such lien, whether without consent or upon a final determination, such failure shall be a material breach of this Agreement and will be cause for termination under Paragraph 11.

11. Termination.

(a) This Agreement may be terminated by either party for a material breach or upon a default of any covenant or term hereof by the other party, which default is not cured within sixty (60) days of receipt of written notice of default, and provided further that any monetary default must be cured, it at all, within ten (10) days from receipt of notice.

(b) This Agreement may be terminated by Licensee if Licensee is unable, due to circumstances beyond its control, to occupy and utilize the Licensees Premises due to an action of the FCC, including without limitation, a take back of channels or change in frequencies; provided, however, Licensee provides notice to Licensor within thirty (30) days of receipt of notice from the FCC initiating such action, and further within thirty (30) days of receipt of notice of final ruling or any order on appeal of such action. This Agreement may be terminated by Licensee if Licensee is unable, due to circumstances beyond its control, to obtain from Licensor any permits required by Licensor's ordinances for the construction and/or operation of the Tower and Licensee Facilities.

(c) This Agreement may be terminated by either party if Licensor is unable to eliminate interference with the operation of Licensee Facilities, provided such interference results from an addition, deletion or other alteration to Licensor's antennas on the Tower that is required for public safety reasons, and provided further that the party desiring to terminate the Agreement provides notice to the other party at least thirty (30) days prior to such termination.

(d) During any Renewal Term either party may terminate this Agreement; provided however, such party provides the other party with twelve (12) months prior written notice.

12. Destruction and Condemnation. If the property or the Licensed Premises is damaged, destroyed or condemned, Licensor may elect, at its sole discretion, to terminate this Agreement as of the date of the damage, destruction or condemnation by giving

notice to Licensee no more than forty-five (45) days following the date of such damage, destruction or condemnation. If Licensor chooses not to terminate this Agreement and chooses to rebuild such portion of the Licensed Premises as was damaged, destroyed or condemned, then this Agreement shall be amended by the Licensor and Licensee within forty-five (45) days of the Licensor's decision to rebuild and reuse, with the License fee being reduced or abated in proportion to the actual reduction or abatement of the use of the Licensed Premises by Licensee.

13. Force Majeure. In the event that Licensor or Licensee shall be delayed, hindered in or prevented from the performance of any act required hereunder by reasons of acts of God, strikes, blackouts, labor trouble, inability to procure materials, riot, insurrection, failure to power, restrictive governmental laws or regulations, the act, failure to act or default of the other party, war or other reason beyond their control, then performance of such act shall be extended for a period equivalent to the period of such delay but in no event shall this clause postpone, delay or excuse payment of the License Fee by Licensee to Licensor or taxes to the proper governmental authority; provided, however, if such performance by any party hereto shall be permanently excused, then this Agreement shall be terminated as of the date of such determination as to the permanency of the period of such nonperformance.

14. Insurance. Licensee, at Licensee's sole cost and expense, shall procure and maintain on the Licensed Premises and on the Licensees Facilities, bodily injury and property damage insurance with a combined single limit of at least three million and 00/100 Dollars (\$3,000,000.00) per occurrence. Such insurance shall insure, on an occurrence basis, against all liability of Licensee, its employees, and agents arising out of or in connection with Licensee's use of the Licensed Premises, all as provided for herein. Licensor shall be named as an additional insured on Licensee's use of the Licensed Premises, all as provided herein. Licensor shall be named as an additional insured on Licensee's policy. Licensee shall also obtain umbrella liability insurance providing coverage in limits of \$5,000,000.00. Licensee shall provide to Licensor a certificate of insurance evidencing the coverage required by this paragraph on or before the Commencement Date.

15. Assignment and Subletting. Licensee may not assign, or otherwise transfer all or any part of its interest in this Agreement or in the Licensed Premises without the prior written consent of Licensor; provided, however that Licensee may assign its interest to its general partner or any subsidiary or affiliate thereof or to any successor-in-interest or entity acquiring fifty-one percent (51%) or more of its partnership interest, upon written notice to licensor and subject to said assignee's assuming all of Licensee's obligations herein. Licensor may assign this agreement upon written notice to Licensee, subject only to said assignee is assuming all of Licensor's obligations herein, including but not limited to, those set forth in Paragraphs 10 and 11.

16. Warranty of Title and Quiet Enjoyment. Licensor warrants that; (i) Licensor owns the Property in fee simple and has rights of access thereto; (ii) Licensor has full right to make and perform this Agreement; and (iii) Licensor covenants and agrees with Licensee that upon Licensee is paying the License Fee and observing and performing all the terms, covenants and conditions on Licensee's part to be observed and performed, Licensee may peacefully and quietly enjoy the Premises.

17. Repairs. Routine maintenance and repair of the Property (specifically excluding Licensed Premises) shall be at Licensor's sole discretion, cost and expense. Licensee, at its sole cost and expense, shall keep the Licensed Premises clean and in good repair for the duration of this Agreement. Licensee, at its sole cost and expense, shall repair to Licensor's specifications any damages to the Property caused by its erection, maintenance, operation and removal of Licensee Facilities, excluding normal wear and tear and loss by casualty or other causes reasonably beyond Licensee's control. Should any damage to the Property due to Licensee's exercise of its rights under this Agreement not be satisfactorily repaired by Licensee within sixty (60) days of discovery of such damages, Licensor shall have the right to make such repairs and charge Licensee for such repairs. Licensee's failure to pay Licensor for such repairs shall be a material breach of this Agreement and Licensor shall have the right to terminate this Agreement pursuant to Paragraph 11.

18. Indemnity.

(a) Licensee shall exonerate, hold harmless, indemnify, and defend Licensor, Licensor's employees, officers, agents, representatives, subcontractors and existing licensees from any and all claims, obligations, liabilities, costs, demands, damages, expenses, suits or causes of action, including costs and reasonable attorney's fees, which may arise out of: (1) any injury to or the death of any person; or (2) any damage to property; provided such injury, death or damage arises out of or is attributable to or results from Licensee's use and operation of the Licensed Premises.

(b) Licensor shall exonerate, hold harmless, indemnify, and defend Licensee, Licensee's employees, agents, representatives and subcontractors from and against any and all liabilities, damages, costs and expenses arising out of or resulting from the negligent acts or omissions of Licensor, its agents, representatives or subcontractors (but not other lessees or licensees of the Property), including without limitations, the failure of any such person or entity to exercise due care with respect to the Licensee Facilities on the Licensed Premises or the negligent interference of any such person with the Licensee Facilities. The provisions of this paragraph are not intended to constitute a waiver of any immunities or other defenses to which the Licensor may be entitled under applicable law.

19. Miscellaneous.

(a) This Agreement constitutes the entire agreement and understanding between the parties, and supersedes all offers, negotiations and other agreements concerning the

subject matter contained herein. Any amendments to this Agreement must be in writing and executed by both parties.

(b) If any provision of this Agreement is held invalid or unenforceable with respect to any party, the remainder of the Agreement or the application of such provision to persons other than those as to whom it is held invalid or unenforceable, shall not be affected and each provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

(c) This Agreement shall be binding on and inure to the benefit of the successors and permitted assignees of the respective parties.

(d) Any notice or demand required to be given herein shall be made by certified or registered mail, return receipt requested, or reliable overnight courier with proof of receipt, to the address of the respective parties set forth below:

Licensor: VILLAGE OF WINNETKA  
510 Green Bay Road  
Winnetka, IL 60093  
Attn: Village Manager

Licensee: AT&T WIRELESS PCS, INC.  
8420 W. Bryn Mawr, Suite 225  
Chicago, IL 60631  
Attn: Director of Site  
Development

(e) This Agreement shall be governed by the laws of the State of Illinois.

(f) In any case where the approval or consent of one party hereto is required, requested or otherwise to be given under this Agreement, such approval or consent shall not be unreasonably delayed or withheld.

(g) All Riders and Exhibits annexed hereto form material parts of this Agreement.

(h) This agreement may be executed in duplicate counterparts, each of which shall be deemed an original.

(i) The Licensor and Licensee acknowledge and agree any termination by either party pursuant to Paragraph 11(a) shall not be the sole remedy for breach of contract available to such party terminating this Agreement thereunder.

20. Tower Marking and Lighting Requirements. Licensor shall be responsible for compliance with all marking and lighting requirements of the Federal Aviation Administration ("FAA") and the FCC; provided, however with respect to the Licensed Premises, Licensee shall be responsible for compliance with all marking and lighting requirements of the FAA and FCC. Should Licensee be cited because the Property is not in compliance as a result of Licensor's failure to comply with such requirements

and should Licensor fail to cure the conditions of noncompliance, Licensee may cure the conditions of noncompliance at the Licensor's expense, which amounts may be deducted from the Licensee Fee. Should Licensor be cited because the property is not in compliance as a result of Licensee's failure to comply with such requirements and should Licensee fail to cure the conditions of noncompliance at Licensee's expense or provide Licensee with notice of default pursuant to Paragraph 11.

IN WITNESS THEREOF, the parties have executed this Agreement as of the date first above written, pursuant to resolutions duly adopted by each respective party to authorize such act.

[Seal]

Attest:

By:

*Douglas G. Williams*  
Douglas G. Williams  
Village Clerk

LICENSOR:

VILLAGE OF WINNETKA, an  
Illinois municipal corporation

By:

*Paul F. Cruikshank*  
Paul F. Cruikshank  
Village President

Tax ID# \_\_\_\_\_

LICENSEE:

AT&T WIRELESS PCS, INC.  
a Delaware Corporation

By:

*Joseph L. ...*  
**DIRECTOR OF SYSTEM  
DEVELOPMENT**

[Seal]

Attest:

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

STATE OF ILLINOIS        )  
  )  ss  
COUNTY OF COOK        )

The undersigned, a Notary Public, does hereby certify that on 8/20/96, 1996, there appeared before me in person Joseph Kirsten, personally known to me to be the Director of System Develop of AT&T Wireless PCS, Inc., a Delaware corporation that executed the within and foregoing instrument (the "Corporation") and acknowledged the said instrument to be the free and voluntary act and deed of the Corporation as agent for AT&T Wireless PCS, Inc., for the uses and purposes therein mentioned, and on oath stated, that he was authorized to execute said instrument on behalf of the Corporation as agent for AT&T Wireless PCS, Inc.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

NOTARY PUBLIC in and for the state of Illinois.

Residing at 3162 N Sheffield Ave, Chicago.

My commission expires: 1/25/99.

*Ellen Goldstein*



**EXHIBIT A  
DESCRIPTION OF LAND**

to the Agreement dated Aug. 20, 1996, by and between the VILLAGE OF WINNETKA, as Licensor, and AT&T WIRELESS PCS, INC., as Licensee.

The Land is described and/or depicted as follows:

Block 50 in Winnetka, being a subdivision of the northeast quarter of Section 20 and the north half of fractional Section 21, Township 42 North, Range 13, East of the Third Principal Meridian, according to the plat thereof recorded in the Recorder's office in Book 5 of Plats, at Page 78, as Document number 119381, (except that part lying northeasterly of and adjoining a line drawn parallel with and 75 feet southwesterly from, as measured at right angles to the southwesterly line and said line extended, of the right of way of Chicago and Northwestern Railroad Company also except the north 33 feet, taken for Cherry Street, the west 33 feet, taken for Ridge Avenue, and the south 33 feet, taken for Ash Street, all in the Village of Winnetka, Cook County, Illinois;

and otherwise known as 410 Green Bay, Winnetka, IL.

P.I.N.: \_\_\_\_\_

**EXHIBIT B  
LICENSOR REQUIREMENTS**

The following antennas and specifications are subject to final review and approval by an engineer to be retained by Licensor, at Licensee's expense. All terms used in this exhibit that are defined in the Winnetka License Agreement to which it is attached shall have the same meaning as defined in said Agreement.

Licensee Facilities shall be designed to prevent intermod or any other type of interference with the received or transmitted signals of any of Licensor's communications systems on the Tower, and to prevent a desensitization greater than 1.0dB of such systems.

Unless otherwise provided, all Licensor Requirements shall be new and shall be installed and tested at Licensee's expense.

Item	Amount	Description
A	1	UHF (470 to 476 MHz) receiver antenna, with a west facing single reflector. Fibreglass enclosed. (Norcom Receiver)
B	3	VHF (150 to 160 MHz) RX/TX multi-element high gain antennas with ground planes. Omni-directional. Fibreglass enclosed. (Fire, Police "Point"/Channel 10, Fire Admin radios)
C	2	VHF (150 to 163 MHz) Monitor antennas, (1/4 wave ground planes are sufficient). Omni-directional (MABAS/ISPERN/RED/Weather monitors)
D	1	UHF (470 to 476 MHz) omni-directional 1/4 wave groundplane control station antenna (Norcom Control)

All above except Item C will require 7/8 inch hard line, C will require RG-8 or better.

All connections to a patch panel in the Equipment Room, with 1/2 inch semi-flexible connector cables to the individual radios. Patch panel will terminate in either "N" or SO-239 connections. All patch cords beyond patch panel will terminate in PL-259 connectors. Patch panel will identify to which antenna each connector terminates.

All outside connectors to be weather resistant and without adapters.

Antenna identified in Item A above must be placed at the top of the tower. The antennas identified in Item B may be placed lower, on side arms. Exact placement on tower to be determined by Technical Staff. Antennas listed in Items C and D may also be placed on sidearms, exact positions are not critical.

The appropriate grounding field must also be installed.

The Existing Tower has a height of 100 feet above grade. The new Tower is to be constructed of equal height and painted sky blue to match the color of the Existing Tower, as previously approved by the Design Review Board.

The old Generator Room is 15' x 15'6", and has an interior ceiling clearance of 9'6".

Existing duct work or new duct work planned for room must not be altered.

Existing Tower must be removed and disposed of by Licensee. Antennas on the Existing Tower shall be removed prior to the removal of the Existing Tower and shall remain property of the Licensor. The removal of the Existing Tower and antennas shall not occur until construction of the new Tower has been completed and all of Licensee Facilities and Licensor Requirements have been constructed, installed, tested and activated for regular operation.

Existing tower base must be removed at least 2 feet below grade to facilitate landscape work.

All plans for testing of Licensee Facilities and Licensor Requirements shall be submitted to the Licensor for its review and approval prior to conducting any tests. Licensee shall be responsible for conducting all tests, which shall meet the following minimum standards of testing interference performance:

- (a) activating all of Licensee's transmission equipment to test the effects on Licensor's NORCOM system; and
- (b) activating all of Licensee's transmission equipment to test desensitization on Licensor's receiver/antenna system.

All test results for Licensee Facilities and Licensor Requirements shall be submitted to the Licensor for its review and approval prior to activating Licensee Facilities and Licensor Requirements for regular operation.

**EXHIBIT C**

**DEPRECIATION SCHEDULE FOR NEW TOWER COSTS**

	<u>Total Costs</u>	<u>Shared Amount</u>
Year 1	\$ 25,500	\$ 12,750
Year 2	\$ 22,950	\$ 11,475
Year 3	\$ 20,400	\$ 10,200
Year 4	\$ 17,850	\$ 8,925
Year 5	\$ 15,300	\$ 7,650
Year 6	\$ 12,750	\$ 6,375
Year 7	\$ 10,200	\$ 5,100
Year 8	\$ 7,650	\$ 3,825
Year 9	\$ 5,100	\$ 2,550
Year 10	\$ 2,550	\$ 1,275

Market: IL/WI  
Cell Site Number: IL1340  
Cell Site Name: Winnetka Fire Station  
Fixed Asset Number: 10095256

**FIRST AMENDMENT TO 1996 LICENSE AGREEMENT  
BETWEEN THE VILLAGE OF WINNETKA AND NEW CINGULAR WIRELESS  
(Public Safety Building Monopole, 410 Green Bay Road)**

THIS FIRST AMENDMENT TO WINNETKA LICENSE AGREEMENT (“**First Amendment**”), dated as of the latter of the signature dates below, is by and between the Village of Winnetka, an Illinois home rule municipality, having a mailing address of 510 Green Bay Road, Winnetka, IL 60093 (“**Licensor**”) and New Cingular Wireless PCS, LLC, a Delaware limited liability company; successor in interest to AT&T Wireless PCS, Inc., a Delaware corporation, having a mailing address of 12555 Cingular Way, Suite 1300, Alpharetta, GA 30004 (“**Licensee**”).

**WHEREAS**, Licensor and Licensee entered into a Winnetka License Agreement dated August 20, 1996, whereby Licensor leased to Licensee certain Premises, therein described, that are a portion of the Property located at 410 Green Bay Road, Winnetka, Illinois 60093 (“**Agreement**”); and

**WHEREAS**, Licensee desires to change or modify the Licensee Facilities, which Licensor is willing to approve; and

**WHEREAS**, Licensor and Licensee desire to adjust the rent in conjunction with the modifications to the Agreement contained herein; and

**WHEREAS**, Licensor and Licensee desire to amend the Agreement to modify the notice section thereof; and

**WHEREAS**, Licensor and Licensee, in their mutual interest, wish to amend the Agreement as set forth below accordingly.

**NOW THEREFORE**, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Licensor and Licensee agree as follows:

**1. Licensee Facilities.**

The definition of Licensee Facilities in Section 1 of the License Agreement shall be amended to include the attached Exhibit B-1, as if fully set forth therein. Licensor agrees to grant Licensee the right to replace the three existing antennas on the Existing Tower with three new antennas, each measuring 51”x12”x6,” to install three tower mounted amplifiers and additional carrier equipment within the leased room of the Public Safety Building, all as depicted on the attached Exhibit B-1, subject to the following conditions:

- (a) Licensee shall obtain all necessary permits required pursuant to Title 15 of the Winnetka Village Code, and shall submit final construction plans for review and approval, and for issuance of such permits;
- (b) the antennas shall be painted the same color as the existing antennas; and

(c) there shall be no additional coaxial cable feeding the antennas.

2. **License Fees.** Section 6 of the Agreement is hereby deleted in its entirety and replaced with the following:

6. License Fees.

(a) Commencing on September 1, 2011 ("Commencement Date"), the Licensee shall pay to Licensor an annual license fee of Fifty-Two Thousand Five Hundred and No/100 Dollars (\$52,500.00) per year, subject to further adjustments as provided in the following subsection (b) ("License Fee").

(b) The License Fee shall be increased each year by the amount of Four Percent (4%). Such increase to the License Fee shall be computed and become effective on each anniversary of the Commencement Date.

3. **Notices.** Section 19 (d) of the Agreement is hereby deleted in its entirety and replaced with the following:

**NOTICES.** All notices, requests, demands and communications hereunder will be given by first class certified or registered mail, return receipt requested, or by a nationally recognized overnight courier, postage prepaid, to be effective when properly sent and received, refused or returned undelivered. Notices will be addressed to the parties as follows.

If to Licensee: New Cingular Wireless PCS, LLC  
By: AT&T Mobility Corporation,  
Attn: Network Real Estate Administration  
Re: Cell Site #:IL1340, Cell Site Name: Winnetka Fire Station (IL),  
FA No: 10095256  
12555 Cingular Way, Suite 1300, Alpharetta, GA 30004

With the required copy of legal notice sent to Licensee at the address above, a copy to the Legal Department: New Cingular Wireless PCS, LLC  
Attn: Legal Department,  
Re: Cell Site #:IL1340, Cell Site Name: Winnetka Fire Station (IL)  
FA No: 10095256  
15 E. Midland Ave., Paramus, NJ 07652-2939

A copy sent to the Legal Department is an administrative step which alone does not constitute legal notice.

If to Licensor: Village of Winnetka  
510 Green Bay Road  
Winnetka, IL 60093  
Attn: Village Manager

Either party hereto may change the place for the giving of notice to it by thirty (30) days prior written notice to the other as provided herein.

4. **Other Terms and Conditions Remain.** Except as expressly set forth in this First Amendment, the License Agreement otherwise is unmodified and remains in full force and effect. Each reference in the License Agreement to itself shall be deemed also to refer to this First Amendment.

5. **Capitalized Terms.** All capitalized terms used but not defined herein shall have the same meanings as defined in the License Agreement.

6. **Licensee Representations.** Licensee represents that it has taken all steps necessary under law to enter into and be bound by this First Amendment, and to authorize and empower Licensee's Real Estate & Construction Manager-IL/WI to sign this First Amendment on Licensee's Behalf.

IN WITNESS WHEREOF, the parties have caused their properly authorized representatives to execute and seal this First Amendment on the dates set forth below.

**"LICENSOR"**  
Village of Winnetka

By: Jessica B. Tucker  
Name: Jessica B. Tucker  
Title: Villagel President  
Date: November 1, 2011

**"LICENSEE"**  
New Cingular Wireless PCS, LLC,  
a Delaware limited liability company

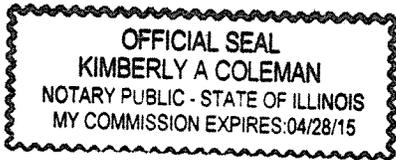
By: AT&T Mobility Corporation  
Its: Manager

By: Scott A. Root  
Name: Scott A. Root  
Title: Real Estate & Construction Manager- IL/WI  
Date: 10-12-11

LICENSEE ACKNOWLEDGEMENT

STATE OF ILLINOIS )  
 ) ss:  
COUNTY OF ~~COOK~~ McHenry )

On the 12 day of October in the year 2011 before me, the undersigned, a notary public in and for said state, personally appeared **Scott A. Root**, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s) or the person upon behalf of which the individual(s) acted, executed the instrument.



Kimberly A. Coleman  
Notary Public: Kimberly A. Coleman  
My Commission Expires: 4-28-15

LICENSOR ACKNOWLEDGEMENT

STATE OF ILLINOIS )  
 )  
COUNTY OF Cook )

I CERTIFY that on September 1, 2011, Jessica B. Tucker personally came before me and acknowledged under oath that he or she:

- (a) is the Village President [title] of Winnetka, the municipality named in the attached instrument,
- (b) was authorized to execute this instrument on behalf of the municipality and
- (c) executed the instrument as the act of the municipality.



Mary Ivins  
Notary Public  
My Commission Expires: 11/10/14

## EXHIBIT B-1

See attached Construction Drawings comprised of nine pages, dated July 14, 2011, and prepared by Volver International, LLC, 6836 Bee Caves Rd., Suite 258, Austin, TX 78746.

**Notes:**

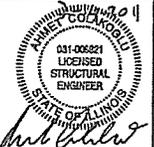
1. UPON ISSUANCE OF ALL APPLICABLE PERMITS, THIS EXHIBIT MAY BE REPLACED BY THE FINAL CONSTRUCTION DRAWINGS, AS APPROVED BY THE VILLAGE FOR PERMIT.
2. ANY SETBACK OF THE PREMISES FROM THE PROPERTY'S BOUNDARIES SHALL BE THE DISTANCE REQUIRED BY THE APPLICABLE GOVERNMENTAL AUTHORITIES.
3. WIDTH OF ACCESS ROAD SHALL BE THE WIDTH REQUIRED BY THE APPLICABLE GOVERNMENTAL AUTHORITIES, INCLUDING POLICE AND FIRE DEPARTMENTS.

# 3C UMTS & LTE PROJECTS

THESE DRAWINGS ARE PREPARED BASED ON RFDS DATED: 06/17/11  
 REVISION: 2.3  
 GENERAL CONTRACTOR TO VERIFY AND INCORPORATE MOST RECENT VERSION OF RFDS WITH "GOODMAN NETWORKS" PRIOR TO CONSTRUCTION.



**SITE NAME:** WINNETKA FIRE STATION  
**SITE NUMBER:** IL1340  
**SITE ADDRESS:** 410 NORTH GREEN BAY ROAD  
 WINNETKA, IL60093  
 (COOK COUNTY)  
**FA CODE:** 10095256



**DESIGNER:** AHMET COLAKOGLU, P.E.  
 LICENSE #081-006821  
 STATE OF ILLINOIS  
 EXPIRES 11-30-2011

**PROJECT INFORMATION**

**APPROVALS**

**SHEET INDEX**

**DESIGN TEAM**

**VICINITY MAP**

**AT&T MOBILITY APPROVAL**

**STATE OF ILLINOIS**

**PROFESSIONAL ENGINEER**

**COVER SHEET**

**WINNETKA FIRE STATION**

**WINNETKA, IL 60093**

**T1.0**

**BUILDING CODES**

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL AUTHORITIES HAVING JURISDICTION:

COOK COUNTY BUILDING AND ENVIRONMENTAL ORDINANCE 1997 EDITION WITH 2009 ADDENDA

**SCOPE OF WORK:** ADD (3) 700 RRU's AND (3) AWS RRU's. REPLACE (3) ANTENNAS WITH (3) NEW LTE ANTENNAS. ADD (3) 1900 RRU'S AND (1) UMS 3RD CARRIER KIT.

**AWSL:** 650'  
**LATITUDE:** 42.06° 9.00"  
**LONGITUDE:** -87° 43' 52.00"  
**JURISDICTION:** VILLAGE OF WINNETKA  
**TELEPHONE CO.:** AT&T  
**POWER CO.:** VILLAGE OF WINNETKA

**APPLICANT/ASSESSOR:**  
**NAME:** AT&T MOBILITY  
**ADDRESS:** 930 NATIONAL PKWY, 4TH FLOOR  
 Schaumburg, IL 60173  
**CITY, STATE ZIP:**  
**CONTACT:**  
**PHONE:**  
**EMAIL:**

**TOWER OWNER:**  
**NAME:** VILLAGE OF WINNETKA  
**ADDRESS:** 510 GREEN BAY ROAD  
 WINNETKA, IL 60093  
**CITY, STATE ZIP:**  
**CONTACT:**  
**PHONE:**  
**EMAIL:**

**PROPERTY OWNER:**  
**NAME:**  
**ADDRESS:**  
**CITY, STATE ZIP:**  
**CONTACT:**  
**PHONE:**  
**EMAIL:**

AT&T CONSTRUCTION MGR.	DATE	GOODMAN ENGINEER	DATE
GOODMAN CONSTRUCTION MGR.	DATE	CONTRACTOR	DATE
PROPERTY OWNER	DATE	CONTRACTOR	DATE

**DRIVING DIRECTIONS**

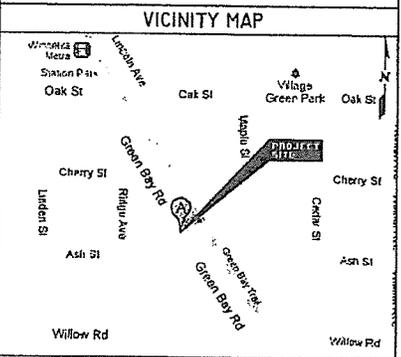
**DRAWING DIRECTIONS:**  
 FROM CHICAGO, TAKE I-94 [EDENS EXPY W] / MILWAUKEE, AT EXIT 33B, TURN RIGHT ONTO RAMP 0.1 MILE EAST WILLOW RD, BEAR RIGHT (EAST) ONTO WILLOW RD 1.9 MILE, TURN LEFT (NORTH) ONTO GREEN BAY RD 0.1 MILE, ARRIVE IL1340

**DESIGN TEAM**

**DESIGNER:**  
**NAME:** GOODMAN NETWORKS, INC.  
**ADDRESS:** 6400 INTERNATIONAL PKWY, SUITE 1000  
 PLANO, TX 75093  
**CITY, STATE ZIP:**  
**CONTACT:** WILLIAM D. MCGEEHEE  
**PHONE:** 972.408.9692  
**EMAIL:** wmcgeehe@goodmannetworks.com

**ENGINEER:**  
**NAME:** VOLVER INTERNATIONAL, LLC.  
**ADDRESS:** 6836 BEE CAVES RD, SUITE 25B  
 AUSTIN, TX 78746  
**CITY, STATE ZIP:**  
**CONTACT:** TIM MARTIN  
**PHONE:** 512.617.6327  
**EMAIL:** tmartin@volver.us.com

NO.	DESCRIPTION	REV
T1.0	COVER SHEET	3
N1.0	GENERAL NOTES	2
A1.0	COMPOUND PLAN	2
A1.1	EQUIPMENT LAYOUT	2
A2.0	TOWER ELEVATION AND ANTENNA ORIENTATION	2
A3.0	NOT USED	2
A3.1	NOT USED	2
A3.2	NOT USED	2
A4.0	ANTENNA DETAILS	2
A5.0	CABLE MARKING DETAIL	2
E1.0	ELECTRICAL PLAN	2
E2.0	ELECTRICAL DETAILS	2



**IF YOU DIG IN ANY STATE**  
 DIAL 811 FOR THE LOCAL  
 "ONE CALL CENTER" -  
 IT'S THE LAW

THE VILLAGE BOARD HAS REVIEWED THE CONTRACTOR'S PROPOSAL AND HAS GRANTED APPROVAL TO PROCEED WITH THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OBTAINING OF ALL NECESSARY PERMITS AND FOR THE OBTAINING OF ALL NECESSARY APPROVALS FROM THE LOCAL AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OBTAINING OF ALL NECESSARY APPROVALS FROM THE LOCAL AUTHORITIES HAVING JURISDICTION.

**AT&T MOBILITY APPROVAL**

REAL ESTATE OF \_\_\_\_\_  
 OPERATION OF \_\_\_\_\_

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE THEY COMPLY WITH THE COOK COUNTY BUILDING AND ENVIRONMENTAL ORDINANCE 1997 EDITION WITH 2009 ADDENDA.

*Ahmet Colakoglu* 7-14-2011

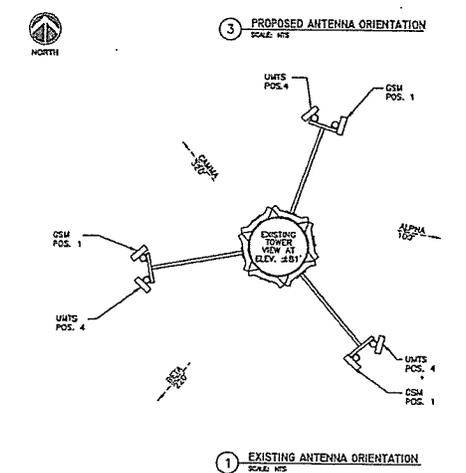
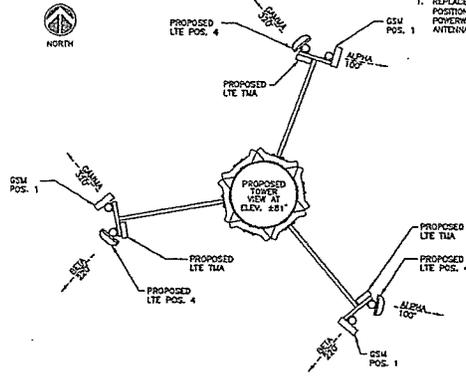
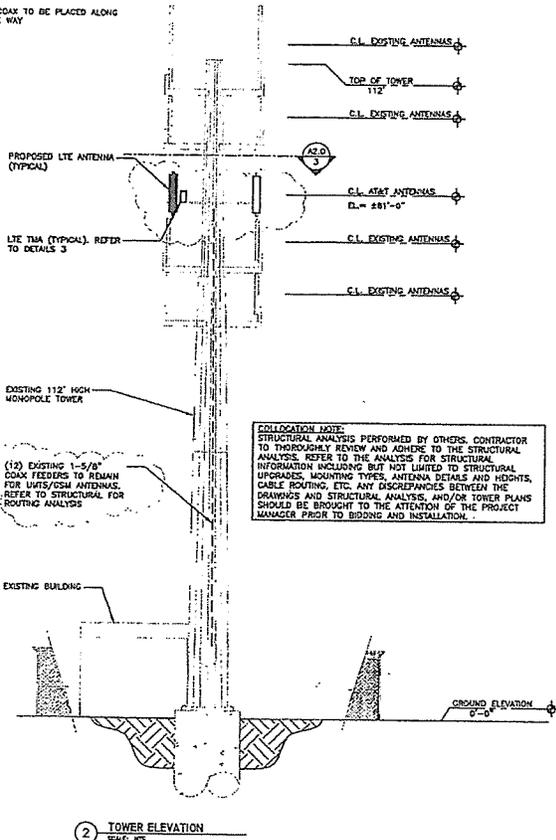
AHMET COLAKOGLU, P.E.  
 ILLINOIS STRUCTURAL ENGINEER, LICENSE #081-006821  
 EXPIRES: 11-30-2011



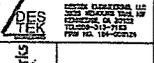
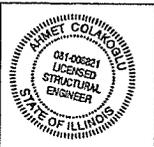




NOTES:  
1. NO COAX TO BE PLACED ALONG WALK WAY



NOTES:  
1. REPLACE (3) UNITS ANTENNAS IN POSITION 4 WITH (3) LTE POWERWAVE P65-15-XLH-RR ANTENNAS



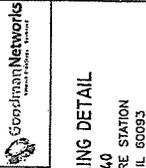
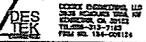
at&t  
WINNETKA FIRE STATION  
ILL340  
WINNETKA, IL 60093

DESCRIPTION:  
DATE: 3/13/10  
DRAWN BY: [Name]  
CHECKED BY: [Name]  
DATE: 3/13/10  
PROJECT NO.: [Number]  
SHEET NO.: [Number] OF [Total]  
SCALE: AS SHOWN

PROJECT NO.: [Number]  
SHEET NO.: [Number] OF [Total]  
SCALE: AS SHOWN

A2.0





**CABLE MARKING DETAIL**  
 ILLINOIS  
 WINNETKA FIRE STATION  
 WINNETKA, IL 60093

DATE: 08/07/11  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT: [Name]

DESCRIPTION: [Text]  
 SCALE: [Text]

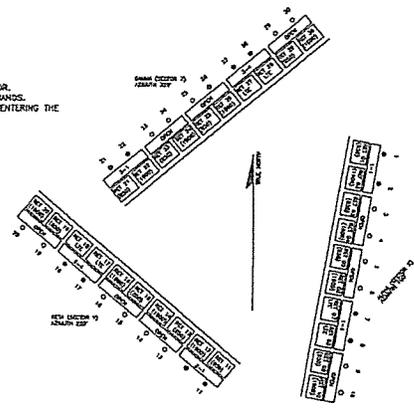
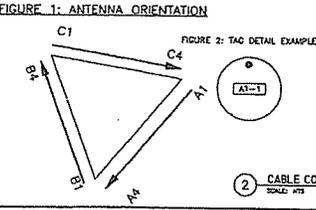
A5.0

ALPHA, A, X, #1	A1-1	A1-2	A2-1	A2-2	A3-1	A3-2	A4-1	A4-2
SECTOR ANTENNA PORT (+/-)	+45	-45	+45	-45	+45	-45	+45	-45
BAND (850 / 1900)	RED	RED	ORANGE	ORANGE	BROWN	BROWN	RED	RED
	WHITE	WHITE	ORANGE	ORANGE	BROWN	BROWN	VIOLET	VIOLET
	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN
	ORANGE / VIOLET							
BETA, B, Y, #2	B1-1	B1-2	B2-1	B2-2	B3-1	B3-2	B4-1	B4-2
SECTOR ANTENNA PORT	+45	-45	+45	-45	+45	-45	+45	-45
BAND (850 / 1900)	BLUE							
	WHITE	WHITE	ORANGE	ORANGE	BROWN	BROWN	VIOLET	VIOLET
	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN
	ORANGE / VIOLET							
GAMMA, C, Z, #3	C1-1	C1-2	C2-1	C2-2	C3-1	C3-2	C4-1	C4-2
SECTOR ANTENNA PORT	+45	-45	+45	-45	+45	-45	+45	-45
BAND (850 / 1900)	GREEN							
	WHITE	WHITE	ORANGE	ORANGE	BROWN	BROWN	VIOLET	VIOLET
	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN
	ORANGE / VIOLET							
DELTA, D, #4	D1-1	D1-2	D2-1	D2-2	D3-1	D3-2	D4-1	D4-2
SECTOR ANTENNA PORT	+45	-45	+45	-45	+45	-45	+45	-45
BAND (850 / 1900)	YELLOW							
	WHITE	WHITE	ORANGE	ORANGE	BROWN	BROWN	VIOLET	VIOLET
	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN
	ORANGE / VIOLET							

NOTE: ALL COLOR CODE TAPE SHALL BE 3/8" WIDE AND SHALL BE INSTALLED USING A MINIMUM OF (3) WRAPS OF TAPE.  
 NOTE: ALL COLOR BANDS INSTALLED AT THE TOWER TOP SHALL BE A MINIMUM OF 3" WIDE AND SHALL HAVE A MINIMUM OF 3/4" OF SPACING BETWEEN EACH COLOR.  
 NOTE: ALL COLOR BANDS INSTALLED AT OR NEAR THE GROUND MAY BE ONLY 3/4" WIDE. EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.  
 NOTE: EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH 3/4" COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.  
 NOTE: ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" BANDS ON EACH AND OF THE BOTTOM JUMPER.  
 NOTE: ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM EDGE-TO-EDGE.  
 NOTE: EACH COLOR BAND SHALL HAVE A MINIMUM OF (3) WRAPS AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.  
 NOTE: X-POLE ANTENNAS SHOULD USE "00-1" FOR THE "+45" PORT, "XX-2" FOR THE "-45" PORT.  
 NOTE: COLOR BAND #4 REFERS TO THE FREQUENCY BAND: ORANGE=850, VIOLET=1900, USED ON JUMPERS ONLY.  
 NOTE: RF FEEDLINE SHALL BE IDENTIFIED WITH A METAL TAG (STAINLESS OR BRASS) AND STAMPED WITH THE SECTOR, ANTENNA POSITION, AND CABLE NUMBER.  
 NOTE: ANTENNAS MUST BE IDENTIFIED, USING THE SECTOR LETTER AND ANTENNA NUMBER, WITH A BLACK MARKER PRIOR TO INSTALLATION.

**CABLE MARKING TAGS**  
 TO PROVIDE ADDITIONAL IDENTIFICATION RF CABLES SHALL BE IDENTIFIED WITH A METAL TAG MADE OF STAINLESS STEEL OR BRASS AND STAMPED WITH THE SECTOR, ANTENNA POSITION, AND CABLE NUMBER. THE TAG MARKING LOCATIONS SHOULD BE AS PER "CABLE MARKING LOCATIONS TABLE". THE TAG SHOULD BE ATTACHED WITH CORROSION PROOF WIRE OR WAX STRAP AROUND THE CABLE. THE TAG SHOULD BE LABELED AS SHOWN BELOW IN FIGURE 2.

TYPE	TAG	LOCATIONS
X		EACH TOP JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
X		EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.
X		MARKING TAGS SHALL BE ATTACHED AT CABLE ENTRY POINT ON THE INTERIOR OF THE SHELTER
X		ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF BOTTOM JUMPER.



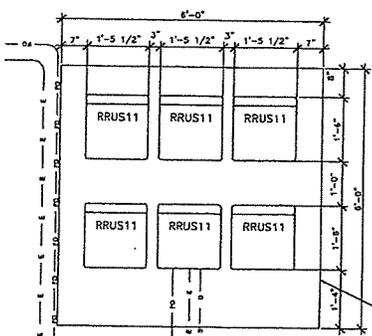
1 ANTENNA PLATFORM ASSIGNMENT  
 SCALE: NTS

**GROUNDING NOTES:**

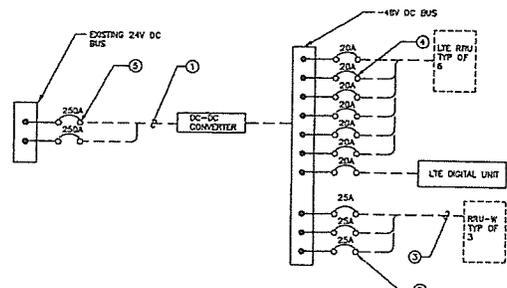
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE AND UL APPROVED GROUNDING TYPE CONDUIT CLAMPS PER NEC AND AT&T NO-00071.
- CONNECTIONS TO THE GROUND BAR SHALL NOT BE DOUBLED UP OR STACKED. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BARS ARE PERMITTED.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH NEC, SHALL BE FURNISHED AND INSTALLED WITH POWER CIRCUITS TO BTS EQUIPMENT.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED. IN ALL CASES, BENDS SHALL BE MADE WITH A MINIMUM BEND RADIUS OF 8 INCHES.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH NEC.
- GROUND ALL RF EQUIPMENT INCLUDING BUT NOT LIMITED TO COAX, DEXLERS, SURGE ARRESTORS, TIA'S, ANTENNAS, AND ANTENNA MAST PER NEC AND AT&T NO-00071.

**ELECTRICAL NOTES:**

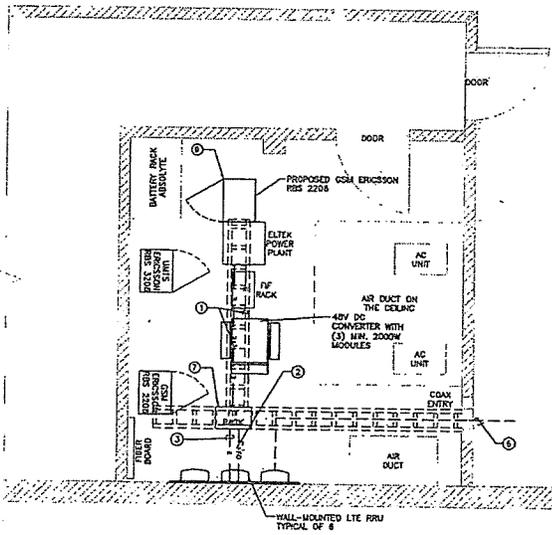
- PROVIDE (4) #1/0 AWG STRANDED COPPER CONDUCTORS FROM THE EXISTING 24V DC POWER PLANT TO THE PROPOSED DC-DC CONVERTER.
- PROVIDE (1) SINGLE PAIR FIBER OPTIC JUMPER FROM LTE DIGITAL UNIT TO EACH RRU. SEE A&D FOR MORE INFORMATION.
- PROVIDE 2-CONDUCTOR DC CABLES FOR EACH RRU.
- PROVIDE (1) 20A DC CIRCUIT BREAKER PER LTE RRU AND (1) 20A DC CIRCUIT BREAKER FOR THE DIGITAL UNIT.
- PROVIDE (2) 250A DC CIRCUIT BREAKERS FOR THE PROPOSED DC-DC CONVERTER.
- COAX FEEDER TO LTE ANTENNA TYPICAL REFER TO RFD'S.
- PROPOSED LTE DIGITAL UNIT (DU) AND (OPTIONAL) AROUS DC-DC CONVERTER TO BE INSTALLED WITHIN EXISTING P/F RACK.
- PROVIDE (1) 25A DC CIRCUIT BREAKER PER UNIT'S 1500 RRU. COORDINATE OVER-CURRENT PROTECTION REQUIREMENTS WITH MANUFACTURER.
- COORDINATE WITH USA DOCUMENT AND CONSTRUCTION MANAGER FOR PROVISION OF DC POWER FOR 2206 CABINET.



3 LTE RRU WALL ELEVATION  
SCALE: NTS



2 DC ONE LINE DIAGRAM  
SCALE: NTS



1 ELECTRICAL PLAN  
SCALE: 1/2" = 1'-0"



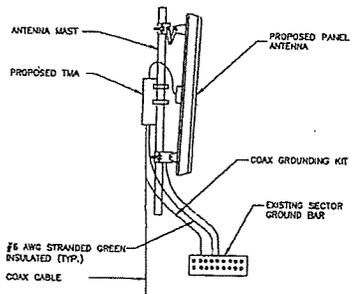
DESIGNER  
Volver Electrical Engineering  
1111 N. W. 11th St.  
Fort Lauderdale, FL 33304  
Phone No. 305-555-1111  
Fax No. 305-555-1114

Goodman Networks  
at&t

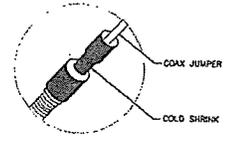
**ELECTRICAL PLAN**  
IL1540  
WINNETKA FIRE STATION  
WINNETKA, IL 60093

DATE:	06/07/10
BY:	CS/JAL
DESCRIPTION:	ISSUED FOR CONSTRUCTION - (CABINETS, D.C. & LTE RACKS)
SCALE:	AS SHOWN
PROJECT NO.:	031-008221
PROJECT NAME:	WINNETKA FIRE STATION
PROJECT ADDRESS:	1111 N. W. 11th St., Fort Lauderdale, FL 33304
PROJECT PHONE:	305-555-1111
PROJECT FAX:	305-555-1114
PROJECT EMAIL:	colakolek@volver.com

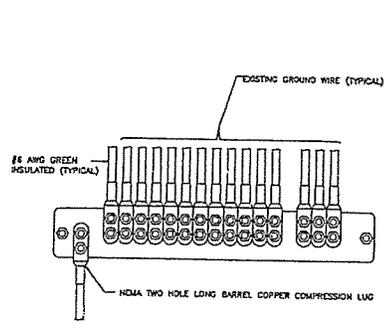
E1.0



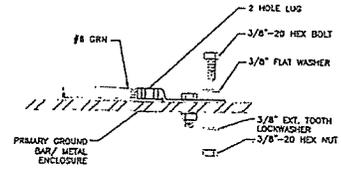
5 GROUNDING SCHEMATIC FOR LTE EQUIPMENT  
SCALE: NTS



4 WEATHERPROOFING-WEATHERTIGHT SEAL  
SCALE: NTS

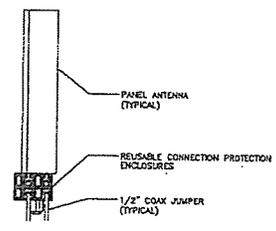


3 TYPICAL UPPER GROUND BAR DETAIL  
SCALE: NTS

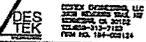


- INSTALLATION NOTES:
1. SELECT BOLT LENGTH TO PROVIDE A MINIMUM OF TWO EXPOSED THREADS.
  2. BURNISH MOUNTING SURFACE TO REMOVE PAINT IN THE AREA OF LUG CONTACT.
  3. APPLY ANTI-OXIDANT COMPOUND TO MATING SURFACE OF LUG AND WIPE CLEAN EXCESS COMPOUND.
  4. USE SQUID COPPER WIRE AND MECHANICAL 2-HOLE LUG FOR ALL EXTERIOR GROUNDING.

2 MECHANICAL GROUND CONNECTION  
SCALE: NTS



1 WEATHERPROOFING-WEATHER SHIELD DETAIL  
SCALE: NTS



at&t  
at&t  
at&t

at&t  
at&t

DATE: 08/17/10	DESCRIPTION: 1. DASH THE CONDUIT TO THE PANEL ANTENNA AND SECURE WITH THE PROTECTIVE ENCL.
BY: [Signature]	PROJECT: WINNETKA FIRE STATION
CHECKED: [Signature]	DATE: 08/17/10
SCALE: CD	PROJECT: WINNETKA FIRE STATION

E2.0

Market: Central Region  
Cell Site Number: IL1340  
Cell Site Name: Winnetka Fire Station  
Fixed Asset Number: 10095256

## SECOND AMENDMENT TO 1996 LICENSE AGREEMENT BETWEEN THE VILLAGE OF WINNETKA AND NEW CINGULAR WIRELESS

THIS SECOND AMENDMENT TO WINNETKA LICENSE AGREEMENT (“**Second Amendment**”), dated as of the latter of the signature dates below, is by and between the Village of Winnetka, an Illinois home rule municipality, having a mailing address of 510 Green Bay Road, Winnetka, IL 60093 (hereinafter referred to as “**Licensor**”) and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Dr., 13-F West Tower, Atlanta, GA 30324 (“**Licensee**”).

WHEREAS, Licensor and Licensee entered into a Winnetka License Agreement dated August 20, 1996 (“1996 Agreement”), and amended by the First Amendment dated November 1, 2011 (“First Amendment”), whereby Licensor leased to Licensee certain Premises, therein described, that are a portion of the Property located at 410 Green Bay Road, Winnetka, Illinois 60093 (jointly, “**Agreement**”); and

WHEREAS, Licensor and Licensee desire to further amend the Agreement to allow for the installation of additional antennas, associated cables and other communications instruments; and

WHEREAS, Licensor and Licensee desire to adjust the License Fees in conjunction with the modifications to the Agreement contained herein; and

WHEREAS, Licensor and Licensee, in their mutual interest, wish to amend the Agreement as set forth below accordingly.

NOW THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Licensor and Licensee agree as follows:

1. **Licensee Facilities.** The definition of Licensee Facilities in Section 1 of the License Agreement shall be amended to include the attached Exhibit 1A, as if fully set forth therein. Licensor agrees to grant Licensee the right to replace the three existing antennas on the Existing Tower with three new antennas, each measuring 51’’x12’’x7’’, all as depicted on attached Exhibit 1A, subject to the following conditions:

(a) Licensee shall obtain all necessary permits required pursuant to Title 15 of the Winnetka Village Code, and shall submit final construction plans for review and approval, and for issuance of such permits;

(b) the antennas shall be painted the same color as the existing antennas;

(c) there shall be no additional coaxial cable feeding the antennas; and

(d) the antennas and other equipment permitted by Exhibit B of the 1996 Agreement and Exhibit B-1 of the First Amendment shall be removed and shall not be replaced except by the antennas and related equipment depicted in Exhibit 1A.

2. **License Fee.** Subsection (a) of Section 6, "License Fees," of the Agreement is hereby deleted and replaced with the following:

(a) On October 1, 2013, or on the date this Second Amendment is executed, whichever is earlier, Licensee shall pay the Licensor Five Thousand Five Hundred Dollars (\$5,500.00) ("Additional Fee"), which shall be in addition to the License Fee that was due and payable on the 2013 anniversary of the "Commencement Date" ("2013 License Payment"). The sum of the 2013 License Payment and the Additional Fee shall be the "License Fee," which License Fee shall be subject to further adjustments as provided in the following subsection (b).

3. **Other Terms and Conditions Remain.** In the event of any inconsistencies between the Agreement and this Second Amendment, the terms of this Second Amendment shall control. Except as expressly set forth in this Amendment, the Agreement otherwise is unmodified and remains in full force and effect. Each reference in the Agreement to itself shall be deemed also to refer to this Second Amendment.

4. **Capitalized Terms.** All capitalized terms used but not defined herein shall have the same meanings as defined in the Agreement.

5. **Licensee Representations.** Licensee represents that it has taken all steps necessary under law to enter into and be bound by this Second Amendment, and to authorize and empower Licensee's Real Estate & Construction Manager-IL/WI to sign this Second Amendment on Licensee's Behalf.

*[Signatures on following page]*

(The rest of this page is intentionally blank)

IN WITNESS WHEREOF, the parties have caused their properly authorized representatives to execute and seal this Amendment on the dates set forth below.

**“LICENSOR”**

Village of Winnetka

By:   
Name: E. Gene Greable  
Title: Village President  
Date: 10/28, 2013

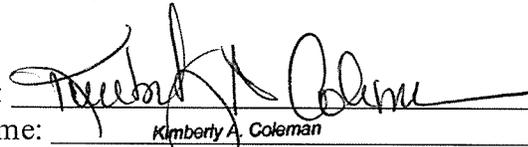
ATTEST:

  
Village Clerk

**“LICENSEE”**

New Cingular Wireless PCS, LLC,  
a Delaware limited liability company

By: AT&T Mobility Corporation  
Its: Manager

By:   
Name: Kimberly A. Coleman  
Title: Sr Real Estate & Construction Manager  
Date: 10-17, 2013

LICENSEE ACKNOWLEDGEMENT

STATE OF Illinois )  
COUNTY OF Cook ) ss:

On the 17<sup>th</sup> day of October in the year 2013 before me, the undersigned, a notary public in and for said state, personally appeared Kimberly A. Coleman, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that (s)he is authorized to execute the instrument and acknowledged it as the Area Manager of Real Estate and Construction of AT&T Mobility Corporation, the Manager of New Cingular Wireless PCS, LLC, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument..



Lisa M. Castello  
Notary Public: Lisa M. Castello  
My Commission Expires: 11/8/15

LICENSOR ACKNOWLEDGEMENT

INDIVIDUAL ACKNOWLEDGEMENT

STATE OF Illinois )  
COUNTY OF Cook ) ss:

BE IT REMEMBERED, that on this 27<sup>th</sup> day of Oct, 2013 before me, the subscriber, a person authorized to take oaths in the State of \_\_\_\_\_, personally appeared E. Gene Greable who, being duly sworn on his/her oath, deposed and made proof to my satisfaction that he/she is the person(s) named in the within instrument; and I, having first made known to him/her the contents thereof, he/she did acknowledge that he/she signed, sealed and delivered the same as his/her/their voluntary act and deed for the purposes therein contained.



Mary Ivins  
Notary Public: Mary Ivins  
My Commission Expires: 11/10/14

## EXHIBIT 1A

See attached exhibit comprised of 9 pages, last revised 6/6/2013, prepared by Apex Engineers, Inc.

**NOTE:** To avoid the disclosure of proprietary technical and engineering detail, the 9-page exhibit has been intentionally omitted from these agenda materials.

Notes:

1. UPON ISSUANCE OF ALL APPLICABLE PERMITS, THIS EXHIBIT MAY BE REPLACED BY THE FINAL CONSTRUCTION DRAWINGS, AS APPROVED BY THE VILLAGE FOR PERMIT.
2. ANY SETBACK OF THE PREMISES FROM THE PROPERTY'S BOUNDARIES SHALL BE THE DISTANCE REQUIRED BY THE APPLICABLE GOVERNMENTAL AUTHORITIES.
3. WIDTH OF ACCESS ROAD SHALL BE THE WIDTH REQUIRED BY THE APPLICABLE GOVERNMENTAL AUTHORITIES, INCLUDING POLICE AND FIRE DEPARTMENTS.

**PROJECT INFORMATION**

APPLICANT: AT&T  
930 NATIONAL PARKWAY  
SCHAUMBURG, IL 60173

FA CODE: 10095256

PROPOSED USE: TELECOMMUNICATIONS FACILITY

STRUCTURE TYPE: MONOPOLE

SITE ADDRESS: 410 NORTH GREEN BAY ROAD  
WINNETKA, IL60093

PROPERTY OWNER: TBD

CONTACT PERSON: TBD

PARCEL NUMBER: TBD

JURISDICTION: COOK COUNTY

LATITUDE: 42° 6' 9" N

LONGITUDE: 87° 43' 52" W

LAT/ LONG TYPE: NAD 83

GROUND ELEVATION: 650 FT AMSL

POWER COMPANY: COMED

PHONE: (800) 334-7661

TELEPHONE COMPANY: AT&T

PHONE: (800) 257-0902



at&t

**SITE NUMBER: IL1340**  
**SITE NAME: WINNETKA FIRE STATION**

PROJECT:  
LTE2C

PROJECT DESCRIPTION:  
INSTALL NEW LTE ANTENNA,  
LEAVE EXISTING LTE RRUS 700 ON COAX & ADD NEW RRUS AWS.

**AT&T APPROVAL**

SITE ACQUISITION MANAGER: \_\_\_\_\_ Date \_\_\_\_\_

NSORO CONSTRUCTION MANAGER: \_\_\_\_\_ Date \_\_\_\_\_

NSORO SA PROJECT MANAGER: \_\_\_\_\_ Date \_\_\_\_\_

NSORO SA SPECIALIST: \_\_\_\_\_ Date \_\_\_\_\_

NSORO COMPLIANCE MANAGER: \_\_\_\_\_ Date \_\_\_\_\_

AT&T RF PROJECT MANAGER: \_\_\_\_\_ Date \_\_\_\_\_

AT&T PROJECT MANAGER: \_\_\_\_\_ Date \_\_\_\_\_

**AT&T MOBILITY APPROVAL**

Real Estate \_\_\_\_\_ Date \_\_\_\_\_

RF \_\_\_\_\_ Date \_\_\_\_\_

Operation \_\_\_\_\_ Date \_\_\_\_\_

**LTE PROJECT**

1ST carrier

2ND carrier

3RD carrier

4TH carrier

DRAWING INDEX	REV
IL1340-01 TITLE SHEET	0
IL1340-02 SITE PLAN	0
IL1340-03 TOWER ELEVATION & ANTENNAS LAYOUT	0
IL1340-04 EQUIPMENT LAYOUT	0
IL1340-05 CONSTRUCTION DETAILS	0
IL1340-06 GROUNDING DETAILS	0
IL1340-07 ANTENNA MATRIX	0
IL1340-08 COAX COLOR CODING	0
IL1340-09 GENERAL NOTES	0

THESE DRAWINGS ARE PREPARED BASED ON RFDS DATED 03/26/2013 REVISION #V02.6  
GENERAL CONTRACTOR TO VERIFY AND INCORPORATE MOST RECENT VERSION OF RFDS PRIOR TO CONSTRUCTION.

**VICINITY MAP**

DIRECTIONS: DEPART O'HARE INTERNATIONAL-TAKE RAMP (RIGHT) ONTO I-190 E. TAKE EXIT 10 TOWARD I-294 S/INDIANA'S TOLLWAY. MERGE ONTO I-294/ I-90 W / MILWAUKEE / ROCKFORD. TURN RIGHT ONTO RAMP WILLOW RD. KEEP RIGHT TO STAY ON RAMP 54 YDS GLENMEW / NORTHBROOK. BEAR RIGHT (EAST) ONTO WILLOW RD. ROAD NAME CHANGES TO NEW WILLOW RD (WILLOW RD). ROAD NAME CHANGES TO WILLOW RD, TURN LEFT (NORTH) ONTO GREEN BAY RD , ARRIVE IL1340.

**APPLICABLE BUILDING CODES AND STANDARDS**

CONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

BUILDING CODE:  
[INTERNATIONAL BUILDING CODE (IBC), 2006 AS ADOPTED BY LOCAL BUILDING AUTHORITY]

ELECTRICAL CODE:  
[NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70-2002;  
2008 NATIONAL ELECTRICAL CODE AS ADOPTED BY LOCAL BUILDING AUTHORITY]

LIGHTNING PROTECTION CODE:  
[NFPA 780 - 2000, LIGHTNING PROTECTION CODE]

CONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS. AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE  
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION  
TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F, STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES;  
TIA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS  
INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM  
IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT  
IEEE C82.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND "HIGH SYSTEM EXPOSURE")

TELCORDIA GR-1275, GENERAL INSTALLATION REQUIREMENTS  
TELCORDIA GR-1503, COAXIAL CABLE CONNECTIONS

ANSI T1.311, FOR TELECOM - DC POWER SYSTEMS - TELECOM, ENVIRONMENTAL PROTECTION FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

**HANDICAPPED REQUIREMENTS**  
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.  
HANDICAP ACCESS REQUIREMENTS NOT REQUIRED

**PLUMBING REQUIREMENTS**  
FACILITY HAS NO PLUMBING

**FIRE PROTECTION NOTE**  
BUILDING HAS EXISTING SPRINKLER SYSTEM

**UTILITIES**

**SITE QUALIFICATION PARTICIPANTS**

	NAME	COMPANY	NUMBER
A/E	SATISH PATEL	APEX ENGINEERS, INC.	(630) 627-1800
SA			
RF	SAEED MIR	AT&T MOBILITY	(847) 762-2263
PM	BEZA ASSEGU	NSORO	(847) 463-5909
CM		NSORO	

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE THEY COMPLY WITH THE REQUIREMENT OF ALL APPLICABLE CODES AND ORDINANCES.

SATISHKUMAR C. PATEL, S.E.  
ILLINOIS S.E. LICENSE # 081-004998  
EXPIRES 11-30-2014

**nsoro**  
It's just good business.  
A MasTec COMPANY

3100 Tollfree Drive  
Rolling Meadows, Illinois 60008

**Apex Engineers, Inc.**  
Structural & Civil Engineers  
500 East 22nd Street, Suite B  
Lombard, Illinois 60148  
Ph. (630) 627-1800  
Fax. (630) 627-1165

APEX JOB No. GT08-205

**WINNETKA FIRE STATION**  
SITE NO. IL1340  
SITERRA NO. 271-A  
410 NORTH GREEN BAY ROAD  
WINNETKA, IL60093

at&t

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	06/06/13	ISSUED FOR CONSTRUCTION	LM	LM	SP
A	04/05/13	ISSUED FOR REVIEW	YA	LM	SP

SCALE: AS SHOWN    DESIGNED BY: XX    DRAWN BY: XX

**AT&T MOBILITY**

TITLE SHEET

DRAWING NUMBER	REV
IL1340-01	0

6

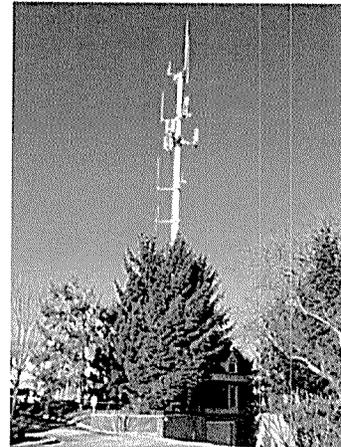
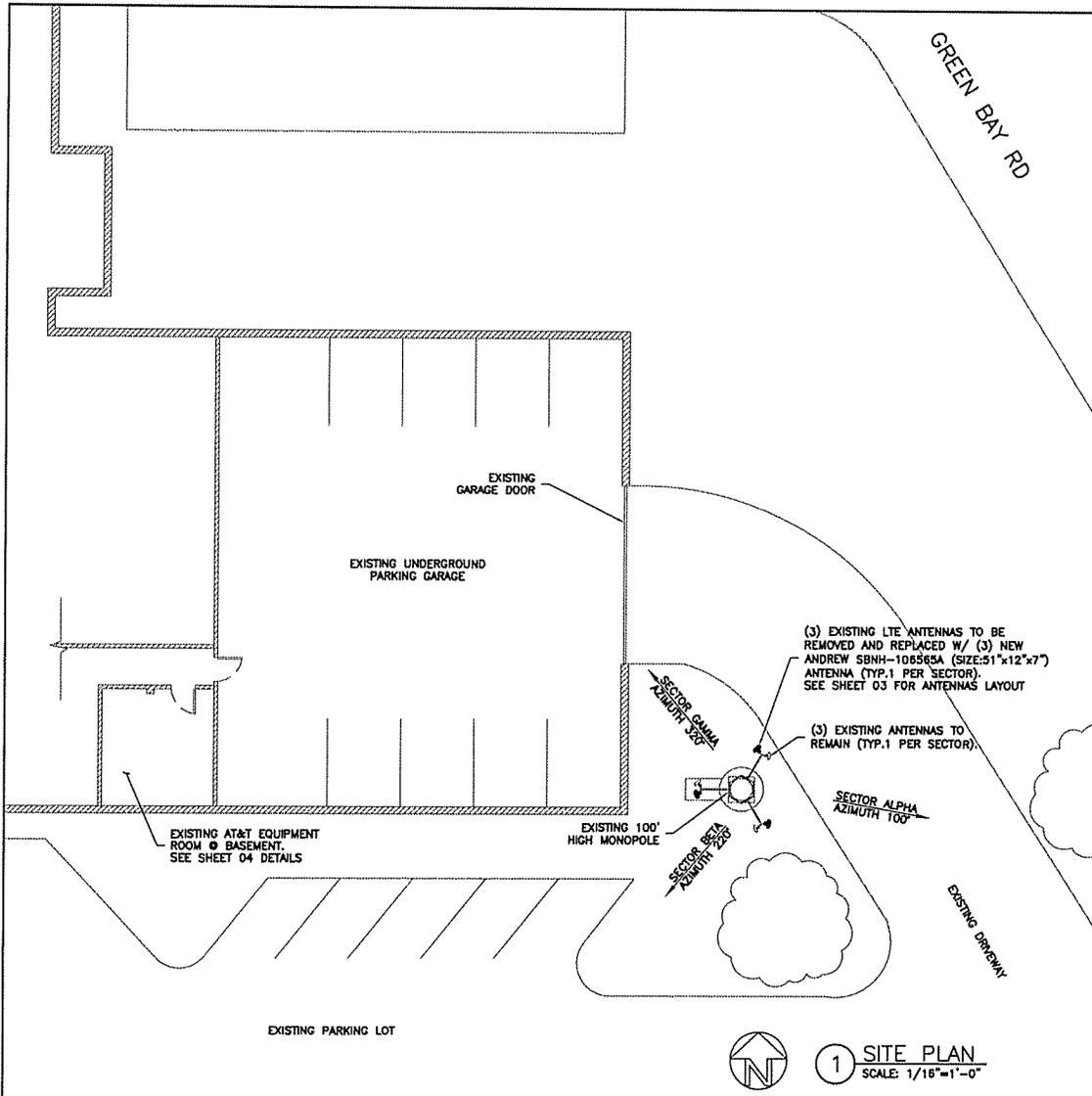
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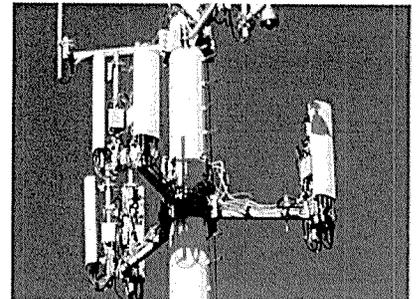
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2

11 of 17 8 52



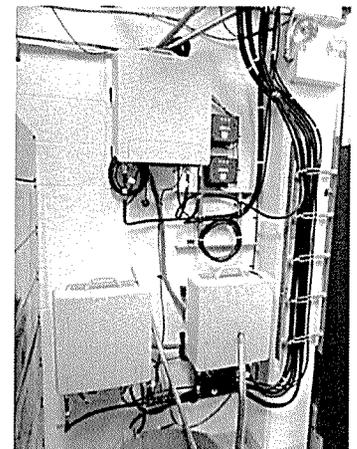
TOWER ELEVATION



EXISTING AT&T ANTENNAS VIEW



SHELTER INSIDE



EXISTING LTE RRUS 700

1 SITE PLAN  
SCALE: 1/16"=1'-0"



**nsoro**  
It's just good business.  
A Mastec COMPANY  
3100 Tollview Drive  
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APEX JOB No. GT08-205

WINNETKA FIRE STATION  
SITE NO. IL1340  
SITERRA NO. 271-A  
410 NORTH GREEN BAY ROAD  
WINNETKA, IL60093



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AT&T MOBILITY

SITE PLAN

DRAWING NUMBER	REV
IL1340-02	0

6

5

4

3

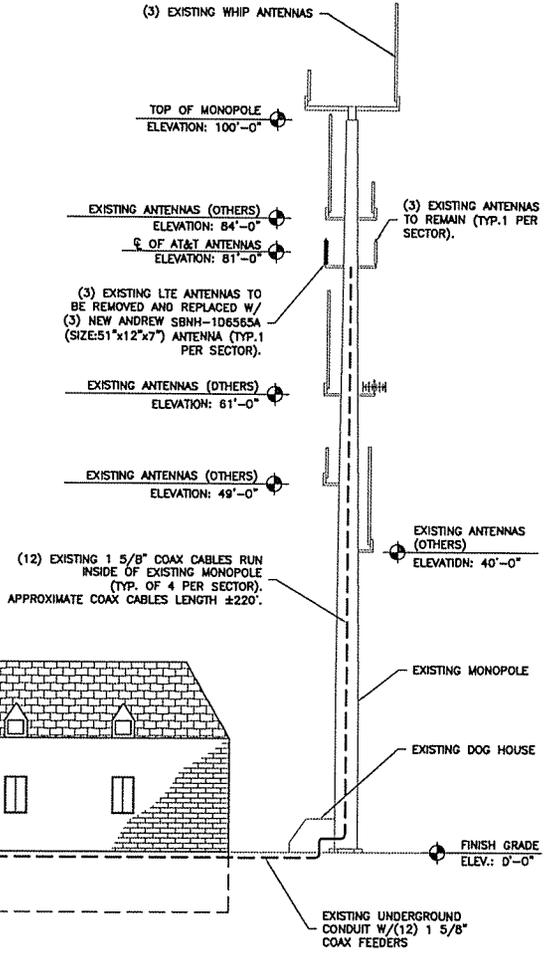
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11 x 17 1/2 302

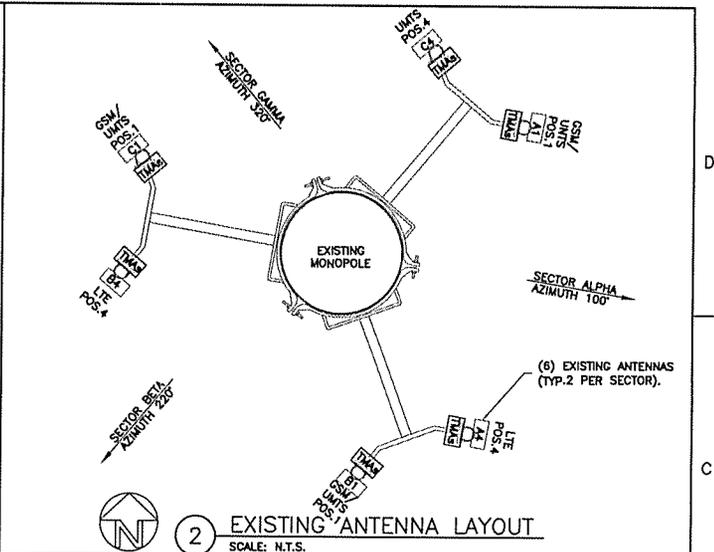
**NOTE:**  
 1. REFER TO RF DESIGN SHEET / ANTENNA CONFIGURATION DRAWING / RET CONTROL DIAGRAM & INSTALL AS REQUIRED UPPER TMA'S, LOWER DIPLEXERS, BIAS-T, PDU's, RET CONTROLLER & HR CABLE, MCU, BOTTOM JUMPERS, GSM 850 RADIO'S, LRU CABLES, 50OHM LOADS OR TERMINATION CAPS  
 2. ALL ANTENNA AZIMUTH TO BE FROM TRUE NORTH

STRUCTURAL ANALYSIS BY OTHERS

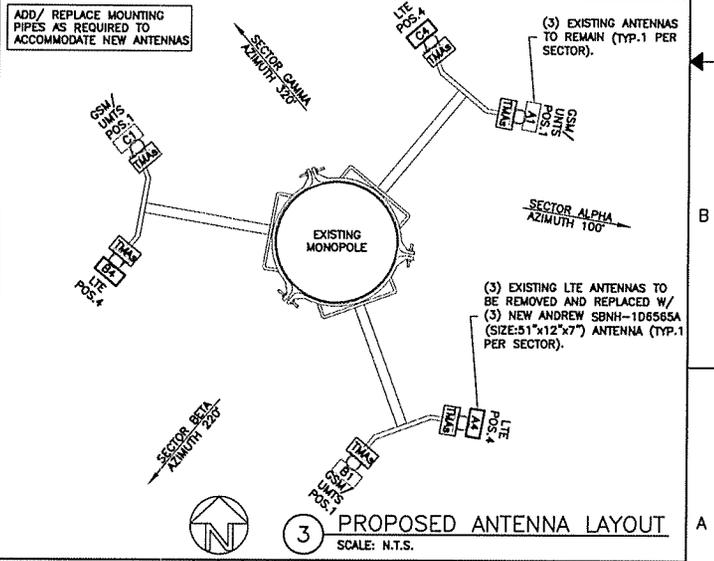
**NOTE:**  
 NEW ANTENNAS TO MATCH THE CURRENT COLOR SCHEME.



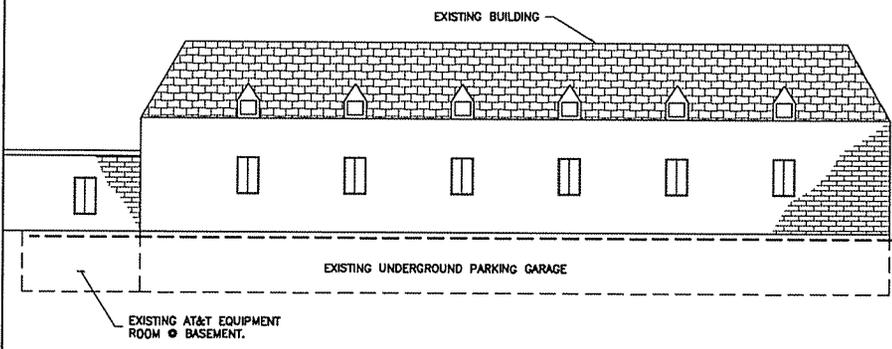
1 TOWER ELEVATION  
 SCALE: 1/16"=1'-0"



2 EXISTING ANTENNA LAYOUT  
 SCALE: N.T.S.



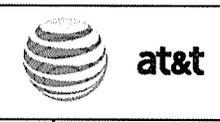
3 PROPOSED ANTENNA LAYOUT  
 SCALE: N.T.S.



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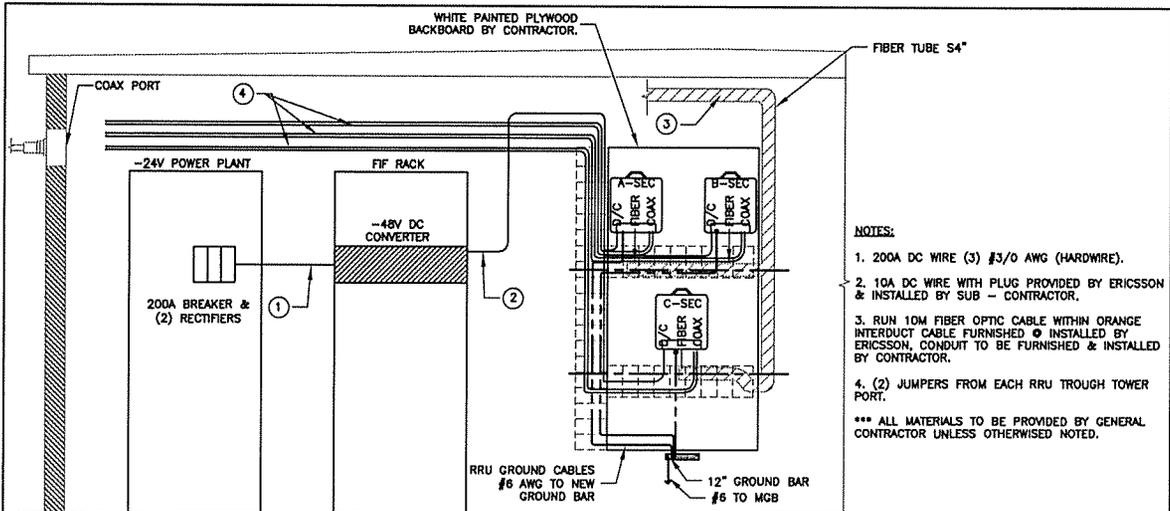
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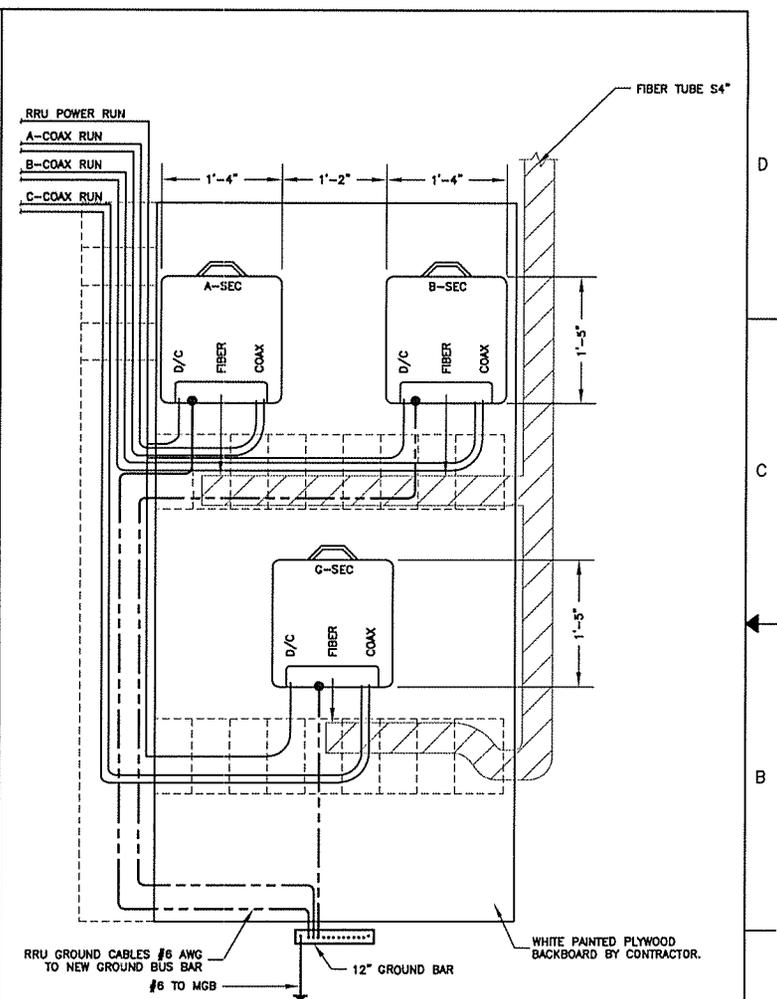
AT&T MOBILITY	
TOWER ELEVATION & ANTENNA LAYOUT	
DRAWING NUMBER	REV
IL1340-03	0



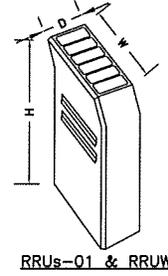


- NOTES:
- 200A DC WIRE (3) #3/0 AWG (HARDWIRE).
  - 10A DC WIRE WITH PLUG PROVIDED BY ERICSSON & INSTALLED BY SUB - CONTRACTOR.
  - RUN 10M FIBER OPTIC CABLE WITHIN ORANGE INTERDUCT CABLE FURNISHED & INSTALLED BY ERICSSON, CONDUIT TO BE FURNISHED & INSTALLED BY CONTRACTOR.
  - (2) JUMPERS FROM EACH RRU TROUGH TOWER PORT.
- \*\*\* ALL MATERIALS TO BE PROVIDED BY GENERAL CONTRACTOR UNLESS OTHERWISE NOTED.

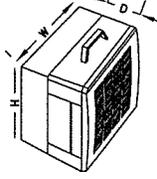
1 SHELTER LAYOUT ELEVATION  
SCALE: N.T.S.



3 UTILITY FRAME  
SCALE: N.T.S.



RRUs-01 & RRUW



RRUs-11

SIZE AND WEIGHT TABLE

RRU	WIDTH	DEPTH	HEIGHT	WEIGHT W/O BRACKET
RRUS-01/RRUW WITHOUT SOLAR SHIELD	13.8"	4.4"	23.6"	39 LBS
RRUS-01/RRUW WITH SOLAR SHIELD	15.1"	6.7"	25.0"	44 LBS
RRUS11(700 MHz) WITHOUT SOLAR SHIELD	18.3"	5.8"	16.3"	44 LBS
RRUS11 (700 MHz) WITH SOLAR SHIELD	17.8"	7.2"	17.3"	49 LBS
RRUS11 (AWS 1700/2100 MHz) WITHOUT SOLAR SHIELD	16.3"	5.8"	16.3"	50 LBS
RRUS11 (AWS 1700/2100 MHz) WITH SOLAR SHIELD	17.8"	7.2"	17.3"	55 LBS

2 RRU SPECIFICATIONS  
SCALE: N.T.S.

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A	04/05/13	ISSUED FOR REVIEW	YA	LM SP

SCALE: AS SHOWN    DESIGNED BY: JJC    DRAWN BY: JJC

AT&T MOBILITY  
CONSTRUCTION DETAILS  
DRAWING NUMBER  
IL1340-05

6

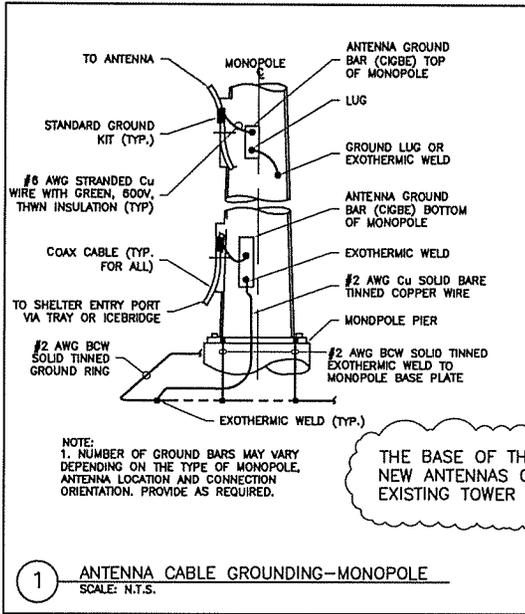
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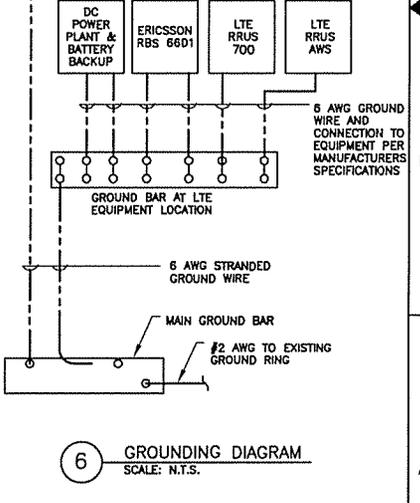
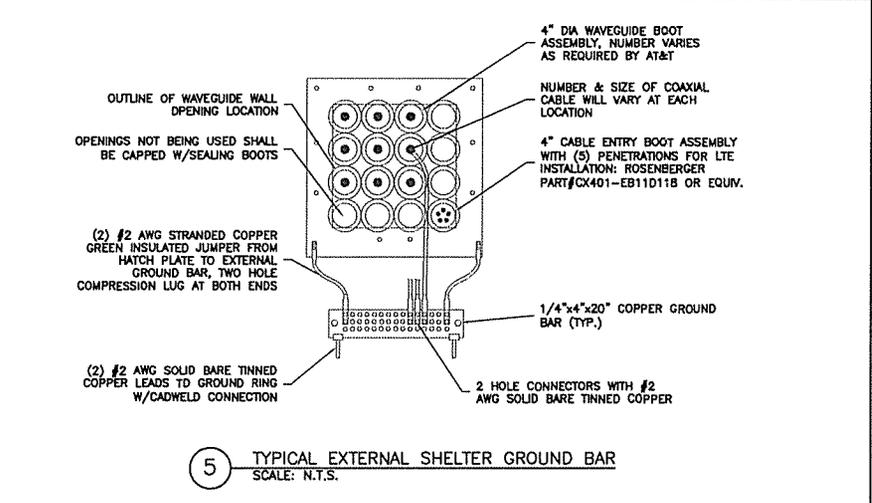
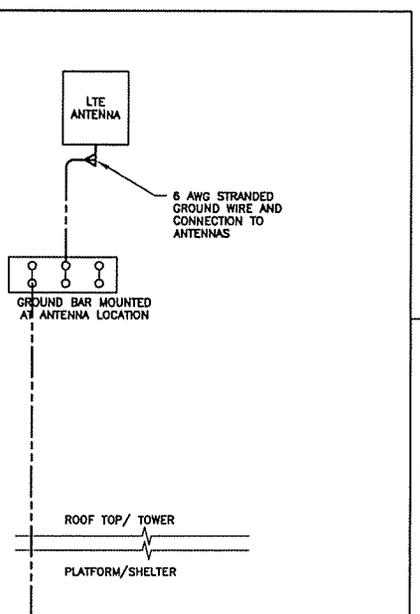
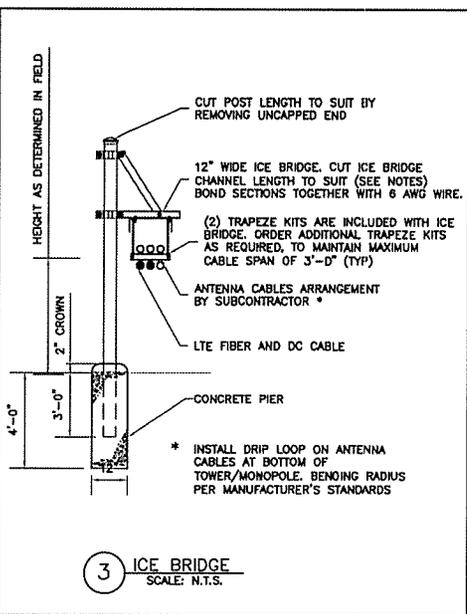
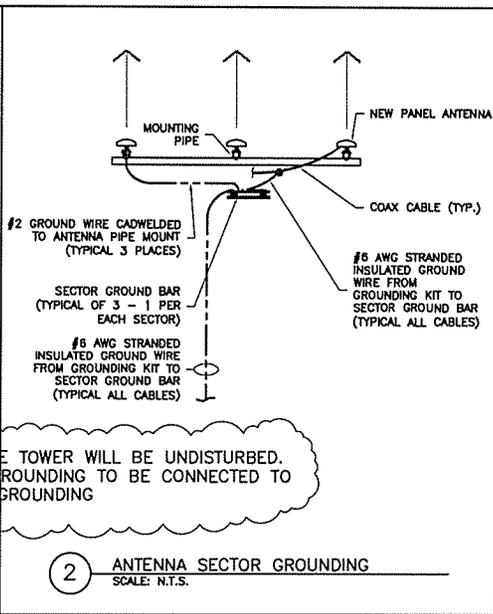
3

2

11 x 17 1/2" SIZE



THE BASE OF THE TOWER WILL BE UNDISTURBED. NEW ANTENNAS GROUNDING TO BE CONNECTED TO EXISTING TOWER GROUNDING



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AT&T MOBILITY	
GROUNDING DETAILS	
DRAWING NUMBER	REV
IL1340-08	0

6

5

4

3

2

11 x 17 8/32

NEW MATERIAL EXCLUDING COAX -  
ALL MATERIALS PROVIDED BY CONTRACTOR

SECTOR	ANTENNA NUMBER	POLARITY/PORT	TOP AND BOTTOM JUMPER COLOR	COAX ID	ANTENNA MODEL NUMBER	ANTENNA VENDOR	TMA/ DIPL./RRU MODEL NUMBER	AZIMUTH	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	ANTENNA CENTERLINE FROM GROUND	ANTENNA TIP HEIGHT	COAXIAL FEEDER		ANTENNA TYPE	
													SIZE	LENGTH		
A	A1	850	R W SI	A1-1	7770	POWERWAVE	(2) ERICSSON 1900 W 850 BYPASS	100°	0	0	81'-0"	84'-0"	1 5/8" LDF7-50A	±220'-0"	GSM/UMTS ANTENNA	
		1900	R W Br	A1-2									1 5/8" LDF7-50A	±220'-0"		
	A2		R O SI	A2-1												
			R O Br	A2-2												
	A3		R Br SI	A3-1												
			R Br Br	A3-2												
	A4	700	R V SI	A4-1	SBNH-1D6585A	ANDREW	(2) POWERWAVE AWS W/ 700 BYPASS	100°	0	8	-	81'-0"	84'-0"	1 5/8" LDF7-50A	±220'-0"	LTE ANTENNA
		AWS	R V Br	A4-2										1 5/8" LDF7-50A	±220'-0"	
B	B1	850	Bl W SI	B1-1	7770	POWERWAVE	(2) ERICSSON 1900 W 850 BYPASS	220°	0	0	81'-0"	84'-0"	1 5/8" LDF7-50A	±220'-0"	GSM/UMTS ANTENNA	
		1900	Bl W Br	B1-2									1 5/8" LDF7-50A	±220'-0"		
	B2		Bl O SI	B2-1												
			Bl O Br	B2-2												
	B3		Bl Br SI	B3-1												
			Bl Br Br	B3-2												
	B4	700	Bl V SI	B4-1	SBNH-1D6585A	ANDREW	(2) POWERWAVE AWS W/ 700 BYPASS	220°	0	1	2	81'-0"	84'-0"	1 5/8" LDF7-50A	±220'-0"	LTE ANTENNA
		AWS	Bl V Br	B4-2										1 5/8" LDF7-50A	±220'-0"	
C	C1	850	G W SI	C1-1	7770	POWERWAVE	(2) ERICSSON 1900 W 850 BYPASS	320°	0	0	81'-0"	84'-0"	1 5/8" LDF7-50A	±220'-0"	GSM/UMTS ANTENNA	
		1900	G W Br	C1-2									1 5/8" LDF7-50A	±220'-0"		
	C2		G O SI	C2-1												
			G O Br	C2-2												
	C3		G Br SI	C3-1												
			G Br Br	C3-2												
	C4	700	G V SI	C4-1	SBNH-1D6585A	ANDREW	(2) POWERWAVE AWS W/ 700 BYPASS	320°	0	0	-	81'-0"	84'-0"	1 5/8" LDF7-50A	±220'-0"	LTE ANTENNA
		AWS	G V Br	C4-2										1 5/8" LDF7-50A	±220'-0"	

ANTENNA MATRIX IS PREPARED BASED ON RFDS DATED  
03/26/2013 REVISION #V02.6  
GENERAL CONTRACTOR TO VERIFY AND INCORPORATE MOST  
RECENT VERSION OF RFDS PRIOR TO CONSTRUCTION.

1 ANTENNA MATRIX  
NTS

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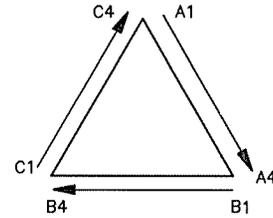
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AT&T MOBILITY  
ANTENNA MATRIX  
DRAWING NUMBER  
IL1340-07

CABLE MARKING COLOR CONVENTION TABLE

ALPHA, A, X, #1	A1-1 +45	A1-2 -45	A2-1 +45	A2-2 -45	A3-1 +45	A3-2 -45	A4-1 +45	A4-2 -45
SECTOR ANTENNA PORT (+/-)	RED							
	WHITE	WHITE	ORANGE	ORANGE	BROWN	BROWN	VIOLET	VIOLET
	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN
	ORANGE / VIOLET							
BAND (LOW/HI) *SEE NOTES 13 AND 15								
BEAM (LEFT/RIGHT) *SEE NOTE 14 BELOW	SLATE / YELLOW							
BETA, B, Y, #2	B1-1 +45	B1-2 -45	B2-1 +45	B2-2 -45	B3-1 +45	B3-2 -45	B4-1 +45	B4-2 -45
SECTOR ANTENNA PORT	BLUE	BLUE	BLUE	ORANGE	BROWN	BROWN	VIOLET	VIOLET
	WHITE	WHITE	ORANGE	ORANGE	BROWN	BROWN	VIOLET	VIOLET
	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN
	ORANGE / VIOLET							
BAND (LOW/HI) *SEE NOTES 13 AND 15								
BEAM (LEFT/RIGHT) *SEE NOTE 14 BELOW	YELLOW	SLATE / YELLOW						
GAMMA, C, Z, #3	C1-1 +45	C1-2 -45	C2-1 +45	C2-2 -45	C3-1 +45	C3-2 -45	C4-1 +45	C4-2 -45
SECTOR ANTENNA PORT	GREEN							
	WHITE	WHITE	ORANGE	ORANGE	BROWN	BROWN	VIOLET	VIOLET
	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN
	ORANGE / VIOLET							
BAND (LOW/HI) *SEE NOTES 13 AND 15								
BEAM (LEFT/RIGHT) *SEE NOTE 14 BELOW	YELLOW							
DELTA, D, #4	D1-1 +45	D1-2 -45	D2-1 +45	D2-2 -45	D3-1 +45	D3-2 -45	D4-1 +45	D4-2 -45
SECTOR ANTENNA PORT	YELLOW							
	WHITE	WHITE	ORANGE	ORANGE	BROWN	BROWN	VIOLET	VIOLET
	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN	SLATE	BROWN
	ORANGE / VIOLET							
BAND (LOW/HI) *SEE NOTES 13 AND 15								
BEAM (LEFT/RIGHT) *SEE NOTE 14 BELOW	SLATE / YELLOW							

FIGURE 1: ANTENNA ORIENTATION



NOTE: ALPHA STARTS AT 0 (NORTH) OR FIRST AZIMUTH AFTER 0  
 NOTE: BETA IS FIRST AZIMUTH AFTER ALPHA IN CLOCK-WISE DIRECTION  
 NOTE: GAMMA IS FIRST AZIMUTH AFTER BETA IN CLOCK-WISE DIRECTION  
 NOTE: DELTA IS FIRST AZIMUTH AFTER GAMMA IN CLOCK-WISE DIRECTION  
 NOTE: AZIMUTH IS IDENTIFIED BY THE PANEL, NOT THE ELEMENTS INSIDE

CABLE MARKING TAGS

TO PROVIDE ADDITIONAL IDENTIFICATION RF CABLES SHALL BE IDENTIFIED WITH A METAL TAG MADE OF STAINLESS STEEL OR BRASS AND STAMPED WITH THE SECTOR, ANTENNA POSITION, AND CABLE NUMBER. THE ID MARKING LOCATIONS SHOULD BE AS PER "CABLE MARKING LOCATIONS TABLE". THE TAG SHOULD BE ATTACHED WITH CORROSIVE PROOF WIRE OR WAX STRING AROUND THE CABLE. THE TAG SHOULD BE LABELED AS SHOWN BELOW IN FIGURE 2.

FIGURE 2: TAG DETAIL EXAMPLE



Your world. Delivered.  
 Version 2.06 March 6TH, 2012  
 Version 2.07 August 10TH, 2012

CABLE MARKING LOCATIONS TABLE

TAPE	TAG	LOCATIONS
X		EACH TOP JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
X		EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.
	X	MARKING TAGS SHALL BE ATTACHED AT CABLE ENTRY PORT ON THE INTERIOR OF THE SHELTER
X		ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF BOTTOM JUMPER.

- NOTE 1\*: ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE INSTALLED USING A MINIMUM OF (3) WRAPS OF TAPE.
- NOTE 2\*: ALL COLOR BANDS INSTALLED AT THE TOWER TOP SHALL BE A MINIMUM OF 3" WIDE AND SHALL HAVE A MINIMUM OF X" OF SPACING BETWEEN EACH COLOR.
- NOTE 3\*: ALL COLOR BANDS INSTALLED AT OR NEAR THE GROUND MAY BE ONLY X" WIDE. EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
- NOTE 4\*: EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH X" COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.
- NOTE 5\*: ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF X" BANDS ON EACH END OF THE BOTTOM JUMPER. NOTE 6\*: ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE-TO-SIDE.
- NOTE 7\*: EACH COLOR BAND SHALL HAVE A MINIMUM OF (3) WRAPS AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
- NOTE 8\*: X-POLE ANTENNAS SHOULD USE "XX-1" FOR THE "+45" PORT, "XX-2" FOR THE "-45" PORT.
- NOTE 9\*: COLORBAND #4 REFERS TO THE FREQUENCY BAND: ORANGE=850, VIOLET=1900. USED ON JUMPERS ONLY.
- NOTE 10\*: RF FEEDLINE SHALL BE IDENTIFIED WITH A METAL TAG (STAINLESS OR BRASS) AND STAMPED WITH THE SECTOR, ANTENNA POSITION, AND CABLE NUMBER.
- NOTE 11\*: ANTENNAS MUST BE IDENTIFIED, USING THE SECTOR LETTER AND ANTENNA NUMBER, WITH A BLACK MARKER PRIOR TO INSTALLATION.
- NOTE 12\*: ONLY "SECTOR-SPLIT" ANTENNA COAX SHALL CONTAIN A 5TH COLORBAND TO INDICATE "LEFT" OR "RIGHT" BEAM.
- NOTE 13\*: "SECTOR-SPLIT" ANTENNA COAX SHALL USE BLACK TAPE AS A PLACEHOLDER ON MAINLINE FOR COLORBAND #4 (FREQ BAND)
- NOTE 14\*: "SECTOR-SPLIT" ANTENNAS SLATE FOR THE LEFT BEAM, AND YELLOW FOR THE RIGHT BEAM
- NOTE 15\*: "LOW" BAND REFERS TO 700MHZ OR 850MHZ. "HI" BAND REFERS TO 1900MHZ OR 2100MHZ

SITE FIBER COLOR CODE CHART

SECTOR A			
FIBER CABLE PAIR #	TAPE BAND COLOR: RED	FUNCTION	
1		LTE-700-A-RRU-A1	
2		LTE-AWS-A-RRU-A2	
3		LTE/UMTS-A-850/1900-A-RRU-A3	
4		SECTOR A SPARE	
SECTOR B			
FIBER CABLE PAIR #	TAPE BAND COLOR: BLUE	FUNCTION	
5		LTE-700-B-RRU-B1	
6		LTE-AWS-B-RRU-B2	
7		LTE/UMTS-B-850/1900-B-RRU-B3	
8		SECTOR B SPARE	
SECTOR C			
FIBER CABLE PAIR #	TAPE BAND COLOR: GREEN	FUNCTION	
9		LTE-700-C-RRU-C1	
10		LTE-AWS-C-RRU-C2	
11		LTE/UMTS-C-850/1900-C-RRU-C3	
12		SECTOR C SPARE	

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AT&T MOBILITY	
COAX / FIBER COLOR CODING	
DRAWING NUMBER	REV
IL1340-08	0





## Agenda Item Executive Summary

**Title:** Willow Road STADI Project: Independent Engineer's Cost Estimate Review

**Presenter:** Steven M. Saunders, Director of Public Works/Village Engineer

**Agenda Date:** 09/01/2015

**Consent:**  YES  NO

- Ordinance
- Resolution
- Bid Authorization/Award
- Policy Direction
- Informational Only

### Item History:

On April 28, 2015, and again on May 12, 2015, the Village Council discussed Review Point #2 for the Willow Road Stormwater Tunnel and Area Drainage Improvements (STADI) project. The Council reviewed the design process undertaken over the last nine months, including updated cost estimates. The original 2011/2012 cost estimate for the STADI project of \$34.6 million was based on conceptual design, broad field data, and typical unit construction costs. MWH incorporated additional information about quantities of materials, site-specific considerations, as well as utility and field data, resulting in a current estimate of \$58.5 million. Due to the significant increase in estimated cost, the Council authorized an independent, third-party engineering review of the project, focusing on two project aspects: 1) the accuracy and reliability of the cost estimates and 2) whether there are other more cost effective ways to design and implement the project. V3 Companies (V3), teaming with tunneling expert Hatch Mott MacDonald (HMM), was contracted in June to complete an independent cost estimate and cost review, and to conduct a value engineering review of the project.

### Executive Summary:

Using all available project data to date, V3/HMM developed construction cost estimates, taking into account things such as crew sizes; labor and production rates; material prices; trucking costs; soil disposal costs; and a host of other factors, to develop unit prices for the major work items. General conditions – items such as mobilization, traffic control, overhead, contractor bonds, etc. – were calculated as a percent of hard construction costs. All of these detailed estimates were then “rolled up” to identify subtotals for construction of major sections of the project. A project contingency, necessary at this stage of the project, was also included.

V3/HMM have provided a construction cost estimate, including contingencies, of \$73,789,460. In addition to construction cost, other project costs such as engineering, permitting, and construction management must be included, in order for the estimate to be comparable with prior estimates for the project. When these additional project costs are included, the total estimated project cost is \$81,297,222. This estimate compares unfavorably with the prior estimates provided by Christopher Burke Engineering (\$34.6 million in 2012 dollars) and MWH (\$58.5 million in 2015 dollars). Clearly, the information contained in the independent cost estimate is troubling. The estimated project cost of \$81,297,222 is 39% higher than the recent MWH estimate and more than double the original 2012 Christopher Burke estimate. There are several questions that should be addressed and resolved by the Village Council as the Village continues to work toward providing significant structural flood relief to affected areas:

1. Should V3/HMM and MWH be engaged to reconcile the two recent cost estimates into a single, final, composite cost estimate, at a cost of \$10,000 to \$15,000? Staff recommends this if there is a desire to identify one single “best answer” to the estimated project cost, as the STADI project is currently conceived.
2. Should the Village direct V3/HMM to proceed with the contracted value engineering work, at a cost of \$88,296? Staff does not recommend proceeding with this work at this time.
3. Should the Village direct MWH to continue working toward permit submittal, or should that work be paused to allow for evaluation of other alternative projects?
4. Should the Village direct MWH to proceed with additional water quality work? Staff recommends that if the Village proceeds with submitting permit applications to the Illinois EPA, the Village should confer with the IEPA after initial review to determine what, if any, additional water quality monitoring will be required in support of the application.

The following Agenda Report addresses these questions in detail, and provides guidance and recommendations on possible next steps.

### Recommendation:

Review the attached Independent Cost Review of the Willow Road STADI Project and provide policy direction on possible next steps:

### Attachments:

- Agenda Report
- Independent Cost Estimate
- Project Technical Review

## **Agenda Report**

**Subject: Willow Road STADI Project: Independent Cost Estimate Review**

Prepared By: Steven M. Saunders, Director of Public Works/Village Engineer

Date: August 26, 2015

### **Background**

On April 28, 2015, and again on May 12, 2015, the Village Council discussed Review Point #2 for the Willow Road Stormwater Tunnel and Area Drainage Improvements (STADI) project prepared by MWH, the Village's consulting engineering firm. The Council reviewed the design process undertaken over the last nine months, including updated cost estimates. The original 2011/2012 cost estimate for the STADI project of \$34.6 million was based on conceptual design, broad field data, and typical unit construction costs. MWH incorporated additional information about quantities of materials, site-specific considerations, as well as utility and field data, resulting in a current estimate of \$58.5 million.

Due to the significant increase in estimated cost, the Council authorized an independent, third-party engineering review of the project, focusing on two project aspects: 1) the accuracy and reliability of the cost estimates and 2) whether there are other more cost effective ways to design and implement the project. V3 Companies (V3), teaming with tunneling expert Hatch Mott MacDonald (HMM), was contracted in June to complete an independent cost estimate and cost review, and to conduct a value engineering review of the project. The review will provide the community with additional cost information, to inform future decision-making on the project. The value engineering process will creatively evaluate the STADI project and identify potential changes to the project that might better accomplish the desired level of structural flood risk-reduction at a lower capital cost, while providing better overall value and confidence in the effectiveness of the design. The Village's contract with V3 is structured so that the design and cost review are to be conducted first, and the value engineering work is to be conducted subsequently, if authorized by the Village Council.

### **Independent Opinion of Probable Cost**

V3/HMM were provided with a vast amount of project data, beginning with initial drainage studies and conceptual project designs and estimates prepared by Christopher Burke Engineering, as well as detailed surveys, computer modeling, plans, designs, and estimates prepared by MWH. V3/HMM were selected based on their expertise, but also based on their "bottom up" approach to cost estimating for large storm sewer and tunneling projects. Under this approach, the project is structured in the same manner a

contractor would approach bidding, using the set of plans and project documents as they have been developed to date. Construction costs for non-tunneled storm sewer construction were developed by taking into account things such as crew sizes; labor and production rates; material prices; trucking costs; soil disposal costs; and a host of other factors, to develop unit prices for the major work items. General conditions – items such as mobilization, traffic control, overhead, contractor bonds, etc. – were calculated as a percent of hard construction costs.

Construction costs for tunneled sections of storm sewer were developed by HMM using a proprietary database of their prior tunneling projects, also using a “bottom up” approach. Project estimates were developed for major divisions of work, such as access shafts; mining shafts; tunnel liner; outfall structure; etc. The estimates were calculated using anticipated crew size; equipment rates; anticipated productivity rates; soil removal costs; material costs; etc.

All of these detailed section estimates – both tunneled and non-tunneled – were then “rolled up” to identify subtotals for construction of major sections of the project.

A final cost item, a project contingency, was also included. The contingency is necessary at this stage of the project, because while significant design work has been done, the project is still only at approximately the 30% design stage and there are still design details to be developed and refined. The contingency recognizes that some items that will affect ultimate construction costs cannot be satisfactorily quantified as unit prices at this time, and that some unknown items may also affect construction costs. For example, soil borings have indicated that the soil expected along the tunnel alignment is predominantly stiff clay, excellent for tunneling, but that there is a sand and gravel layer at the east end of the tunnel alignment that requires some further exploration. If this ground is problematic, it could result in increased construction costs, which are accounted for in the project contingency.

V3/HMM have provided a construction cost estimate, including contingencies, of \$73,789,460 (see **Attachment #1**). It should be noted that at this stage of design, contingencies are significant, ranging from 10% of hard construction costs on open-cut storm sewer work to 30% of hard construction costs on tunneling work. The total contingency at this time is approximately \$15.4 million, which accounts for just under 21% of the total construction cost.

The table on the following page shows the estimated construction cost, side by side with the MWH estimate presented earlier this year:

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

VILLAGE OF WINNETKA, ILLINOIS WILLOW ROAD STADI PROJECT - COST SUMMARY				
		MWH 2015 30% PDR EOPCC	JUNE 2015 INDEPENDENT OPCC	CHANGE
<b>TUNNEL</b>				
1.00	WILLOW ROAD TUNNEL & APPURTENANCES	\$ 28,194,980.00	\$ 37,297,460.00	\$ 9,102,480.00
<b>SITE WORK</b>				
2.00	WOODLAND AVENUE - STA 200+00 to 227+13	\$ 2,809,330.00	\$ 3,879,000.00	\$ 1,069,670.00
3.00	OAK STREET - STA 300+60 to 303+74	\$ 329,190.00	\$ 329,000.00	\$ (190.00)
4.00	POPLAR STREET - STA 311+08 to 323+62	\$ 1,491,500.00	\$ 1,555,000.00	\$ 63,500.00
5.00	ASH STREET - STA 340+70 to 319+72	\$ 458,340.00	\$ 404,000.00	\$ (54,340.00)
6.00	BIRCH STREET - STA 400+91 to 422+90	\$ 2,865,290.00	\$ 3,709,000.00	\$ 843,710.00
7.00	WESTMOORE ROAD - STA 500+76 to 503+10	\$ 233,630.00	\$ 337,000.00	\$ 103,370.00
8.00	LOCUST STREET - STA 510+49 to 549+45	\$ 3,461,820.00	\$ 4,755,000.00	\$ 1,293,180.00
9.00	WINNETKA ROAD - STA 231+60 to 237+50	\$ 713,650.00	\$ 636,000.00	\$ (77,650.00)
10.00	BERKELEY AVENUE - STA 601+00 to 613+00	\$ 3,454,790.00	\$ 2,811,000.00	\$ (643,790.00)
11.00	ASH STREET - STA 620+50 to 627+29	\$ 580,830.00	\$ 851,000.00	\$ 270,170.00
12.00	PINE STREET - STA 700+72 to 703+33	\$ 362,380.00	\$ 502,000.00	\$ 139,620.00
13.00	HIBBARD ROAD - STA 710+30 to 712+55	\$ 1,080,960.00	\$ 1,318,000.00	\$ 237,040.00
	SUBTOTAL SITEWORK	\$ 17,841,710.00	\$ 21,086,000.00	\$ 3,244,290.00
14.00	SITE WORK CONTINGENCY (20% - 20%)	\$ 3,568,000.00	\$ 4,217,000.00	\$ 649,000.00
15.00	TUNNEL CONTINGENCY (10% - 30%)	\$ 2,819,000.00	\$ 11,189,000.00	\$ 8,370,000.00
	TOTAL	\$ 52,423,690.00	\$ 73,789,460.00	\$ 21,365,770.00

In addition to construction cost, other project costs such as engineering, permitting, and construction management must be included, in order for the estimate to be comparable with prior estimates for the project. When these additional project costs are included, the total estimated project cost is \$81,297,222.

	MWH	V3/HMM
	April 2015 Estimate	August 2015 Estimate
Total Estimated Construction Cost	\$ 52,423,690	\$ 73,789,460
Design Engineering (MWH Contract Amount +10%)	\$ 2,305,000	\$ 2,305,000
Construction Engineering (4.5% of Construction Cost)	\$ 2,359,066	\$ 3,320,526
Permitting (1.0% of Constuction Cost)	\$ 524,237	\$ 737,895
Feasibility Study (Complete)	\$ 37,500	\$ 37,500
Project Management (1.5% of Construction Cost)	\$ 786,355	\$ 1,106,842
Subtotal Additional Project Costs	\$ 6,012,158	\$ 7,507,762
<b>TOTAL ESTIMATED PROJECT COST</b>	<b>\$ 58,435,848</b>	<b>\$ 81,297,222</b>

**Comparison with Previous Cost Estimate**

This estimate compares unfavorably with the prior estimates provided by Christopher Burke Engineering (\$34.6 million in 2012 dollars) and MWH (\$58.5 million in 2015 dollars). There are two areas where the two cost estimates diverge significantly. First, HMM's estimate of direct construction cost for the tunnel and appurtenances (i.e. shafts and outlet structure) is \$9.1 million (32.3%) higher than the April 2015 MWH estimate for this work. The primary factor for this difference is that HMM has based their

estimates on a sustained tunnel production rate of 32 feet per day, while MWH based their estimate on a higher sustained production rate. Because tunneling is labor- and equipment-intensive, production rates have a significant impact upon construction costs.

Second, HMM has included in their estimate a 30% contingency on the tunnel portion of the project. MWH was previously carrying a 10% contingency on this portion of the work, and the resulting difference between the two contingency estimates is nearly \$8.4 million. While some of this difference is due to the higher construction cost estimate, \$7.4 million of this difference is attributable to the higher percentage used to calculate the contingency. Staff has had several conversations with V3/HMM about the appropriateness of a 30% contingency at this time, and they firmly believe that it is appropriate to carry 30% on the tunnel work given the current state of the design work and detail on the project. Further, there are some specific items that HMM believes may affect the cost, but are not fully detailed at this stage of engineering. For example, no additional direct cost was included to manage the gravel/sand layer at the downstream end of the tunnel alignment. If this ground condition proves problematic, it could add considerable cost to the project. In addition, the design for the outfall structure indicates that the construction work will be supported with walers and steel sheeting. No cost has been included for the possibility of needing tie-backs, non-vibratory installation methods, or slope stabilization. HMM believes that items such as these warrant a higher contingency, and that it is prudent to carry this contingency early in the project to avoid unanticipated costs as design progresses.

Finally, there are differences in the various sections of open-cut storm sewer installation for the project. V3's estimate for some portions was lower than MWH's estimate, but it was higher for other portions. In aggregate, V3's estimate for the open cut storm sewer work is about \$3.2 million (18%) higher than MWH's estimate for this corresponding work.

### **Possible Next Steps and Recommendations**

Clearly, the information contained in the independent cost estimate is troubling. The estimated project cost of \$81,297,222 is 39% higher than the recent MWH estimate and more than double the original 2012 Christopher Burke estimate. There are several questions that should be addressed and resolved by the Village Council at this time.

First, it should be noted that just as there are differences between contractor bid numbers on the open market – and sometimes bid spreads can be quite large – there are different assumptions and calculations between engineering firms when project estimates are developed. For example, the tunneling productivity rate calculated by V3/HMM is significantly slower than the productivity rate day used by MWH, but MWH used a different crew composition, with more workers. These differences affect tunnel costs. One step that may be of value to the Village is to complete an estimate reconciliation, where V3/HMM and MWH discuss the differences in their estimates. It may be that in some cases, MWH's approach and assumptions prove to be more reasonable, while in other cases, V3/HMM's approach proves better. This step has not yet been taken, in order

to preserve the independence of the estimates, but it could provide more cost certainty between the two estimates. However, it should be noted that this approach would, of necessity, result in an additional number somewhere between the two most recent estimates. V3/HMM have estimated that this effort could be completed in September, and the Village Council should determine whether this additional step should be undertaken at this time.

In addition, the Village has also contracted with V3/HMM to complete a value engineering process to creatively evaluate the STADI project and identify potential changes to the project that might better accomplish the desired level of structural flood risk-reduction at a lower capital cost, while providing better overall value and confidence in the effectiveness of the design. This value engineering work, which requires prior Council authorization, would require the expenditure of an additional \$88,296 to complete. Staff does not recommend advancing the value engineering work at this time, because it is unlikely that sufficient savings will be found to make the project financially viable. For example, even if the value engineering effort produced savings of 20% of the \$81.3 million estimated project cost, the cost estimate would still be approximately \$64 million.

Of more immediate concern to the Village should be the status of current and upcoming work on the STADI project. The Village has directed MWH to complete and submit draft permit applications for the project (total cost \$110,000, of which about \$18,500 has been expended to date, leaving about \$91,500 to be expended), and is contemplating collecting additional stormwater quality monitoring information in support of this application (additional cost approximately \$100,000). The thought behind directing MWH to proceed with the permit application, while the Village simultaneously undertook cost estimating and value engineering, is that the permitting process is anticipated to be lengthy, perhaps 12 to 18 months, and starting that process as soon as possible is advantageous. With the V3/HMM estimate complete, and substantially higher than previous estimates, the Council should seriously consider whether to continue with the permitting process, and whether to collect additional permit-related water quality data now, or to pause that effort.

If the Council believes that the STADI project is still viable at this time, it is reasonable to continue with permit applications given the length of time to transit the approval process. However, this process will require significant resources, and will involve multiple public comment periods and review iterations. Staff has preliminarily met with several stakeholder groups devoted to protecting the Great Lakes, including the National Resources Defense Council, the Alliance for the Great Lakes, and Openlands. Each of these groups, while sympathetic to the Village's situation, also expressed concerns and opposition towards the project. This will further complicate the permit process, so that if the Council is not convinced that the STADI project is viable as it stands, serious consideration should be given to pausing that work while other alternatives are investigated and developed.

The Village has published and received responses to a Request for Proposals (RFP) seeking a re-evaluation/development of alternative, non-STADI stormwater relief solutions for western and southwestern Winnetka areas that would be served by the proposed STADI project. Staff anticipates that the Village Council could consider contracting for this work later in September, and that alternative approaches could be available for discussion by early 2016. Given the significant cost increases associated with the STADI project estimates, and the planned discussion and evaluation of non-STADI alternatives in early 2016, the Village Council should consider postponing the next steps of value engineering, additional water quality monitoring, and permit submittal on the STADI project, with an attendant additional investment of up to \$280,000, at this time. Depending upon the results of the alternative analysis, the Council can then consider whether to continue further with the STADI project, or develop and implement whatever other alternative flood risk reduction projects are identified.

### **Project Technical Review**

Finally, V3/HMM also conducted a detailed technical review of the project and has determined that, in general, the technical project engineering to date is sound. They have, however, identified some areas of the project that require further detail, analysis, and development, which is appropriate given the current 30% project engineering level. Among these items to be detailed further are:

- Additional hydrodynamic modelling of the tunnel and outfall structure may be necessary to assure that there will not be significant venting or other velocity effects at drop shafts and the outlet structure as a result of rapid and significant flow variation resulting from heavy and rapid rain events.
- It may be beneficial to perform additional evaluation of the hydrologic model runoff calculations to determine the sensitivity of the model to input curve numbers.
- Further attention should be given to detailed design of access and connection shafts to determine the most advantageous shaft size
- Further investigation should be made to determine the exact soil conditions at the easternmost end of the tunnel alignment, as these conditions could have significant impacts upon design and cost of the outlet structure.
- Consideration should be given to working multiple shifts per day on the tunnel operation, to potentially reduce the duration and cost of the tunneling portion of the project.

V3/HMM's Project Technical Review memorandum is shown in **Attachment #2**.

### **Recommendation:**

Review the attached Independent Cost Review of the Willow Road STADI Project and provide policy direction on possible next steps:

1. Should V3/HMM and MWH be engaged to reconcile the two recent cost estimates into a single, final, composite cost estimate, at a cost of \$10,000 to \$15,000? Staff

recommends this if there is a desire to identify one single “best answer” to the estimated project cost, as the STADI project is currently conceived.

2. Should the Village direct V3/HMM to proceed with the contracted value engineering work, at a cost of \$88,296? Staff does not recommend proceeding with this work at this time.
3. Should the Village direct MWH to continue working toward permit submittal, or should that work be paused to allow for evaluation of other alternative projects?
4. Should the Village direct MWH to proceed with additional water quality work? Staff recommends that if the Village proceeds with submitting permit applications to the Illinois EPA, the Village should confer with the IEPA after initial review to determine what, if any, additional water quality monitoring will be required in support of the application.

**Attachments:**

1. Independent Cost Estimate
2. Project Technical Review

**ATTACHMENT #1**  
**Independent Cost Estimate**



August 24, 2015

Mr. Steven M. Saunders  
Director of Public Works  
Village of Winnetka  
1390 Willow Road  
Winnetka, IL 60093

Regarding: **Independent Cost Review of Willow Road STADI  
Village of Winnetka, IL**

Dear Mr. Saunders:

V3 Companies of Illinois Ltd. (V3) has completed an Independent Cost Review of the Willow Road Stormwater Tunnel and Area Drainage Improvement (STADI) project. This task is the first phase of evaluation of the Willow Road STADI project and involved a professional contractor cost evaluation of the 30% Preliminary Design Plans and 30% Preliminary Design Report completed by MWH. V3 professional construction estimators completed the Stormwater Improvements aspects of this project and Hatch Mott MacDonald (HMM) tunneling experts completed the Tunneling aspects of the project. The following information is provided to the Village of Winnetka as a comparison of the MWH cost estimate for the Willow Road STADI project.

### **Purpose of the Independent Cost Review**

The Village of Winnetka engaged the V3 Team to perform an independent cost review of the Willow Road STADI project to confirm or adjust the \$52,424,534 construction cost estimate that was provided by MWH for the Willow Road STADI project. The V3 Team includes professional cost estimators at V3 Companies who prepare contractor bids in excess of \$100 Million dollars annually for utility and earthwork projects throughout the Chicagoland area. In addition, HMM has developed TED (Tunnel Estimating Database), which is a tunnel and shaft construction cost estimating system that is unique to HMM. TED has an excellent track record of producing estimates close to the winning bid on many projects. To-date, TED has been used to produce over 500 estimates and in cases where the system has been subjected to 'real life' testing where bids are compared with an Engineer's estimate undertaken in advance, the results have been quite impressive with a remarkable track record of construction cost estimates that are typically within 4 percent of the actual low bid. Through this independent cost review, the Village desires to obtain further direction on the design and implementation of a cost effective stormwater solution for flood mitigation.

### **Scope of the Independent Cost Review**

The V3 Team received numerous documents from the Village of Winnetka to utilize in the independent cost review. The primary information that informed this cost evaluation were the following: 1) Willow Road STADI Cost and Alternative Evaluation dated March 19, 2015, 2) Willow Road STADI Opinion of Probable Construction Costs Technical Memorandum dated April 1, 2015, 3) Preliminary Design Drawings by MWH dated April 2015 and the Willow Road Stormwater Tunnel, and 4) Area Drainage Improvements Preliminary Design Report dated April 22, 2015.

Additional documentation was utilized to confirm design decisions and project constraints and evaluate potential cost variations that may occur due to unforeseen or unknown conditions. These clarifications for the independent cost review are detailed below.

### **Summary of Cost Assumptions or Pricing Constraints**

Given that this project is at a Preliminary Design stage (estimated to be 30% complete), a number of design and construction decisions must be further evaluated. The following assumptions and pricing constraints have been included in the V3 Team's independent cost review.

- Property or easement acquisition is not included in this construction estimate.
- Costs for engineering, permit fees or construction management is not included in this construction estimate.

### **Significant Stormwater Cost Variances**

The V3 stormwater improvements portion of the estimate varied from the MWH estimate by approximately \$3.2M. The following items are likely drivers of this additional cost of the project.

- Pipe installation will be slower than average due to very narrow roadway and the need to provide local access to residents. This construction restriction would cause a 10% increase in cost due to longer installation time.
- Very few CCDD disposal facilities in the Winnetka area. Earth Inc., and B&B are currently running disposal operations within a 1.5HR Round of the site but we do not anticipate that this will be long term option. CCDD disposal pricing includes a 2.50 HR Semi round at \$115.00 / HOUR and a \$75 Tip Fee with 15% mark-up.
- MWH included a \$1,587,660 line item for Utility Relocation Cost. V3 believes this is a low estimate and we have included a 20% contingency on the Stormwater Improvements which should cover costs for dry utility relocation (gas, electric, telephone, fiber).

### **Significant Tunnel Variances**

The HMM tunnel portion of the estimate varied from the MWH estimate by approximately \$17M. This is essentially summarized in the 3 main line items below:

<b>Item</b>	<b>Cost Delta Between Estimates</b>
96" Diameter Tunnel	\$6.8M
96" Diameter Pipe	\$5.0M
Contingency	\$8.4M

Below are possible items that resulted in the cost deltas between the two estimates:

- **96" Diameter Tunnel.** This item includes excavation of the tunnel and installation of the initial support, including ancillary costs like procurement of the TBM and hauling of spoils. We have not seen the details of the MWH bottom-up estimate, so it is difficult to ascertain the exact discrepancies. However based on the PDR, it appears that we have assumed a less aggressive TBM advance rate (32 ft/shift compared to 50-80 ft/shift per

PDR 3.1.9). This lower rate is based on our historical records/past experience tempered with other factors that we believe will contribute to a lower advance rate for this project such as single-shift mining, potential for boulders and mixed face soil, high traffic and difficulty with muck handling/transport etc.

The TBM advance rate is one of the single largest assumptions from a cost perspective that goes into a tunneling estimate because each additional day of mining requires the full labor crew and extension of services/equipment – for labor alone, we have calculated a cost of \$11,600/day (excluding overhead and profit markups). The duration difference between 32 and 80 ft/day is an additional 159 days of tunneling when using the slower production rate. While a 60 to 80 ft/day sustained average advance rate may be achievable, in our experience this would require 2 working shifts per day, and the project constraints dictate that only a single shift can be operated. Note also that we assumed a larger TBM diameter (as discussed in our design review memo, comment 8), which will have a ripple effect on the tunneling costs between TBM, excavation/hauling volumes, and tonnage of steel support to name a few.

- **96” Diameter Pipe.** This item includes furnishing and installation of the precast reinforced concrete pipe, including backfill grouting of the annulus in the tunnel around the pipe. The MWH estimate calculated an installed pipe price of \$750/ft compared to the HMM-calculated installed price of \$1,331/ft. This assumes a pipe price of \$811.20 obtained from a supplier in Michigan. V3 contacted Concrete Specialties from Romeoville, IL to provide another cost data point. Their list price is a pipe cost of \$700/ft, so it would appear that the MWH installed price is just the product pipe and does not take into account the pipe installation.

The RCP price used in the HMM estimate was \$111/ft more than the Concrete Specialties price. However, the pipe has not been designed yet. If the hydrostatic head is too much to resist with a standard joint at **tunnel** depth, the RCP may have to switch over to a more robust joint. So, we assumed a higher-rated joint at this early stage in design. Assuming that the pipe priced by Concrete Specialties is indeed sufficient for the tunnel, this would reduce the HMM estimate by \$1.1M for the 8500-ft (after applying the 15% markup we used for GC profit).

- **Contingency.** The HMM estimate assumed a 30% contingency whereas the MWH estimate assumed 10%. Contingency can come in several different forms, such as risk, construction, and design contingency. With respect to design contingency, this is a function of the project definition because this will dictate the level of detail available to the estimator to incorporate into the estimate, and also will dictate the potential for design changes leading up to final design. Based on the Association for Advancement of Cost Engineering (AACE), a project at the 30% design phase would be advanced sufficiently for the preparation of a Class 3 or Class 4 estimate – the recommended contingency for these classes is between 10%-50%. There are also other industry-recognized methods for establishing contingency. The 1992 paper by Joe Sperry (attached) is another method we often reference. Using this method and the AACE guidelines, we selected 30% as the contingency, as is standard at HMM (and generally in the industry) for 30% design. Some items that we identified during our review of the documents that could contribute to higher costs (contingency) as the design advances are as follows:

- The tunnel alignment intersects a gravel layer east of Sheridan Road (review comment 5).
- Tunnel initial support system has not finalized (review comments 6, 9).
- The support system for the outfall has not yet been designed and will be challenging considering work adjacent and in Lake Michigan, and the stability of the slope (review comment 11).
- No structural design has been performed so shafts/structures were estimated using assumed concrete thicknesses and rebar based on our previous experience.
- Procurement packaging has not been finalized (review comment 20).
- The rail permit has not been issued so the requirements imposed by the rail owner are unknown (review comment 21).

### Summary of Independent Cost Review

The following table provides a snapshot of the cost comparison between the MWH opinion of construction cost and the V3 Independent Cost Review. Additional detail is provided within the attachments to this document.

	MWH 2015 30% PDR EOPCC	JUNE 2015 INDEPENDENT OPCC
<b>TUNNEL</b>		
<b>1.00 WILLOW ROAD TUNNEL &amp; APPURTENANCES</b>	<b>\$28,194,980.00</b>	<b>\$37,297,460.00</b>
<b>SITE WORK</b>		
<b>2.00 WOODLAND AVENUE - STA 200+00 to 227+13</b>	<b>\$ 2,809,330.00</b>	<b>\$ 3,879,000.00</b>
<b>3.00 OAK STREET - STA 300+60 to 303+74</b>	<b>\$ 329,190.00</b>	<b>\$ 329,000.00</b>
<b>4.00 POPLAR STREET - STA 311+08 to 323+62</b>	<b>\$ 1,491,500.00</b>	<b>\$ 1,555,000.00</b>
<b>5.00 ASH STREET - STA 340+70 to 319+72</b>	<b>\$ 458,340.00</b>	<b>\$ 404,000.00</b>
<b>6.00 BIRCH STREET - STA 400+91 to 422+90</b>	<b>\$ 2,865,290.00</b>	<b>\$ 3,709,000.00</b>
<b>7.00 WESTMOORE ROAD - STA 500+76 to 503+10</b>	<b>\$ 233,630.00</b>	<b>\$ 337,000.00</b>
<b>8.00 LOCUST STREET - STA 510+49 to 549+45</b>	<b>\$ 3,461,820.00</b>	<b>\$ 4,755,000.00</b>
<b>9.00 WINNETKA ROAD - STA 231+60 to 237+50</b>	<b>\$ 713,650.00</b>	<b>\$ 636,000.00</b>
<b>10.00 BERKELEY AVENUE - STA 601+00 to 613+00</b>	<b>\$ 3,454,790.00</b>	<b>\$ 2,811,000.00</b>
<b>11.00 ASH STREET - STA 620+50 to 627+29</b>	<b>\$ 580,830.00</b>	<b>\$ 851,000.00</b>
<b>12.00 PINE STREET - STA 700+72 to 703+33</b>	<b>\$ 362,380.00</b>	<b>\$ 502,000.00</b>
<b>13.00 HIBBARD ROAD - STA 710+30 to 712+55</b>	<b>\$ 1,080,960.00</b>	<b>\$ 1,318,000.00</b>
<b>SUBTOTAL SITEWORK</b>	<b>\$17,841,710.00</b>	<b>\$21,086,000.00</b>
<b>14.00 SITE WORK CONTINGENCY (20% - 20%)</b>	<b>\$ 3,568,000.00</b>	<b>\$ 4,217,000.00</b>
<b>15.00 TUNNEL CONTINGENCY (10% - 30%)</b>	<b>\$ 2,819,000.00</b>	<b>\$11,189,000.00</b>
<b>TOTAL</b>	<b>\$52,423,690.00</b>	<b>\$73,789,460.00</b>

Mr. Steven M. Saunders  
Village of Winnetka  
August 24, 2015  
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We look forward to discussing this cost evaluation further, and the potential Value Engineering of the Willow Road STADI to identify cost effective solutions for flood mitigation. Please feel free to contact me at 630-729-6334 or gwolterstorff@v3co.com.

Sincerely,  
**V3 Companies of Illinois Ltd.**

A handwritten signature in black ink, appearing to read 'G. V. Wolterstorff', with a long horizontal line extending to the right from the end of the signature.

Gregory V. Wolterstorff, P.E.  
Vice President  
Director of Natural Resources

Attachments: V3, Conceptual Opinion of Probable Construction Costs, Willow Road STADI  
HMM, Basis of Estimate for Willow Road STADI Project



## VILLAGE OF WINNETKA

# BASIS OF ESTIMATE

FOR

# WILLOW ROAD STADI PROJECT

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**JUNE 2015**

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**APPENDICES**

- A. Opinion of Probable Construction Costs Summary (*detailed comparison to base estimate*)
- B. Estimate Backup

**1. PURPOSE OF ESTIMATE**

On January 21, 2014, the Village awarded a contract to MWH Americas, Inc. to provide engineering services for the proposed Willow Road Stormwater Tunnel and Area Drainage Improvements (STADI) project. When MWH’s contract was awarded, the project was at the conceptual design level and a significant amount of engineering was required to bring the project to the stage where construction contracts can be executed. MWH has completed the scope of work associated with preliminary design and the current construction cost estimate (base estimate) is significantly higher than the preliminary conceptual estimate of \$34.6M, (prepared in September 2012).

The Village desires to design and implement a cost-effective and feasible flood-risk reduction project for drainage areas susceptible to flooding, and has procured the team of V3 and Hatch Mott MacDonald (HMM) to provide an independent detailed review of the project cost estimate.

**2. COST COMPARISON SUMMARY**

The following table is a summary of the overall construction costs compared to the base estimate. See Appendices for more detailed cost breakdown and estimate backup calculation workbooks.

<b>TABLE 1: SUMMARY OF COST ESTIMATES (\$M)</b>			
<b>Description</b>	<b>MWH Base Estimate</b>	<b>HMM</b>	<b>Difference</b>
1 Mobilization	\$3.19	\$3.26	2%
2 Shafts	\$4.50	\$1.81	-60%
3 Tunnel	\$16.48	\$28.24	71%
4 Outfall Structure	\$4.03	\$3.99	-0.9%
5 Subtotal 1	\$28.19	\$37.30	32%
6 Contingency	\$2.82	\$11.19	297%
7 <b>Total</b>	<b>\$31.0</b>	<b>\$48.5</b>	<b>56%</b>

**3. GENERAL SCOPE OF WORK & PROJECT DESCRIPTION**

The Willow Road STADI Project is a relief storm sewer project intended to provide for the collection and conveyance of excess stormwater from flood-prone areas both east and west of Green Bay Road. During intense events when the capacity of the existing drainage systems is exceeded, the Willow Road STADI Project will serve as an effective outlet to capture and convey excess runoff to a new outfall on Lake Michigan, thereby reducing the risk of structural flooding within the project area.

While there are approximately 5 miles of sewer in total, covering 6 drainage areas, the HMM scope of the estimate included in this memorandum focus on the tunnel contract, envisioned to include the following:

1. **Tunnel:** Approximately 8,500 feet of 96-inch diameter relief sewer constructed as tunnel from Berkeley and Willow to Lake Michigan,
2. **Drop Shafts:** 5 connecting drop structures to connect branch sewers to Willow Tunnel, one of which will serve as the 30-ft excavated diameter mining shaft and the others will be 12-ft diameter drilled shafts.
3. **Outfall:** Structure to discharge flows from tunnel to Lake Michigan. The estimate includes cost for the outfall structure, but not costs for gates and appurtenances, or end-of-pipe treatment and associated structures.

#### 4. ESTIMATE CLASSIFICATION

The cost estimate prepared is a Class 4 Estimate as defined by the Association for the Advancement of Cost Engineering (AACE).

The accuracy of an AACE Class 4 Estimate ranges from -30% to +50%, generally due to the level of project definition at this phase and the impact of the design details of quantity takeoffs and other pricing impacts.

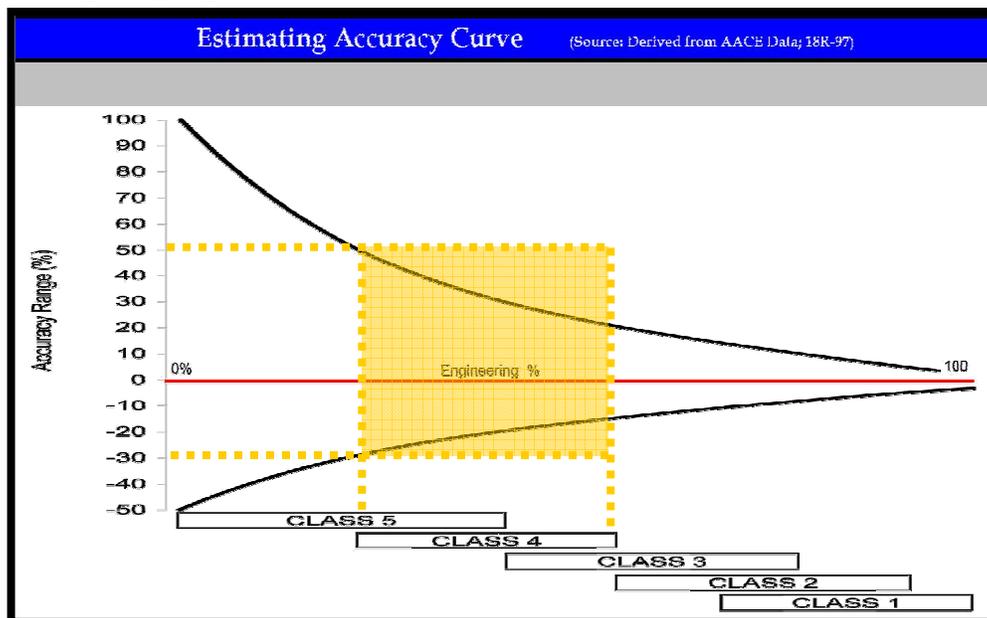


Figure 1: AACE Estimate Classes

#### 5. ESTIMATE METHODOLOGY

The construction cost estimate was mostly developed using HMM's proprietary cost estimating software application known as TED (Tunnel Estimating Database). The database maintains records of advance rates, labor, equipment, and material requirements for particular sizes and types of tunnels. TED models various components of the tunnel construction process by applying appropriate local unit rates and adjustments for ground conditions.

The system is maintained by experienced tunneling engineers with knowledge of tunnel construction processes, equipment, and material requirements. In this way, each new estimate enhances the database of information, and provides the system with greater flexibility and accuracy for the production of future estimates. An important feature of our estimating approach is the ability to accurately gauge the difference between tunnels of different lengths, taking account of the fixed cost that is not affected by length, along with the incremental cost and efficiencies associated with adding length to the tunnel.

Tunnel Work was estimated with TED to create a detailed, bottom-up type estimate based on labor crew size, production rates, and materials/equipment prices – the output is the direct cost to the contractor with appropriate markups (as discussed in the next section) applied to this direct cost.

For site work and the Outfall Structure, assumptions were made on the level of effort and design details (e.g. support system for Outfall excavation), and a combination of bottom-up estimating and unit costs (comprising labor, materials and equipment) were used for these activities.

## 6. MARKUPS

Included in the estimate are the following markups:

<b>TABLE 2: MARKUPS TO DIRECT COSTS</b>		
<b>Item</b>	<b>Value</b>	<b>Comment</b>
Profit	15%	Based on industry averages for tunnel construction.
Overhead	\$2.9M	Indirect costs calculated based on typical resources required throughout the assumed 2-yr duration. These include items such as supervision, survey, vehicles, quality assurance, safety, site office expenses, ablutions.
Contingency	30%	Applied to the aggregate of direct costs plus all other markups. This percentage is considered appropriate for the 30% design level and falls within the expected accuracy range of AACE Class 4 estimate.
Escalation	0%	To match the base estimate, costs are in January 2015 \$USD. No escalation was applied to the estimate. It is assumed that the cost estimate will be refined as the project advances, and these future estimates will bring the costs into present value dollars.
Sales Tax	0%	This project is assumed to be sales tax exempt.
Owner Allowance	0%	N/A
Insurance & Bonding	3%	Typically 2% for insurance and 1% for bonding.

## 7. COST RESOURCES

Cost data was obtained from the following resources and utilized where appropriate based on the estimate methodology for individual cost components:

- HMM Proprietary Software - Tunnel Estimating Database (TED)
- Illinois Department of Commerce Prevailing Wages for Cook County
- Historical project data and experiences
- Vendor quotations or list pricing for materials/equipment
- R.S. Means composite unit costs (where design detail was insufficient for other estimating methodologies)

**8. LABOR COSTS**

Prevailing Wages in Table 2 were obtained for Cook County from the Illinois Department of Commerce. Labor unit prices reflect a burdened rate, inclusive of overtime, workers compensation, unemployment taxes, fringe benefits and medical insurance.

January 2015 wages were used to match the base estimate dollars. Wages were then increased for a period equal to half of the assumed project construction schedule (i.e. 1 year at 4%) to balance additional costs incurred by the contractor due to annual wage increases implemented throughout the course of the project. This markup is different than escalation and is used to account for the cost of extended project duration.

<b>TABLE 2: JANUARY 2015 LABOR RATES FOR COOK COUNTY</b>					
<b>Craft</b>	<b>Base Hourly Rate</b>	<b>Fully Burdened 10-hr Shift Average</b>	<b>Craft</b>	<b>Base Hourly Rate</b>	<b>Fully Burdened 10-hr Shift Average</b>
Labor Foreman	\$ 38.75	\$ 78.77	Surface Laborer	\$ 38.00	\$ 77.75
Loco Driver	\$ 44.75	\$ 95.06	Crane Operator	\$ 49.30	\$ 101.28
TBM Operator	\$ 49.30	\$ 101.28	Grout Plant Operator	\$ 42.70	\$ 92.25
Tunnel Miner	\$ 38.75	\$ 78.77	Concrete Pump Operator	\$ 45.30	\$ 95.81
Cement Mason	\$ 42.58	\$ 84.10	Loader Operator	\$ 44.80	\$ 93.81
Carpenter	\$ 43.35	\$ 88.52	Truck Driver	\$ 34.10	\$ 64.39
Diver	\$ 52.45	\$ 58.31	Piledriver	\$ 43.35	\$ 88.52
Tunnel Mechanic	\$ 43.35	\$ 88.52	Shaft Top	\$ 38.00	\$ 77.75
Tunnel Labor	\$ 38.00	\$ 77.75	Fork Lift Operator	\$ 42.70	\$ 92.25
Tunnel Electrician	\$ 44.00	\$ 90.65	Watch Person	\$ 38.00	\$ 77.75
Welder	\$ 50.95	\$ 102.22	<b>SOURCE:</b> <a href="http://www.illinois.gov/idol/laws-rules/conmed/rates/2015/january/cook9999.htm">http://www.illinois.gov/idol/laws-rules/conmed/rates/2015/january/cook9999.htm</a>		
Shaft Bottom	\$ 44.75	\$ 95.06			
Equipment Labor	\$ 38.00	\$ 77.75			

**9. MAJOR ASSUMPTIONS & ALLOWANCES**

1. The work will be bid and completed on a competitive bid basis and under a single contract.
2. Contractor will have reasonable amount of time to complete the Work.
3. Contractor will have reasonable amount of time during the bid period to review the contract documents/addenda and bid the Work.
4. There will be no lack of funding or labor force.
5. Construction duration = 2 years (source: PDR)
6. Working hours assumed to be one 10-hour shift per day, 5 days per week.
7. Tunnel:
  - a. Tunnel will be mined with an open-faced TBM from JC-1 to the outfall using steel ribs and timber lagging at 4-ft centers.
  - b. Excavated tunnel diameter is 11.5-ft based on pipe OD + 2-ft annulus for initial support and clearance for blocking/grouting RCP into place.
  - c. TBM sustained advance rate of 32 feet/day based on HMM historical data and appropriate learning curve consideration. This daily average can be improved upon if working hours are increased.
  - d. No additional cost included to manage gravel/sand layer at downstream end of alignment. If ground is problematic, this can add considerable cost to the project, which warrants a higher contingency than the 10% used in the base estimate.
8. Outfall Structure will be supported with walers and steel sheeting. No cost assumed for tie backs, non-vibratory installation methods, or slope stabilization.
9. Mobilization Allowances:
  - a. Pre-construction Survey: \$150k based on projects from recent HMM projects of similar magnitude. When considering expensive homes in neighborhood and protection that survey provides to Village to ward off spurious claims, the level of effort in pre-con survey is significant.
  - b. Traffic Control: No traffic control shown on plans so \$500k from base estimate carried over. This cost will largely be based on diameter of intermediate shafts and location of these shafts with respect to lanes and ROW.
  - c. Permits & Plans: Included in indirects and various other work activities.
  - d. Mobilization: 5% of direct costs.
  - e. Control of Water: provisions for sumping and pumping included in associated activities. No additional provisions since PDR states water is not of concern in this geology.
  - f. Instrumentation: No instrumentation shown on plans so \$130k from base estimate carried over.
  - g. Post-construction Survey: \$20k to photograph/video structures along Willow.

**10. EXCLUDED COSTS**

1. Property or easement acquisition.
2. Financing / cost of money.
3. Contingency for unforeseen conditions (natural disasters).
4. Management reserve, construction general allowance, or contingency for project scope modifications, field change orders, etc.
5. Non-construction / soft costs for design and services during construction.
6. Costs associated with construction management, resident project representation, contract administration, and related District overhead costs.
7. Future costs of the project (i.e. O&M, sewer inspection/cleaning, end-of-pipe treatment for effluent dosing and filtration).

**11. REFERENCE DOCUMENTS**

1. "Preliminary Design Report", dated April 2015.
2. "Preliminary Design Submittal" Drawings, dated April 2015.
3. January 2015 Prevailing Wages for Cook County. Illinois Department of Commerce, <http://www.illinois.gov/idol/laws-rules/conmed/rates/2015/january/cook9999.htm>
4. Cost Estimate Classification System, AACE International Recommended Practice No. 18R-97;
5. Sperry, PE. *Estimating Contingencies*. Update to April 1988 Civil Engineering Magazine article, June 1992.

# **APPENDIX A**

## **Opinion of Probable Construction Costs Summary**

Village of Winnetka, Illinois Willow Road STADI Project  
 Willow Road Tunnel and Appurtenances  
 Opinion of Probable Construction Costs

Currency: USD-United States-JANUARY 2015 Dollar

MWH 2015 30% PDR EOPCC				June 2015 Independent OPCC				Delta				
No.	Description	Quantity	Unit Price	Total Price	Comments	Direct Total	Quantity	Unit Price	OH&P Direct x MU Factor	\$	%	
												Grand Total Price: \$ 31,015,000
<b>Mobilization</b>				\$ 3,189,620		\$ 2,496,693			\$ 3,260,750	\$ 71,130	2%	
1	Pre-construction Survey	1 LS	\$ 24,020	\$ 24,020		\$ 150,000	1 AL	\$ 195,904	\$ 195,904	\$ 171,884	716%	
2	Traffic Control	1 LS	\$ 500,000	\$ 500,000		\$ 382,848	1 AL	\$ 500,011	\$ 500,011	\$ 11	0%	
3	Permits & Plans	1 LS	\$ 50,350	\$ 50,350		\$ -	0 LS	\$ -	\$ -	\$ (50,350)	-100%	
4	Erosion Protection	1 LS	\$ 84,650	\$ 84,650		\$ 14,234	1 LS	\$ 18,590	\$ 18,590	\$ (66,060)	-78%	
5	Mobilization	1 LS	\$ 1,912,650	\$ 1,912,650		\$ 1,359,902	5%	\$ 35,521,390	\$ 1,776,069	\$ (136,581)	-7%	
	Site Work					\$ 349,654	1 LS	\$ 456,658	\$ 456,658	\$ 456,658		
6	Control of Water	1 LS	\$ 406,100	\$ 406,100		\$ -	0 LS	\$ -	\$ -	\$ (406,100)	-100%	
7	Instrumentation	1 LS	\$ 129,150	\$ 129,150		\$ 98,889.74	1 AL	\$ 129,153	\$ 129,153	\$ 3	0%	
8	Demobilization	1 LS	\$ 76,500	\$ 76,500		\$ 121,165	1 LS	\$ 158,245	\$ 158,245	\$ 81,745	107%	
9	Post-construction Survey	1 EA	\$ 6,200	\$ 6,200		\$ 20,000	1 AL	\$ 26,121	\$ 26,121	\$ 19,921	321%	
<b>Construction Shafts</b>				\$ 4,499,415		\$ 1,383,806			\$ 1,807,290	\$ (2,692,125)	-60%	
1	Willow Road Construction Shaft	1 LS	\$ 1,589,200	\$ 1,589,200		\$ 463,064	1 LS	\$ 604,774	\$ 604,774	\$ (984,426)	-62%	
2	MH-101, TBM Receiving Shaft	1 LS	\$ 9,834	\$ 9,834		\$ 40,000	42 VF	\$ 1,244	\$ 52,241	\$ 42,407	431%	
3	Intermediate Shafts	3 EA	\$ 275,000	\$ 825,000		\$ -	0 EA	\$ -	\$ -	\$ (825,000)	-100%	
4	JC-1, Willow Road & Berkeley	1 LS	\$ 395,261	\$ 395,261		\$ -	43 VF	\$ -	\$ -	\$ (395,261)	-100%	
5	DS-2, Willow Road & Locust	1 LS	\$ 351,293	\$ 351,293		\$ 217,766	45 VF	\$ 6,320	\$ 284,408	\$ (66,885)	-19%	
6	DS-3, Willow Road & Birch	1 LS	\$ 431,898	\$ 431,898		\$ 266,158	55 VF	\$ 6,320	\$ 347,610	\$ (84,288)	-20%	
7	DS-4, Willow Road & Poplar	1 LS	\$ 349,579	\$ 349,579		\$ 203,248	42 VF	\$ 6,320	\$ 265,448	\$ (84,131)	-24%	
8	DS-5, Willow Road & Woodland	1 LS	\$ 355,950	\$ 355,950		\$ 193,570	40 VF	\$ 6,320	\$ 252,808	\$ (103,142)	-29%	
9	Shaft Restoration	1 LS	\$ 191,400	\$ 191,400		\$ -	1 LS	\$ -	\$ -	\$ (191,400)	-100%	
<b>96" Diameter Tunnel</b>		8,502 LF	\$ 1,938	\$ 16,475,865		\$ 21,619,716	8,500 LF	\$ 3,322	\$ 28,235,951	\$ 11,760,086	71%	
1	96" Diameter Tunnel	8,502 LF	\$ 1,175	\$ 9,989,850		\$ 12,892,446	8,500 LF	\$ 1,981	\$ 16,837,894	\$ 6,848,044	69%	
	TBM Setup					\$ 320,733	1 LS	\$ 418,886	\$ 418,886			
	TBM Tunneling					\$ 11,964,033	8,500 LF	\$ 1,838	\$ 15,625,360			
	TBM Maintenance					\$ 190,594	1 LS	\$ 248,921	\$ 248,921			
	Tunnel Cleanup					\$ 417,086	8,500 LF	\$ 64	\$ 544,726			
2	Retrieve TBM	1 LS	\$ 144,765	\$ 144,765		\$ 63,756	1 LS	\$ 83,267	\$ 83,267	\$ (61,498)	-42%	
3	96" Diameter Pipe Jacked-in Place	8,455 LF	\$ 750	\$ 6,341,250		\$ 8,663,514	8,500 LF	\$ 1,331	\$ 11,314,791	\$ 4,973,541	78%	
<b>Junction Structures</b>				\$ -		\$ -			\$ -			
1	Willow Road & Berkeley Constr. Shaft	1 LS	\$ 280,000			\$ -	1 LS	\$ -	\$ -			
1	Willow Road & Berkeley	1 LS	\$ 126,359			\$ -	1 LS	\$ -	\$ -			
2	Willow Road & Locust	1 LS	\$ 126,359			\$ -	1 LS	\$ -	\$ -			
3	Willow Road & Birch	1 LS	\$ 126,359			\$ -	1 LS	\$ -	\$ -			
4	Willow Road & Poplar	1 LS	\$ 126,359			\$ -	1 LS	\$ -	\$ -			
5	Willow Road & Woodland	1 LS	\$ 126,359			\$ -	1 LS	\$ -	\$ -			
<b>Outfall Structure</b>				\$ 4,030,078		\$ 3,057,720			\$ 3,993,468	\$ (36,610)	-0.9%	
1	Mobilization	1 LS	\$ 187,022	\$ 187,022		\$ -			\$ -			
2	Energy Dissipation Toe Block Piling	1,440 SF	\$ 46	\$ 66,240		\$ -			\$ -			
3	SOE Dissipation Structure	1 LS	\$ 400,194	\$ 400,194		\$ -			\$ -			
4	SOE Outlet Pipe Structure	1 LS	\$ 497,802	\$ 497,802		\$ 1,563,218	1 LS	\$ 2,041,606	\$ 2,041,606	\$ (36,652)	-2%	
5	Backfill Outlet Structure	603 CY	\$ 78	\$ 47,000		\$ -			\$ -			
6	Outfall Structure Concrete	800 CY	\$ 1,100	\$ 880,000		\$ -			\$ -			
7	Stormwater Treatment System	1 LS	\$ 1,551,000	\$ 1,551,000		\$ 1,187,596	1 LS	\$ 1,551,033	\$ 1,551,033	\$ 33	0%	
8	Outfall Structure Mechanical/Electrical	1 LS	\$ 250,820	\$ 250,820		\$ 192,052	1 LS	\$ 250,825	\$ 250,825	\$ 5	0%	
9	Outfall Structure Restoration	1 LS	\$ 150,000	\$ 150,000		\$ 114,855	1 LS	\$ 150,003	\$ 150,003	\$ 3	0%	
<b>Subtotal 1:</b>				\$ 28,194,980		\$ 28,557,940			\$ 37,297,460	\$ 9,102,480	32%	
<b>Markups</b>				\$ -		\$ 8,739,525			\$ -			
		MU Factor: 1.00					MU Factor: 1.31					
1	Subcontractor Markups	1 LS	0%	\$ -		\$ -	0%					
2	Prime Contractor OH&P on Subs	1 LS	0%	\$ -		\$ -	0%					
3	Prime Contractor OH&P on Self-Perform	1 LS	0%	\$ -		\$ -	0%					
	<i>Overhead / Indirect Profit</i>					\$ 2,930,000	10%					
						\$ 4,723,191	15%					
4	Bonding & Insurance	1 LS	0%	\$ -		\$ 1,086,334	3%					
5	State Sales Taxes	1 LS	0%	\$ -	Excluded	\$ -	0%					
6	Escalation	1 LS	0%	\$ -	Excluded	\$ -	0%					
<b>Subtotal 2:</b>				\$ 28,194,980	Total Estimated Co	\$ 37,297,465			\$ 37,297,460	\$ 9,102,480	32%	
<b>Contingency</b>				\$ 2,819,498				30%	\$ 11,189,238	\$ 8,369,740	297%	
<b>MWH Total Estimated Bid Price:</b>				\$ 31,015,000		<b>HMM Total Estimated Bid Price:</b>				\$ 48,487,000	\$ 17,472,000	56%

COMBINED WITH CONSTRUCTION SHAFTS ABOVE

# **APPENDIX B**

## Estimate Backup



# Hatch Mott MacDonald

## Detailed Cost Estimate Report

<b>Project:</b>	Winnetka STADI	<b>Project Number:</b>	358815
<b>Estimate Description:</b>	Mobilization	<b>Parent Estimate ID:</b>	N/A
<b>Tunnel Name:</b>	STADI	<b>Project Phase:</b>	30%
<b>Construction Activity:</b>	Site Work & Restoration	<b>Geology Type:</b>	N/A
<b>Tunnel Technique:</b>	N/A	<b>Estimate Date:</b>	6/25/2015
<b>Estimate Definition ID:</b>	N/A	<b>Tunnel Characteristics ID:</b>	N/A

### Site Dimensions

Description	Quantity	Unit	Unit Price	Total
<b>Site Work</b>				
<i>Fencing</i>				
8' Chain Link Fence	1200	lf	\$ 43.15	51,776
24" Manual Swing Gate	2	ea	\$ 2,652	5,303
<i>Site Preparation</i>				
Stripping, storage of topsoil - 10 in	2,469	cy	\$ 2.67	6,587
Gravel Base				
Compact Subgrade per ODOT Item 203	8,889	sy	\$ 2.57	22,815
Geotextile Filter Fabric	8,889	sy	\$ 4.74	42,099
Stone - 10 in	2,469	cy	\$ 30.00	74,074
<i>Utilities</i>				
Install Electrical Duct Bank/Energize	1	ls	\$ 75,000	75,000
<i>Site Maintenance</i>				
Snow Removal, Dust Control, Roadway Cleaning	24	mo.	\$ 3,000	72,000
<b>Total Estimated Cost:</b>				<b>\$349,654</b>

### Restoration

<i>Disposal</i>				
Remove All Temporary Fencing	5958	lf	\$ 2.22	13,256
Excavate Temporary Construction Bases	2469	cy	\$ 3.22	7,951
Haul Base Materials Off Site	2469	cy	\$ 15.00	37,037
<i>Seeding</i>				
Topsoil Placement/Grading	20134	sy	\$ 2.55	51,317
Seeding	8889	sy	\$ 1.31	11,604
<b>Total Estimated Cost:</b>				<b>\$121,165</b>

### Erosion Control/SWPPP

Rock Construction Entrance (ODOT #2 Stone)	2	ea	\$ 600	1,200
Concrete Washout Pit	1	ea	\$ 1,300	1,300
Silt Fence	1200	lf	\$ 5.02	6,029
Temporary Sediment Trap				
Excavate Pit	350	cy	\$ 9.75	3,413
Geotextile	96	sy	\$ 4.74	455
ODOT Type D Rip-Rap	3	cy	\$ 100	300
Dandy Curb Bags for Inlet Protection	20	ea	\$ 77	1,538
<b>Total Estimated Cost:</b>				<b>\$14,234</b>



**Detailed Cost Estimate Report**

**Project:** Winnetka Stormwater Tunnel  
**Estimate Description:** JC-1 Mining Shaft  
**Tunnel Name:** STADI-Launch Shaft  
**Construction Activity:** Launch Shaft  
**Estimate Definition ID:** 7074

**Project Number:** 358815  
**Parent Estimate ID:** 6792  
**Project Phase:** 30%  
**Geology Type:** Firm soils  
**Estimate Date:** June 23, 2015  
**Tunnel Characteristics ID:** 2965

**GENERAL**

Shaft Excavation Area **707 ft2**  
 Shaft Finished Area **113.10 ft2**  
 Shaft Depth **43.00 ft**  
 Shaft Perimeter **94.3 ft**  
 Excavation Quantity **1,126 Cubic Yards**

**PRE-SUPPORT**

Shaft excavation support type **Liner plate & r**  
 Number piles/wall **1 (1 for slurry wall)**  
 Pile Depth **0 ft**  
 Excavation Support Advance Rate **0.00 ft/hr**

**FINAL SUPPORT**

Shaft final lining type **Concrete pipe + backfill**  
 Final liner installation rate **2.6 ft/hr**

**PRE-TREATMENT**

Treatment type **None**  
 Treated area **0 ft2**  
 Treated depth **0 ft**  
 Treatment rate **0 yd3/hr**

**EXCAVATE/PRIMARY SUPPORT**

Shaft excavation type **Excavation**  
 Shaft Advance Rate **150.00 yd3/day**  
 Excavation primary support advance rate **100 yd2/hr**

**SHIFT DETAILS**

Shift Arrangement **1 - 10 hour shifts x 5 days per week**  
 Avg. Advance per Shift **2.84 Feet**  
 Avg. Advance per Week **14.18 Feet**  
 Total number of hours **152**

**SHAFT CONSTRUCTION DATA**

	<u>Average Advance</u>	<u>Quantity</u>	<u>Unit</u>		<u>Excavation Duration</u>		
<b>Pre-treatment</b>	0.0 yd3/day	0	yd3	0.0 Shifts	0.0 Days	0.00 Weeks	
<b>Pre-support</b>	0.0 ft/day	0	ft	0.0 Shifts	0.0 Days	0.00 Weeks	
<b>Excavation</b>	150.0 yd3/day	1,126	yd3	8.0 Shifts	8.0 Days	1.60 Weeks	
<b>Primary support</b>	90.0 yd2/day	451	yd2	5.0 Shifts	5.0 Days	1.00 Weeks	
<b>Final support</b>	20.0 ft/day	43	ft	2.2 Shifts	2.2 Days	0.43 Weeks	
<b>Total:</b>				<b>15 Shifts</b>	<b>15.2 Days</b>	<b>3.03 Weeks</b>	

<b>Labor</b>	<b>Unit Rate</b>	<b><u>PRE- TREATMENT</u></b>			<b><u>PRE-SUPPORT</u></b>			<b><u>EXCAVATE / PRIMARY SUPPORT</u></b>			<b><u>FINAL SUPPORT</u></b>			<b>Grand Total</b>
		<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	
Shifter	\$77.75 \$/hr	0	0	\$0	0	0	\$0	130	1	\$10,108	22	0	\$0	<b>\$10,108</b>
Tunnel miner	\$78.77 \$/hr	0	0	\$0	0	0	\$0	130	1	\$10,240	0	0	\$0	<b>\$10,240</b>
Concrete Laborer	\$0.00 \$/hr	0	0	\$0	0	0	\$0	0	0	\$0	22	2	\$0	<b>\$0</b>
Laborer	\$77.75 \$/hr	0	0	\$0	0	0	\$0	130	3	\$30,323	22	2	\$3,421	<b>\$33,744</b>
Concrete Pump Operator	\$95.81 \$/hr	0	0	\$0	0	0	\$0	0	0	\$0	22	1	\$2,108	<b>\$2,108</b>
Foreman	\$78.77 \$/hr	0	0	\$0	0	0	\$0	0	0	\$0	22	1	\$1,733	<b>\$1,733</b>
Shaft bottom	\$95.06 \$/hr	0	0	\$0	0	0	\$0	130	2	\$24,716	0	0	\$0	<b>\$24,716</b>
Welder	\$101.22 \$/hr	0	0	\$0	0	0	\$0	130	1	\$13,159	22	0	\$0	<b>\$13,159</b>
Shaft top	\$77.75 \$/hr	0	0	\$0	0	0	\$0	0	0	\$0	22	1	\$1,711	<b>\$1,711</b>
Crane operator	\$101.28 \$/hr	0	0	\$0	0	0	\$0	130	1	\$13,166	22	1	\$2,228	<b>\$15,395</b>
Loader operator	\$93.81 \$/hr	0	0	\$0	0	0	\$0	130	1	\$12,195	22	0	\$0	<b>\$12,195</b>
Excavator Operator	\$93.81 \$/hr	0	0	\$0	0	0	\$0	130	1	\$12,195	22	0	\$0	<b>\$12,195</b>
Tunnel mechanic	\$88.52 \$/hr	0	0	\$0	0	0	\$0	130	1	\$11,508	0	0	\$0	<b>\$11,508</b>
				<b>\$0</b>			<b>\$0</b>			<b>\$137,609</b>			<b>\$11,200</b>	<b>\$148,809</b>

<b>Equipment</b>	<b>Unit Rate</b>	<b><u>PRE- TREATMENT</u></b>			<b><u>PRE-SUPPORT</u></b>			<b><u>EXCAVATE / PRIMARY SUPPORT</u></b>			<b><u>FINAL SUPPORT</u></b>			<b>Grand Total</b>
		<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	
150T Crane	\$5,000.00 \$/wk	0	0	\$0	0	0	\$0	2.6	1	\$13,000	0	0	\$0	<b>\$13,000</b>
Small tools	\$148,809.00 \$/Nr	0	0	\$0	0	0	\$0	1	0.1	\$14,881	0	0	\$0	<b>\$14,881</b>
Shaft crane	\$5,000.00 \$/wk	0	0	\$0	0	0	\$0	2.6	0	\$0	0.43	1	\$2,150	<b>\$2,150</b>
Compressors	\$820.00 \$/wk	0	0	\$0	0	0	\$0	2.6	1	\$2,132	0.43	0	\$0	<b>\$2,132</b>
Generators	\$1,860.00 \$/wk	0	0	\$0	0	0	\$0	2.6	1	\$4,836	0.43	0	\$0	<b>\$4,836</b>
Loaders	\$2,200.00 \$/wk	0	0	\$0	0	0	\$0	2.6	1	\$5,720	0.43	0	\$0	<b>\$5,720</b>
Excavator	\$3,500.00 \$/wk	0	0	\$0	0	0	\$0	2.6	1	\$9,100	0.43	0	\$0	<b>\$9,100</b>
Muck bucket	\$700.00 \$/wk	0	0	\$0	0	0	\$0	2.6	2	\$3,640	0.43	0	\$0	<b>\$3,640</b>
Pumps	\$300.00 \$/wk	0	0	\$0	0	0	\$0	2.6	2	\$1,560	0.43	0	\$0	<b>\$1,560</b>
Welding machine	\$500.00 \$/wk	0	0	\$0	0	0	\$0	2.6	1	\$1,300	0.43	0	\$0	<b>\$1,300</b>
				<b>\$0</b>			<b>\$0</b>			<b>\$56,169</b>			<b>\$2,150</b>	<b>\$58,319</b>

Estimate Definition ID: 7074

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<b>Consumables</b>	Unit Rate		<u>PRE- TREATMENT</u>			<u>PRE-SUPPORT</u>			<u>EXCAVATE / PRIMARY SUPPORT</u>			<u>FINAL SUPPORT</u>			Grand Total
			UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	
Electrical power	\$0.18	\$/kwh	0	0	\$0	0	0	\$0	130	200	\$4,680	22	0	\$0	<b>\$4,680</b>
Gas oil	\$3.75	\$/gal	0	0	\$0	0	0	\$0	4	1000	\$15,000	0	0	\$0	<b>\$15,000</b>
Hydraulic oil	\$20.00	\$/gal	0	0	\$0	0	0	\$0	4	100	\$8,000	0	0	\$0	<b>\$8,000</b>
					<b>\$0</b>			<b>\$0</b>			<b>\$27,680</b>			<b>\$0</b>	<b>\$27,680</b>

<b>Materials</b>	Unit Rate		<u>PRE- TREATMENT</u>			<u>PRE-SUPPORT</u>			<u>EXCAVATE / PRIMARY SUPPORT</u>			<u>FINAL SUPPORT</u>			Grand Total
			UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	
Steel Ribs	\$2.10	\$/lb	0	0	\$0	0	0	\$0	2323	11	\$53,661	0	0	\$0	<b>\$53,661</b>
Framed Penetration	\$25,000.00	\$/Nr	0	0	\$0	0	0	\$0	1	1	\$25,000	0	0	\$0	<b>\$25,000</b>
Concrete Mud Mat	\$100.00	\$/yd3	0	0	\$0	0	0	\$0	20	1	\$2,000	0	0	\$0	<b>\$2,000</b>
Lagging	\$4.00	\$/ft2	0	0	\$0	40	0	\$0	4055	1	\$16,220	0	0	\$0	<b>\$16,220</b>
Pipe & gasket	\$811.20	\$/Nr	0	0	\$0	0	0	\$0	0	0	\$0	37	1	\$30,014	<b>\$30,014</b>
Backfill	\$80.00	\$/yd3	0	0	\$0	0	0	\$0	0	0	\$0	1012	1.05	\$85,008	<b>\$85,008</b>
Hoarding Site Limit	\$32.00	\$/ft2	0	0	\$0	0	0	\$0	200	1	\$6,400	0	0	\$0	<b>\$6,400</b>
					<b>\$0</b>			<b>\$0</b>			<b>\$103,281</b>			<b>\$115,022</b>	<b>\$218,304</b>

<b>Subcontracts</b>	Unit Rate		<u>PRE- TREATMENT</u>			<u>PRE-SUPPORT</u>			<u>EXCAVATE / PRIMARY SUPPORT</u>			<u>FINAL SUPPORT</u>			Grand Total
			UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	
Shaft Muck disposal	\$20.00	\$/yd3	0	0	\$0	524	0	\$0	311	1.6	\$9,952	0	0	\$0	<b>\$9,952</b>
					<b>\$0</b>			<b>\$0</b>			<b>\$9,952</b>			<b>\$0</b>	<b>\$9,952</b>

<b>Total Pre-Treatment Cost:</b>	\$0
<b>Total Pre-Support Cost:</b>	\$0
<b>Total Excavate / Primary Support Cost:</b>	\$334,691
<b>Total Final Support Cost:</b>	\$128,373
<b>Total Estimated Cost:</b>	<b>\$463,064</b>
<b>Total Estimated Cost per Foot:</b>	\$10,769
<b>Total Estimated Cost per Week:</b>	\$152,668
<b>Total Estimated Cost per Shift:</b>	\$30,534



**Detailed Cost Estimate Report**

**Project:** Winnetka Stormwater Tunnel  
**Estimate Description:** Intermediate Shaft  
**Tunnel Name:** Intermediate Shaft  
**Construction Activity:** Removal Shaft  
  
**Estimate Definition ID:** 7076

**Project Number:** 358815  
**Parent Estimate ID:** 7075  
**Project Phase:** 30%  
**Geology Type:** Not Applicable  
**Estimate Date:** June 24, 2015  
**Tunnel Characteristics ID:** 2967

**GENERAL**

Shaft Excavation Area **153.86 ft<sup>2</sup>**  
 Shaft Finished Area **113.04 ft<sup>2</sup>**  
 Shaft Depth **45.00 ft**  
 Shaft Perimeter **43.96 ft**  
 Excavation Quantity **256 Cubic Yards**

**PRE-SUPPORT**

Shaft excavation support type **Soldier piles &**  
 Number piles/wall **11 (1 for slurry wall)**  
 Pile Depth **50 ft**  
 Excavation Support Advance Rate **0.00 ft/hr**

**FINAL SUPPORT**

Shaft final lining type **Mass concrete**  
 Final liner installation rate **2.6 ft/hr**

**PRE-TREATMENT**

Treatment type **None**  
 Treated area **0 ft<sup>2</sup>**  
 Treated depth **0 ft**  
 Treatment rate **0 yd<sup>3</sup>/hr**

**EXCAVATE/PRIMARY SUPPORT**

Shaft excavation type **Excavation + lagging**  
 Shaft Advance Rate **170.00 yd<sup>3</sup>/day**  
 Excavation primary support advance rate **100 yd<sup>2</sup>/hr**

**SHIFT DETAILS**

Shift Arrangement **1 - 10 hour shifts x 5 days per week**  
 Avg. Advance per Shift **6.49 Feet**  
 Avg. Advance per Week **32.43 Feet**  
 Total number of hours **69**

**SHAFT CONSTRUCTION DATA**

	<u>Average Advance</u>	<u>Quantity</u>	<u>Unit</u>		<u>Excavation Duration</u>	
<b>Pre-treatment</b>	0.0 yd <sup>3</sup> /day	0	yd <sup>3</sup>	0.0 Shifts	0.0 Days	0.00 Weeks
<b>Pre-support</b>	0.0 ft/day	50	ft	0.0 Shifts	0.0 Days	0.00 Weeks
<b>Excavation</b>	170.0 yd <sup>3</sup> /day	256	yd <sup>3</sup>	2.0 Shifts	2.0 Days	0.40 Weeks
<b>Primary support</b>	81.5 yd <sup>2</sup> /day	220	yd <sup>2</sup>	2.7 Shifts	2.7 Days	0.54 Weeks
<b>Final support</b>	20.2 ft/day	45	ft	2.2 Shifts	2.2 Days	0.45 Weeks
<b>Total:</b>				<b>7 Shifts</b>	<b>6.9 Days</b>	<b>1.39 Weeks</b>

<b>Labor</b>	<b>Unit Rate</b>	<b><u>PRE- TREATMENT</u></b>			<b><u>PRE-SUPPORT</u></b>			<b><u>EXCAVATE / PRIMARY SUPPORT</u></b>			<b><u>FINAL SUPPORT</u></b>			<b>Grand Total</b>
		<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	
Shifter	\$78.77 \$/hr	0	0	\$0	0	0	\$0	47	1	\$3,702	22	1	\$1,733	<b>\$5,435</b>
Tunnel miner	\$78.77 \$/hr	0	0	\$0	0	0	\$0	47	1	\$3,702	22	1	\$1,733	<b>\$5,435</b>
Laborer	\$77.75 \$/hr	0	0	\$0	0	0	\$0	47	2	\$7,309	22	2	\$3,421	<b>\$10,730</b>
Shaft bottom	\$95.06 \$/hr	0	0	\$0	0	0	\$0	47	1	\$4,468	0	0	\$0	<b>\$4,468</b>
Welder	\$102.22 \$/hr	0	0	\$0	0	0	\$0	47	1	\$4,804	22	1	\$2,249	<b>\$7,053</b>
Shaft top	\$77.75 \$/hr	0	0	\$0	0	0	\$0	47	1	\$3,654	0	0	\$0	<b>\$3,654</b>
Crane operator	\$101.28 \$/hr	0	0	\$0	0	0	\$0	47	1	\$4,760	22	1	\$2,228	<b>\$6,988</b>
Loader operator	\$93.81 \$/hr	0	0	\$0	0	0	\$0	47	1	\$4,409	22	1	\$2,064	<b>\$6,473</b>
Excavator Operator	\$93.81 \$/hr	0	0	\$0	0	0	\$0	47	1	\$4,409	0	0	\$0	<b>\$4,409</b>
				<b>\$0</b>			<b>\$0</b>			<b>\$41,218</b>			<b>\$13,428</b>	<b>\$54,645</b>

<b>Equipment</b>	<b>Unit Rate</b>	<b><u>PRE- TREATMENT</u></b>			<b><u>PRE-SUPPORT</u></b>			<b><u>EXCAVATE / PRIMARY SUPPORT</u></b>			<b><u>FINAL SUPPORT</u></b>			<b>Grand Total</b>
		<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	
150T Crane	\$5,000.00 \$/wk	0	0	\$0	0	0	\$0	0.94	1	\$4,700	0.45	1	\$2,250	<b>\$6,950</b>
Small tools	\$54,645.00 \$/Nr	0	0	\$0	0	0	\$0	1	0.1	\$5,465	0	0	\$0	<b>\$5,465</b>
Compressors	\$820.00 \$/wk	0	0	\$0	0	0	\$0	0.94	1	\$771	0.45	0	\$0	<b>\$771</b>
Loaders	\$2,200.00 \$/wk	0	0	\$0	0	0	\$0	0.94	1	\$2,068	0	0	\$0	<b>\$2,068</b>
Concrete pumps	\$4,000.00 \$/wk	0	0	\$0	0	0	\$0	0.94	0	\$0	0.45	1	\$1,800	<b>\$1,800</b>
Excavator	\$4,000.00 \$/wk	0	0	\$0	0	0	\$0	0.94	1	\$3,760	0	0	\$0	<b>\$3,760</b>
Muck bucket	\$700.00 \$/wk	0	0	\$0	0	0	\$0	0.94	1	\$658	0	0	\$0	<b>\$658</b>
Pumps	\$300.00 \$/wk	0	0	\$0	0	0	\$0	0.94	1	\$282	0.45	0	\$0	<b>\$282</b>
Welding machine	\$500.00 \$/wk	0	0	\$0	0	0	\$0	0.94	1	\$470	0	0	\$0	<b>\$470</b>
				<b>\$0</b>			<b>\$0</b>			<b>\$18,173</b>			<b>\$4,050</b>	<b>\$22,223</b>

<b>Consumables</b>	<b>Unit Rate</b>	<b><u>PRE- TREATMENT</u></b>			<b><u>PRE-SUPPORT</u></b>			<b><u>EXCAVATE / PRIMARY SUPPORT</u></b>			<b><u>FINAL SUPPORT</u></b>			<b>Grand Total</b>
		<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	<b>UQ</b>	<b>RQ</b>	<b>Total</b>	
Electrical power	\$0.18 \$/kwh	0	0	\$0	0	0	\$0	47	200	\$1,692	0	0	\$0	<b>\$1,692</b>
Hydraulic oil	\$20.00 \$/gal	0	0	\$0	5	0	\$0	1	100	\$2,000	0	0	\$0	<b>\$2,000</b>
Fuel	\$3.75 \$/gal	0	0	\$0	5	0	\$0	1	1000	\$3,750	0	0	\$0	<b>\$3,750</b>
				<b>\$0</b>			<b>\$0</b>			<b>\$7,442</b>			<b>\$0</b>	<b>\$7,442</b>

Estimate Definition ID: 7076

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Materials	Unit Rate	PRE- TREATMENT			PRE-SUPPORT			EXCAVATE / PRIMARY SUPPORT			FINAL SUPPORT			Grand Total
		UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	
Steel Ribs	\$2.10 \$/lb	0	0	\$0	0	0	\$0	1083	11	\$25,017	0	0	\$0	\$25,017
Framed Penetration	\$25,000.00 \$/Nr	0	0	\$0	0	0	\$0	1	2	\$50,000	0	0	\$0	\$50,000
Lagging	\$4.00 \$/ft2	0	0	\$0	4080	0	\$0	45	40	\$7,200	0	0	\$0	\$7,200
Pipe & gasket	\$811.20 \$/Nr	0	0	\$0	0	0	\$0	10	0	\$0	37	1	\$30,014	\$30,014
Backfill	\$80.00 \$/yd3	0	0	\$0	0	0	\$0	0	0	\$0	138	1.05	\$11,592	\$11,592
				\$0			\$0			\$82,217			\$41,606	\$123,824

Subcontracts	Unit Rate	PRE- TREATMENT			PRE-SUPPORT			EXCAVATE / PRIMARY SUPPORT			FINAL SUPPORT			Grand Total
		UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	
Shaft Muck disposal	\$20.00 \$/yd3	0	0	\$0	4750	0	\$0	256	1.6	\$8,192	0	0	\$0	\$8,192
Bottom Slab	\$120.00 \$/yd3	0	0	\$0	0	0	\$0	12	1	\$1,440	0	0	\$0	\$1,440
				\$0			\$0			\$9,632			\$0	\$9,632

Total Pre-Treatment Cost:	\$0
Total Pre-Support Cost:	\$0
Total Excavate / Primary Support Cost:	\$158,682
Total Final Support Cost:	\$59,084
<b>Total Estimated Cost:</b>	<b>\$217,766</b>
Total Estimated Cost per Foot:	\$4,839
Total Estimated Cost per Week:	\$156,955
Total Estimated Cost per Shift:	\$31,391

Shaft/ Structure	DIAMETER (ft)		Depth VF	COST	
	Excavated	Finished		Direct Cost	\$/VF
DS-2	14	8	45	\$ 217,766	\$4,839
DS-3	14	8	55	\$ 266,158	
DS-4	14	8	42	\$ 203,248	
DS-5	14	8	40	\$ 193,570	
MH-101	within outfall excavation	8	42	\$ 40,000	\$ 952

For intermediate shafts, take cost for DS-2 to develop cost per foot and apply to depths for remaining shafts.

For MH-101, assume manhole will be installed within steel sheeted shaft for outfall excavation, so cost will only be to insert pipe within this excavation - assume tunnel pipe cost + 17%



## Detailed Cost Estimate Report

<b>Project:</b>	Winnetka Stormwater Tunnel	<b>Project Number:</b>	358815
<b>Estimate Description:</b>	Set up TBM	<b>Parent Estimate ID:</b>	6786
<b>Tunnel Name:</b>	Willow Road Stadi	<b>Project Phase:</b>	30%
<b>Construction Activity:</b>	Erect TBM Only	<b>Geology Type:</b>	Firm soils
<b>Tunnel Technique:</b>	Open face TBM - Concrete pipe	<b>Estimate Date:</b>	June 22, 2015
<b>Estimate Definition ID:</b>	7069	<b>Tunnel Characteristics ID:</b>	2964

**Tunnel Characteristics**

**Finished Diameter:** 8 ft

**Activity Details**

**Shift Arrangement** 1 - 10 hour shifts x 5 days per week

**Duration of Activity** 2 Weeks

**Total Number of Shifts** 10

<b>Resource Name</b>	<b>Unit Rate</b>	<b>UOM</b>	<b>Unit Quantity</b>	<b>Resource Quantity</b>	<b>Total</b>
<b>Labor</b>					
Miner Electrician	90.65	\$/hr	100.00	1.00	9,065
Laborer	77.75	\$/hr	100.00	2.00	15,550
Foreman	78.77	\$/hr	100.00	1.00	7,877
Welder	102.22	\$/hr	100.00	1.00	10,222
Crane operator	101.28	\$/hr	100.00	1.00	10,128
Loader operator	93.81	\$/hr	100.00	1.00	9,381
				<b>7.00</b>	<b>\$62,223</b>
<b>Equipment</b>					
150T Crane	5,000.00	\$/wk	2.00	1.00	10,000
Shaft Crane Transportation	22,000.00	\$/Nr	1.00	1.00	22,000
Compressors	820.00	\$/wk	2.00	1.00	1,640
Generators	1,860.00	\$/wk	2.00	1.00	3,720
Loaders	2,200.00	\$/wk	2.00	1.00	4,400
Power Cable	2,000.00	\$/wk	2.00	1.00	4,000
Welding machine	500.00	\$/wk	2.00	1.00	1,000
					<b>\$46,760</b>
<b>Consumables</b>					
Electrical power	0.17	\$/kwh	100.00	400.00	6,800
Lubrication materials	100.00	\$/wk	2.00	1.00	200
Hydraulic oil	20.00	\$/gal	10,000.00	1.00	200,000
Fuel	3.75	\$/gal	1,000.00	1.00	3,750
					<b>\$210,750</b>
<b>Materials</b>					
Temporary materials	500.00	\$/wk	2.00	1.00	1,000
					<b>\$1,000</b>

Resource Name	Unit Rate	UOM	Unit Quantity	Resource Quantity	Total
<b>Total Estimated Cost:</b>					\$320,733



## Detailed Cost Estimate Report

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**Project:** Winnetka Stormwater Tunnel  
**Estimate Description:** Drv.1-TBM Tunnelling  
**Tunnel Name:** Willow Road Stadi  
**Construction Activity:** TBM Tunneling  
**Tunnel Technique:** Open face TBM - Concrete pipe  
**Estimate Definition ID:** 7068

**Project Number:** 358815  
**Parent Estimate ID:** 6785  
**Project Phase:** 30%  
**Geology Type:** Firm soils  
**Estimate Date:** June 22, 2015  
**Tunnel Characteristics ID:** 2964

### Tunnel Characteristics

**Tunnel Length:** 8,500 ft  
**Finished Diameter:** 8 ft  
**Initial Support Type:** Ribs & timber lagging  
**Initial Support Thickness:** 0.25 ft  
**Final Lining Thickness:** 0.75 ft  
**Grout Thickness:** 0.75 ft

### Theoretical Excavation Volumes

**Total Neat Excavation:** 32,755 Cubic Yards  
**Initial Lining Volume:** 2,786 Cubic Yards  
**Final Lining Volume:** 6,501 Cubic Yards  
**Theoretical Grout Volume:** 7,616 Cubic Yards

### Normal Excavation/Support Cycle

**Excavation Cycle Length:** 4 Feet  
**Excavate:** 12 Minutes  
**Erect Support:** 19 Minutes  
**Extend Services:** 8 Minutes  
**Total Cycle Time:** 39 Minutes

### Difficult Excavation/Support Cycle

**Length of Difficult Excavation:** 40 Feet  
**Excavate:** 30 Minutes  
**Erect Support:** 50 Minutes  
**Extend Services:** 20 Minutes  
**Total Cycle Time:** 100 Minutes

### Reduction Factors

**Machine availability:** 85 %  
**Back up efficiency:** 70 %  
**Planned maintenance:** 10 %  
**Learning curve efficiency:** 40 %  
**Learning curve duration time:** 3 Weeks

**Learning Curve Rate:** 13.2 ft/day  
**Experienced Advance Rate:** 33.0 ft/day  
**Difficult Advance Rate:** 12.9 ft/day

### TBM Skidding Through Excavation

**Duration of skidding:** 0 Weeks  
**Length of skidding:** 0 Feet

### Advance Rate and Shift Details

**Shift Arrangement:** 1 - 10 hour shifts x 5 days per week  
**Avg. Drive Advance per Shift:** 31.56 Feet  
**Avg. Drive Advance per Day:** 32 Feet  
**Avg. Drive Advance per Week:** 158 Feet  
**Duration of Tunneling (Incl. Skid):** 53.77 Weeks  
**Total number of shifts (Incl. Skid):** 269

	Feet	Days
<b>Learning Curve Drive:</b>	198	15
<b>Experienced Drive:</b>	8,262	251
<b>Difficult Drive:</b>	40	3
<b>Skidding Portion:</b>	0	0

Estimate Definition ID: 7068

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Resource Name	Unit Rate	UOM	Unit Quantity	Resource Quantity	Total
<b>Labor</b>					
Miner Electrician	90.65	\$/hr	2,693.00	0.50	122,064
Tunnel laborer	77.75	\$/hr	2,693.00	3.00	628,142
Foreman	78.77	\$/hr	2,693.00	1.00	212,128
Loco driver	95.06	\$/hr	2,693.00	1.00	255,997
Shaft bottom	95.06	\$/hr	2,693.00	2.00	511,993
TBM operator	101.28	\$/hr	2,693.00	1.00	272,747
Welder	102.22	\$/hr	2,693.00	0.50	137,639
Shaft top	77.75	\$/hr	2,693.00	1.00	209,381
Crane operator	101.28	\$/hr	2,693.00	1.00	272,747
Loader operator	93.81	\$/hr	2,693.00	1.00	252,630
Fork Lift Operator	92.25	\$/hr	2,693.00	1.00	248,429
				<b>13.00</b>	<b>\$3,123,898</b>
<b>Equipment</b>					
TBM	3,000,000.00	\$/Nr	1.00	0.40	1,200,000
Loco	10,000.00	\$/wk	53.77	2.00	1,075,400
Muck cars	15,000.00	\$/Nr	1.00	8.00	120,000
Flat cars	15,000.00	\$/Nr	1.00	2.00	30,000
150T Crane	5,000.00	\$/wk	53.77	1.00	268,850
Track	60.00	\$/ft	8,500.00	1.00	510,000
Air pipe	15.00	\$/ft	8,500.00	1.00	127,500
Water pipe	10.00	\$/ft	8,500.00	1.00	85,000
Cabling	20.00	\$/ft	8,500.00	1.00	170,000
Lighting	12.00	\$/ft	8,500.00	1.00	102,000
Vent ducting	8.00	\$/ft	8,500.00	1.00	68,000
Vent Fans	15.00	\$/ft	8,500.00	1.00	127,500
Grout pumps	2,500.00	\$/wk	53.77	1.00	134,425
Small tools	3,123,898.00	\$/Nr	1.00	0.10	312,390
Shaft Crane Transportation	10,500.00	\$/Nr	1.00	0.20	2,100
Compressors	820.00	\$/wk	53.77	1.00	44,091
Generators	1,860.00	\$/wk	53.77	1.00	100,012
Loaders	2,200.00	\$/wk	53.77	1.00	118,294
Muck bucket	200.00	\$/wk	53.77	2.00	21,508
Welding machine	500.00	\$/wk	53.77	1.00	26,885
TBM Transportation	50,000.00	\$/Nr	1.00	1.00	50,000
					<b>\$4,693,955</b>
<b>Consumables</b>					
Electrical power	0.18	\$/kwh	2,693.00	200.00	96,948
Filters etc.	870.00	\$/wk	53.77	1.00	46,780
Hydraulic oil	20.00	\$/gal	14.00	100.00	28,000
Other consumables	200.00	\$/wk	53.77	1.00	10,754
Fuel	3.75	\$/gal	14.00	800.00	42,000
					<b>\$224,482</b>

Estimate Definition ID: 7068

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Resource Name	Unit Rate	UOM	Unit Quantity	Resource Quantity	Total
<b>Materials</b>					
Other materials	500.00	\$/wk	53.77	1.00	26,885
Concrete Mud Mat	150.00	\$/yd3	32,755.00	0.00	4,913
Lagging	200.00	\$/ft	8,500.00	1.00	1,700,000
Steel ribs	1.30	\$/Nr	494.00	1,700.00	1,091,740
					\$2,823,538
<b>Subcontracts</b>					
Muck disposal	20.00	\$/yd3	32,755.00	1.60	1,048,160
Thrust block	50,000.00	\$/Nr	1.00	1.00	50,000
					\$1,098,160

<b>Total Estimated Cost:</b>	\$11,964,033
<b>Total Estimated Cost per Foot:</b>	\$1,408
<b>Total Estimated Cost per Week:</b>	\$222,516
<b>Total Estimated Cost per Shift:</b>	\$44,421



## Detailed Cost Estimate Report

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**Project:** Winnetka Stormwater Tunnel  
**Estimate Description:** Maint.TBM  
**Tunnel Name:** Willow Road Stadi  
**Construction Activity:** TBM Maintenance  
**Tunnel Technique:** Open face TBM - Concrete pipe  
**Estimate Definition ID:** 7070

**Project Number:** 358815  
**Parent Estimate ID:** 6787  
**Project Phase:** 30%  
**Geology Type:** Firm soils  
**Estimate Date:** June 22, 2015  
**Tunnel Characteristics ID:** 2964

**Tunnel Characteristics**

**Finished Diameter:** 8 ft

**Activity Details**

**Shift Arrangement** 1 - 8 hour shifts x 1 days per week

**Duration of Activity** 20.56 Weeks

**Total Number of Shifts** 20.56

Resource Name	Unit Rate	UOM	Unit Quantity	Resource Quantity	Total
<b>Labor</b>					
Loco driver	73.91	\$/hr	164.00	1.00	12,121
TBM operator	96.81	\$/hr	164.00	1.00	15,877
Tunnel electrician	72.73	\$/hr	164.00	1.00	11,928
Shaft top	73.73	\$/hr	164.00	1.00	12,092
Crane operator	96.81	\$/hr	164.00	1.00	15,877
Surface laborer	30.00	\$/hr	164.00	1.00	4,920
Tunnel mechanic	89.97	\$/hr	164.00	1.00	14,755
				<b>7.00</b>	<b>\$87,569</b>
<b>Equipment</b>					
Shaft crane	5,000.00	\$/wk	20.56	1.00	102,800
					<b>\$102,800</b>
<b>Consumables</b>					
Fuel	3.75	\$/gal	60.00	1.00	225
					<b>\$225</b>

**Total Estimated Cost:** \$190,594



**Detailed Cost Estimate Report**

**Project:** Winnetka Stormwater Tunnel  
**Estimate Description:** Tunnel Clean up  
**Tunnel Name:** Willow Road Stadi  
**Construction Activity:** Tunnel Clean Up  
**Tunnel Technique:** Open face TBM - Concrete pipe  
**Estimate Definition ID:** 7072

**Project Number:** 358815  
**Parent Estimate ID:** 6789  
**Project Phase:** 30%  
**Geology Type:** Firm soils  
**Estimate Date:** June 22, 2015  
**Tunnel Characteristics ID:** 2964

**Tunnel Characteristics**

**Tunnel Length:** 8,500 ft  
**Finished Diameter:** 8 ft (Circular Tunnels)  
**Excavated Cross Section:** 0 ft2 (Non-circular Tunnels)  
**Excavated Perimeter:** 0 ft (Non-circular Tunnels)

**Productivity Cycle**

**Section Length** 100 Feet  
**Vent Line Removal Time** 46 Minutes  
**Track Removal Time** 300 Minutes  
**Temp Lighting Removal Time** 0 Minutes  
**Clean Up Time** 53 Minutes  
**Total Cycle Time** 399 Minutes

**Reduction Factors**

**Learning Curve Efficiency:** 100 %  
**Back Up Efficiency:** 100 %  
**Learning Curve Duration:** 1 Weeks

**Shift Details**

**Shift Arrangement:** 1 - 10 hour shifts x 5 days per week  
**Avg. Advance per Shift:** 149.06 Feet  
**Avg. Advance per Week:** 752 Feet  
**Total number of hours:** 570

**Clean Up Productivity Data**

	<u>Average Advance</u>	<u>Drive Length</u>	<u>Drive Duration</u>		
<b>Learning Curve Portion:</b>	150.4 ft/day	752 Feet	5 Shifts	5 Days	1.00 Weeks
<b>Experienced Drive Portion:</b>	150.4 ft/day	7,748 Feet	52 Shifts	52 Days	10.31 Weeks
<b>Total:</b>	150.4 ft/day	8,500 Feet	57 Shifts	57 Days	11.31 Weeks

<b>Resource Name</b>	<b>Unit Rate</b>	<b>UOM</b>	<b>Unit Quantity</b>	<b>Resource Quantity</b>	<b>Total</b>
<b>Labor</b>					
Laborer	77.75	\$/hr	570.00	3.00	132,953
Foreman	78.77	\$/hr	570.00	1.00	44,899
Crane operator	101.28	\$/hr	570.00	1.00	57,730
Loader operator	93.81	\$/hr	570.00	1.00	53,472
				<b>6.00</b>	<b>\$289,053</b>
<b>Equipment</b>					
150T Crane	5,000.00	\$/wk	11.31	1.00	56,550

Resource Name	Unit Rate	UOM	Unit Quantity	Resource Quantity	Total
Compressors	820.00	\$/wk	11.31	1.00	9,274
Generators	1,860.00	\$/wk	11.31	1.00	21,037
Loaders	2,200.00	\$/wk	11.31	1.00	24,882
Other surface plant	500.00	\$/wk	11.31	1.00	5,655
					\$117,398

**Consumables**

Electrical power	0.18	\$/kwh	570.00	100.00	10,260
Fuel	3.75	\$/gal	2.00	50.00	375
					\$10,635

<b>Total Estimated Cost:</b>	\$417,086
<b>Total Estimated Cost per Foot:</b>	\$49
<b>Total Estimated Cost per Week:</b>	\$36,894
<b>Total Estimated Cost per Shift:</b>	\$7,314



## Detailed Cost Estimate Report

**Project:** Winnetka Stormwater Tunnel  
**Estimate Description:** TBM Remv.  
**Tunnel Name:** Willow Road Stadi  
**Construction Activity:** TBM Removal  
**Tunnel Technique:** Open face TBM - Concrete pipe  
**Estimate Definition ID:** 7071

**Project Number:** 358815  
**Parent Estimate ID:** 6788  
**Project Phase:** 30%  
**Geology Type:** Firm soils  
**Estimate Date:** June 22, 2015  
**Tunnel Characteristics ID:** 2964

### Tunnel Characteristics

**Finished Diameter:** 8 ft

### Activity Details

**Shift Arrangement** 1 - 10 hour shifts x 5 days per week

**Duration of Activity** 1 Weeks

**Total Number of Shifts** 5

Resource Name	Unit Rate	UOM	Unit Quantity	Resource Quantity	Total
<b>Labor</b>					
Laborer	77.75	\$/hr	50.00	2.00	7,775
Foreman	78.77	\$/hr	50.00	1.00	3,939
Tunnel electrician	90.65	\$/hr	50.00	1.00	4,533
Crane operator	101.28	\$/hr	50.00	1.00	5,064
Loader operator	93.81	\$/hr	50.00	1.00	4,691
				<b>6.00</b>	<b>\$26,001</b>
<b>Equipment</b>					
150T Crane	5,000.00	\$/wk	1.00	1.00	5,000
Shaft Crane Transportation	22,000.00	\$/Nr	1.00	1.00	22,000
Compressors	820.00	\$/wk	1.00	1.00	820
Generators	1,860.00	\$/wk	1.00	1.00	1,860
Loaders	2,000.00	\$/wk	1.00	1.00	2,000
Control Cable	700.00	\$/wk	1.00	1.00	700
Welding machine	500.00	\$/wk	1.00	1.00	500
					<b>\$32,880</b>
<b>Consumables</b>					
Electrical power	0.17	\$/kwh	50.00	200.00	1,700
Hydraulic oil	20.00	\$/gal	30.00	1.00	600
Other consumables	200.00	\$/wk	1.00	1.00	200
Fuel	3.75	\$/gal	500.00	1.00	1,875
					<b>\$4,375</b>
<b>Materials</b>					
Temporary materials	500.00	\$/wk	1.00	1.00	500
					<b>\$500</b>

**Total Estimated Cost:** \$63,756

Estimate Definition ID: 7071

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**Detailed Cost Estimate Report**

**Project:** Winnetka Stormwater Tunnel  
**Estimate Description:** Final Lining-Co.Pipe  
**Tunnel Name:** Willow Road Stadi  
**Construction Activity:** Final Lining  
**Tunnel Technique:** Open face TBM - Concrete pipe  
**Estimate Definition ID:** 7073

**Project Number:** 358815  
**Parent Estimate ID:** 6791  
**Project Phase:** 30%  
**Geology Type:** Firm soils  
**Estimate Date:** June 22, 2015  
**Tunnel Characteristics ID:** 2964

**Tunnel Characteristics**

**Tunnel Length:** 8,500 ft  
**Finished Diameter:** 8 ft (Circular Tunnels)  
**Excavated Cross Section:** 0 ft<sup>2</sup> (Non-circular Tunnels)  
**Excavated Perimeter:** 0 ft (Non-circular Tunnels)  
**Initial Support Type:** Ribs & timber lagging  
**Initial Support Thickness:** 0.25 ft or 3.0 inches  
**Final Lining Thickness:** 0.75 ft or 9.0 inches  
**Grout Thickness:** 0.75 ft or 9.0 inches

**Theoretical Excavation Volumes**

**Total Neat Excavation:** 32,755 Cubic Yards  
**Initial Lining Volume:** 2,786 Cubic Yards  
**Final Lining Volume:** 6,501 Cubic Yards  
**Grout Volume:** 7,616 Cubic Yards

**Normal Forming Cycle**

**Form Length:** 8 Feet  
**Install Form Time:** 20 Minutes  
**Place Concrete Time:** 30 Minutes  
**Strip Form Time:** 0 Minutes  
**Total Cycle Time:** 50 Minutes

**Reduction Factors**

**Learning Curve Efficiency:** 80 %  
**Back Up Efficiency:** 90 %  
**Learning Curve Duration:** 2 Weeks

**Shift Details**

**Shift Arrangement:** 2 - 10 hour shifts x 5 days per week  
**Avg. Advance per Shift:** 82.62 Feet  
**Avg. Advance per Week:** 830 Feet  
**Total number of hours:** 1,029

**Lining Productivity Data**

	<u>Average Advance</u>	<u>Length</u>	<u>Duration</u>		
<b>Learning Curve Portion:</b>	138.2 ft/day	1,382 Feet	20 Shifts	10 Days	2.00 Weeks
<b>Experienced Drive Portion:</b>	172.8 ft/day	7,118 Feet	82 Shifts	41 Days	8.24 Weeks
<b>Total:</b>	166.0 ft/day	8,500 Feet	103 Shifts	51 Days	10.24 Weeks

<b>Resource Name</b>	<b>Unit Rate</b>	<b>UOM</b>	<b>Unit Quantity</b>	<b>Resource Quantity</b>	<b>Total</b>
<b>Labor</b>					
Tunnel laborer	77.75	\$/hr	1,029.00	3.00	240,014
Laborer Foreman	78.77	\$/hr	1,029.00	1.00	81,054
Shaft bottom	95.06	\$/hr	1,029.00	1.00	97,817
Pipefitter Journeyman	92.25	\$/hr	1,029.00	1.00	94,925

Estimate Definition ID: 7073

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Resource Name	Unit Rate	UOM	Unit Quantity	Resource Quantity	Total
Shaft top	77.75	\$/hr	1,029.00	1.00	80,005
Crane operator	101.28	\$/hr	1,029.00	1.00	104,217
Surface laborer	77.75	\$/hr	1,029.00	1.00	80,005
Grout plant operator	92.25	\$/hr	1,029.00	1.00	94,925
				<b>10.00</b>	\$872,962
<b>Equipment</b>					
Flat cars	500.00	\$/wk	10.24	2.00	10,240
Man hoists	300.00	\$/wk	10.24	1.00	3,072
Shaft crane	5,000.00	\$/wk	10.24	1.00	51,200
Grout Batch Plant	3,000.00	\$/wk	10.24	1.00	30,720
					\$95,232
<b>Materials</b>					
Grout	160.00	\$/yd3	6,501.00	0.75	780,120
Pipe Transportation	20,000.00	\$/Nr	1.00	1.00	20,000
Pipe & gasket	811.20	\$/ft	8,500.00	1.00	6,895,200
					\$7,695,320

<b>Total Estimated Cost:</b>	\$8,663,514
<b>Total Estimated Cost per Foot:</b>	\$1,019
<b>Total Estimated Cost per Week:</b>	\$846,215
<b>Total Estimated Cost per Shift:</b>	\$84,210



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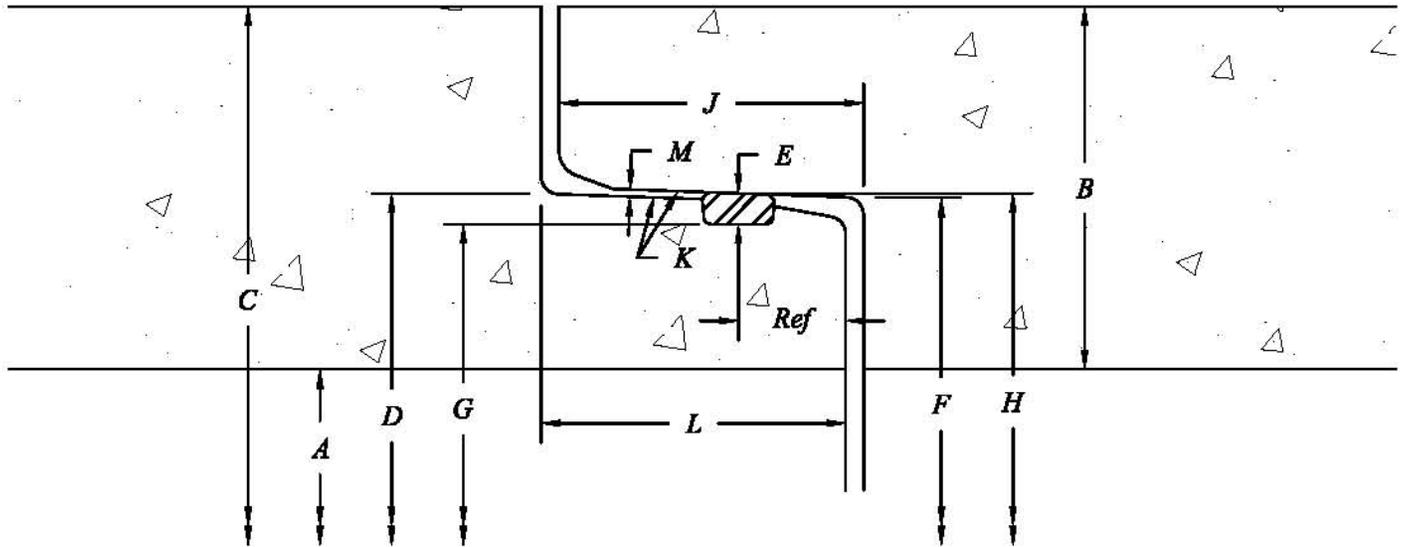
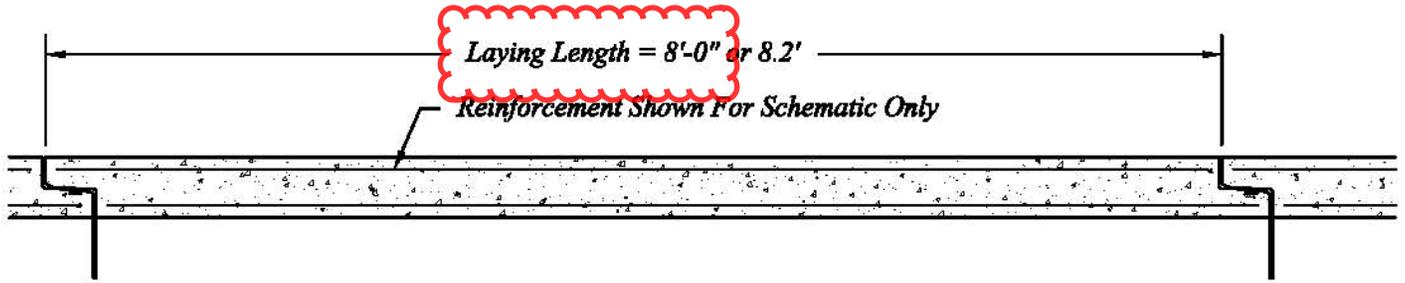
8/21/15

Quotation

**JOB:** Budget Unit Prices  
**Location:** Delivered from Romeoville or Franklin Park Locations  
**Due Date:** August 21, 2015

<u>Quantity</u>	<u>Description</u>	<u>UM</u>	<u>Price</u>	<u>Extension</u>
8	12" x 96" C4 G.J.	LFT	\$ 11.50	\$ 92.00
8	12" x 96" C5 G.J.	LFT	\$ 11.75	\$ 94.00
8	15" x 96" C4 G.J.	LFT	\$ 16.00	\$ 128.00
8	15" x 96" C5 G.J.	LFT	\$ 16.50	\$ 132.00
8	18" x 96" C4 G.J.	LFT	\$ 18.25	\$ 146.00
8	18" x 96" C5 G.J.	LFT	\$ 20.00	\$ 160.00
8	21" x 96" C4 G.J.	LFT	\$ 26.00	\$ 208.00
8	21" x 96" C5 G.J.	LFT	\$ 27.75	\$ 222.00
8	24" x 96" C4 G.J.	LFT	\$ 30.50	\$ 244.00
8	24" x 96" C5 G.J.	LFT	\$ 32.50	\$ 260.00
8	27" x 96" C4 G.J.	LFT	\$ 34.50	\$ 276.00
8	27" x 96" C5 G.J.	LFT	\$ 38.25	\$ 306.00
8	30" x 96" C4 G.J.	LFT	\$ 41.75	\$ 334.00
8	30" x 96" C5 G.J.	LFT	\$ 46.25	\$ 370.00
8	36" x 96" C4 G.J.	LFT	\$ 52.75	\$ 422.00
8	36" x 96" C5 G.J.	LFT	\$ 61.75	\$ 494.00
8	42" x 96" C4 O.R.	LFT	\$ 73.75	\$ 590.00
8	42" x 96" C5 O.R.	LFT	\$ 87.00	\$ 696.00
8	48" x 96" C4 O.R.	LFT	\$ 90.50	\$ 724.00
8	48" x 96" C5 O.R.	LFT	\$ 107.50	\$ 860.00
8	54" x 96" C4 O.R.	LFT	\$ 126.00	\$ 1,008.00
8	54" x 96" C5 O.R.	LFT	\$ 147.00	\$ 1,176.00
8	60" x 96" C4 O.R.	LFT	\$ 147.50	\$ 1,180.00
8	60" x 96" C5 O.R.	LFT	\$ 174.50	\$ 1,396.00
8	66" x 96" C4 O.R.	LFT	\$ 164.00	\$ 1,312.00
8	66" x 96" C5 O.R.	LFT	\$ 200.00	\$ 1,600.00
8	72" x 96" C4 O.R.	LFT	\$ 200.00	\$ 1,600.00
8	72" x 96" C5 O.R.	LFT	\$ 250.00	\$ 2,000.00
8	78" x 96" C4 O.R.	LFT	\$ 227.00	\$ 1,816.00
8	78" x 96" C5 O.R.	LFT	\$ 277.00	\$ 2,216.00
8	84" x 96" C4 O.R.	LFT	\$ 290.00	\$ 2,320.00
8	84" x 96" C5 O.R.	LFT	\$ 330.00	\$ 2,640.00
8	90" x 96" C4 O.R.	LFT	\$ 450.00	\$ 3,600.00
8	90" x 96" C5 O.R.	LFT	\$ 550.00	\$ 4,400.00
8	96" x 96" C4 O.R.	LFT	\$ 550.00	\$ 4,400.00
8	96" x 96" C5 O.R.	LFT	\$ 700.00	\$ 5,600.00
8	102" x 96" C4 O.R.	LFT	\$ 850.00	\$ 6,800.00
8	102" x 96" C5 O.R.	LFT	\$ 1,050.00	\$ 8,400.00
8	108" x 96" C4 O.R.	LFT	\$ 950.00	\$ 7,600.00
8	108" x 96" C5 O.R.	LFT	\$ 1,200.00	\$ 9,600.00

Joint Lubricant (25 lb. Pails) - \$50.00 Each • Mastic (5 Gallon Pails) - \$60.00 Each



A	Pipe Diameter (In)	90	96	102	108	114	120	132	144
	Pipe Diameter (mm)	2250	2400	2550	2700	2850	3000	3300	3600
B	Wall Thickness	9.25	9.00	10.25	10.00	9.50	10.00	11.00	12.00
C	Outside Diameter	108.50	114.00	122.50	128.00	133.00	140.00	154.00	168.00
D	Spigot Joint Outside Diameter	97.599	103.983	110.632	116.974	122.890	128.890	141.641	155.228
E	O-Ring Annular Space	0.562	0.562	0.602	0.622	0.622	0.622	0.622	0.632
F	Bell Joint Inside Diameter	97.500	103.875	110.470	116.875	122.721	128.721	141.471	154.625
G	Diameter @ Back Of O-Ring	96.510	102.898	109.402	115.762	121.630	127.630	140.380	153.893
H	Diameter @ Front Of O-Ring	97.635	104.022	110.606	117.006	122.874	128.874	141.624	155.157
J	Bell Depth	5.00	5.00	5.00	5.00	6.00	6.00	6.00	8.25
K	Joint Taper	2°	2°	2°	2°	2°	2°	2°	2°
L	Spigot Depth	5.00	4.875	4.875	4.875	5.813	5.813	5.813	8.25
M	Joint Annular Space	0.1250	0.1250	0.0938	0.1250	0.1250	0.1250	0.1250	0.1560
Ref		1.938	2.000	1.938	1.813	2.000	2.188	2.000	3.000
	Approximate Weight / L.F.	3004#	3093#	3765#	3862#	3839#	4254#	5148#	6126#

All Pipe Is Manufactured And Tested In Accordance With Current ASTM C-14, ASTM C-76 Or ASTM C-655 Specifications As Required.

All O-Rings Meet ASTM C-443 Requirements.

All O-Ring Materials Meet ASTM C-361 Requirements.

**90"Ø to 144"Ø Precast Concrete Pipe w/O-Ring Joint Detail**



**NORTHERN CONCRETE PIPE**

401 Kelton Street  
Bay City, MI 48706  
1 800 222 9918

5281 Lansing Road  
Charlotte, MI 48813  
1 800 874 9701

Date 31 Jan 08  
Drawn By BmG  
Scale NTS  
**01.04**



**Detailed Cost Estimate Report**

**Project:** Winnetka Stormwater Tunnel  
**Estimate Description:** STADI-R.Shaft-Outfal  
**Tunnel Name:** Outfall-R.Shaft  
**Construction Activity:** Removal Shaft  
**Estimate Definition ID:** 7075

**Project Number:** 358815  
**Parent Estimate ID:** 6793  
**Project Phase:** 30%  
**Geology Type:** Not Applicable  
**Estimate Date:** June 24, 2015  
**Tunnel Characteristics ID:** 2966

**GENERAL**

Shaft Excavation Area **4133 ft2**  
 Shaft Finished Area **2,822.00 ft2**  
 Shaft Depth **10.00 ft**  
 Shaft Perimeter **324 ft**  
 Excavation Quantity **1,531 Cubic Yards**

**PRE-SUPPORT**

Shaft excavation support type **Sheet piles**  
 Number piles/wall **156 (1 for slurry wall)**  
 Pile Depth **31 ft**  
 Excavation Support Advance Rate **0.12 ft/hr**

**FINAL SUPPORT**

Shaft final lining type **Mass concrete**  
 Final liner installation rate **0.2 ft/hr**

**PRE-TREATMENT**

Treatment type **None**  
 Treated area **0 ft2**  
 Treated depth **0 ft**  
 Treatment rate **0 yd3/hr**

**EXCAVATE/PRIMARY SUPPORT**

Shaft excavation type **Excavation + lagging**  
 Shaft Advance Rate **200.00 yd3/day**  
 Excavation primary support advance rate **150 yd2/hr**

**SHIFT DETAILS**

Shift Arrangement **1 - 10 hour shifts x 5 days per week**  
 Avg. Advance per Shift **0.23 Feet**  
 Avg. Advance per Week **1.17 Feet**  
 Total number of hours **429**

**SHAFT CONSTRUCTION DATA**

	<u>Average Advance</u>	<u>Quantity</u>	<u>Unit</u>		<u>Excavation Duration</u>		
<b>Pre-treatment</b>	0.0 yd3/day	0	yd3	0.0 Shifts	0.0 Days	0.00 Weeks	
<b>Pre-support</b>	1.2 ft/day	31	ft	26.3 Shifts	26.3 Days	5.27 Weeks	
<b>Excavation</b>	200.0 yd3/day	1,531	yd3	8.2 Shifts	8.2 Days	1.63 Weeks	
<b>Primary support</b>	124.1 yd2/day	360	yd2	2.9 Shifts	2.9 Days	0.58 Weeks	
<b>Final support</b>	1.8 ft/day	10	ft	5.5 Shifts	5.5 Days	1.10 Weeks	
<b>Total:</b>				<b>43 Shifts</b>	<b>42.9 Days</b>	<b>8.58 Weeks</b>	

Labor	Unit Rate	<u>PRE- TREATMENT</u>			<u>PRE-SUPPORT</u>			<u>EXCAVATE / PRIMARY SUPPORT</u>			<u>FINAL SUPPORT</u>			Grand Total
		UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	
Shifter	\$78.77 \$/hr	0	0	\$0	263	1	\$20,717	111	1	\$8,743	55	1	\$4,332	<b>\$33,792</b>
Tunnel miner	\$78.77 \$/hr	0	0	\$0	0	0	\$0	111	1	\$8,743	55	1	\$4,332	<b>\$13,076</b>
Laborer	\$77.75 \$/hr	0	0	\$0	263	2	\$40,897	111	1	\$8,630	55	2	\$8,553	<b>\$58,079</b>
Concrete Pump Operator	\$95.81 \$/hr	0	0	\$0	0	0	\$0	0	0	\$0	55	1	\$5,270	<b>\$5,270</b>
Welder	\$102.22 \$/hr	0	0	\$0	263	1	\$26,884	111	1	\$11,346	55	1	\$5,622	<b>\$43,852</b>
Crane operator	\$101.28 \$/hr	0	0	\$0	263	1	\$26,637	111	1	\$11,242	55	1	\$5,570	<b>\$43,449</b>
Loader operator	\$93.81 \$/hr	0	0	\$0	263	1	\$24,672	111	1	\$10,413	55	1	\$5,160	<b>\$40,244</b>
Excavator Operator	\$93.81 \$/hr	0	0	\$0	263	1	\$24,672	0	0	\$0	0	0	\$0	<b>\$24,672</b>
Tunnel mechanic	\$88.52 \$/hr	0	0	\$0	263	1	\$23,281	111	0	\$0	0	0	\$0	<b>\$23,281</b>
Police	\$50.00 \$/hr	0	0	\$0	263	1	\$13,150	0	0	\$0	0	0	\$0	<b>\$13,150</b>
				<b>\$0</b>			<b>\$200,908</b>			<b>\$59,119</b>			<b>\$38,839</b>	<b>\$298,866</b>

Equipment	Unit Rate	<u>PRE- TREATMENT</u>			<u>PRE-SUPPORT</u>			<u>EXCAVATE / PRIMARY SUPPORT</u>			<u>FINAL SUPPORT</u>			Grand Total
		UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	
150T Crane	\$5,000.00 \$/wk	0	0	\$0	5.27	0	\$0	2.21	1	\$11,050	1.1	1	\$5,500	<b>\$16,550</b>
Small tools	##### \$/Nr	0	0	\$0	0	0	\$0	1	0.1	\$29,887	0	0	\$0	<b>\$29,887</b>
Shaft crane	\$65.63 \$/hr	0	0	\$0	263	1	\$17,261	111	0	\$0	0	0	\$0	<b>\$17,261</b>
Compressors	\$820.00 \$/wk	0	0	\$0	5.27	1	\$4,321	2.21	1	\$1,812	1.1	0	\$0	<b>\$6,134</b>
Loaders	\$2,200.00 \$/wk	0	0	\$0	5.27	1	\$11,594	2.21	1	\$4,862	0	0	\$0	<b>\$16,456</b>
Loader/backhoe	\$3,500.00 \$/wk	0	0	\$0	5.27	1	\$18,445	2.21	0	\$0	0	0	\$0	<b>\$18,445</b>
Concrete pumps	\$4,000.00 \$/wk	0	0	\$0	5.27	1	\$21,080	2.21	0	\$0	1.1	1	\$4,400	<b>\$25,480</b>
Auger crane	\$7,000.00 \$/wk	0	0	\$0	5.27	1	\$36,890	0	0	\$0	0	0	\$0	<b>\$36,890</b>
Excavator	\$4,000.00 \$/wk	0	0	\$0	0	0	\$0	2.21	1	\$8,840	0	0	\$0	<b>\$8,840</b>
Muck bucket	\$700.00 \$/wk	0	0	\$0	5.27	0	\$0	2.21	1	\$1,547	0	0	\$0	<b>\$1,547</b>
Pumps	\$300.00 \$/wk	0	0	\$0	5.27	0	\$0	2.21	1	\$663	1.1	0	\$0	<b>\$663</b>
Welding machine	\$500.00 \$/wk	0	0	\$0	5.27	1	\$2,635	2.21	1	\$1,105	0	0	\$0	<b>\$3,740</b>
Boom Truck	\$2,500.00 \$/wk	0	0	\$0	5.27	1	\$13,175	2.21	0	\$0	0	0	\$0	<b>\$13,175</b>
				<b>\$0</b>			<b>\$125,401</b>			<b>\$59,766</b>			<b>\$9,900</b>	<b>\$195,067</b>

Estimate Definition ID: 7075

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Page 2 of 3

Estimated by: \_\_\_\_\_

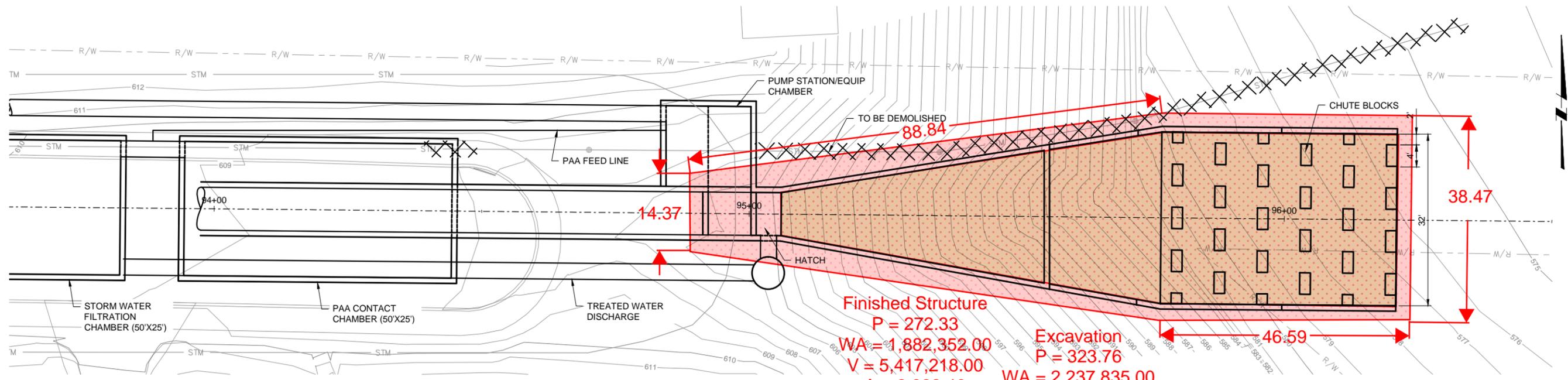
Checked by: \_\_\_\_\_

<b>Consumables</b>	Unit Rate	<u>PRE- TREATMENT</u>			<u>PRE-SUPPORT</u>			<u>EXCAVATE / PRIMARY SUPPORT</u>			<u>FINAL SUPPORT</u>			Grand Total
		UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	
Electrical power	\$0.18 \$/kwh	0	0	\$0	263	100	\$4,734	111	200	\$3,996	0	0	\$0	<b>\$8,730</b>
Hydraulic oil	\$20.00 \$/gal	0	0	\$0	5	50	\$5,000	2	100	\$4,000	0	0	\$0	<b>\$9,000</b>
Fuel	\$3.75 \$/gal	0	0	\$0	5	500	\$9,375	2	1000	\$7,500	0	0	\$0	<b>\$16,875</b>
				<b>\$0</b>			<b>\$19,109</b>			<b>\$15,496</b>			<b>\$0</b>	<b>\$34,605</b>

<b>Materials</b>	Unit Rate	<u>PRE- TREATMENT</u>			<u>PRE-SUPPORT</u>			<u>EXCAVATE / PRIMARY SUPPORT</u>			<u>FINAL SUPPORT</u>			Grand Total
		UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	
Walers & struts	\$1.50 \$/lb	0	0	\$0	23100	0	\$0	236000	1	\$354,000	0	0	\$0	<b>\$354,000</b>
Concrete Walls	\$250.00 \$/yd3	0	0	\$0	0	0	\$0	360	0	\$0	360	1	\$90,000	<b>\$90,000</b>
Cellular-Grout	\$120.00 \$/yd3	0	0	\$0	0	0	\$0	0	0	\$0	740	1.05	\$93,240	<b>\$93,240</b>
Sheet piles	\$40.00 \$/ft2	0	0	\$0	10044	1	\$401,760	0	0	\$0	0	0	\$0	<b>\$401,760</b>
				<b>\$0</b>			<b>\$401,760</b>			<b>\$354,000</b>			<b>\$183,240</b>	<b>\$939,000</b>

<b>Subcontracts</b>	Unit Rate	<u>PRE- TREATMENT</u>			<u>PRE-SUPPORT</u>			<u>EXCAVATE / PRIMARY SUPPORT</u>			<u>FINAL SUPPORT</u>			Grand Total
		UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	UQ	RQ	Total	
Shaft Muck disposal	\$20.00 \$/yd3	0	0	\$0	4750	0	\$0	1530	1.6	\$48,960	0	0	\$0	<b>\$48,960</b>
Bottom Slab	\$120.00 \$/yd3	0	0	\$0	0	0	\$0	306	1	\$36,720	0	0	\$0	<b>\$36,720</b>
Traffic Control	\$10,000.00 \$/Nr	0	0	\$0	0	0	\$0	1	1	\$10,000	0	0	\$0	<b>\$10,000</b>
				<b>\$0</b>			<b>\$0</b>			<b>\$95,680</b>			<b>\$0</b>	<b>\$95,680</b>

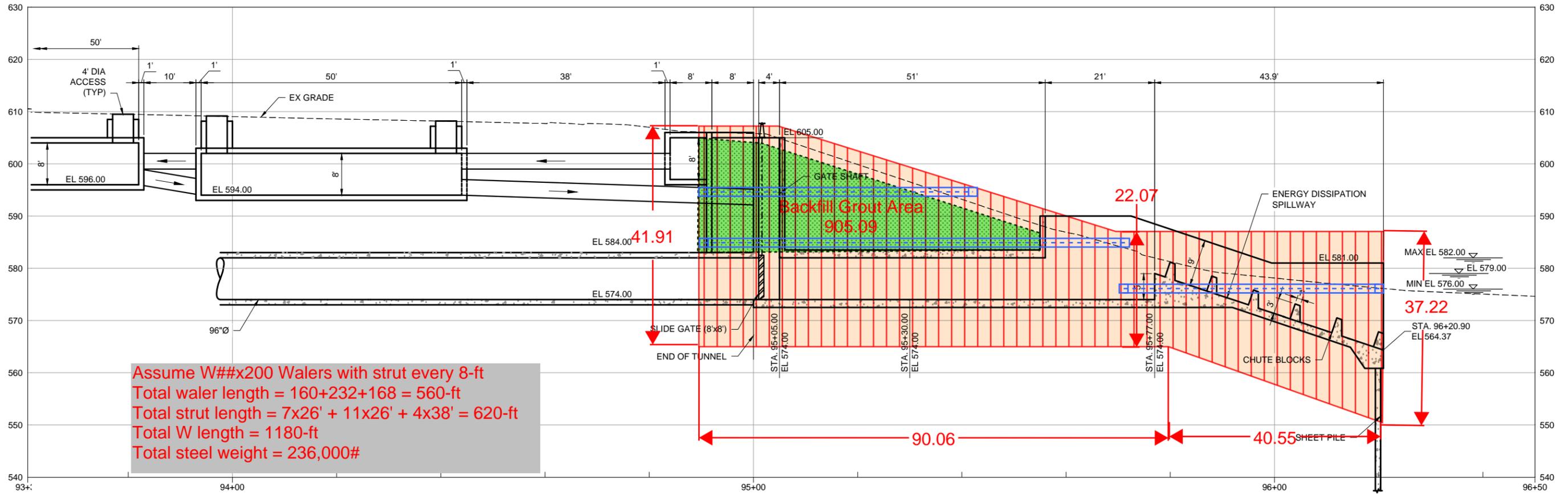
<b>Total Pre-Treatment Cost:</b>	\$0
<b>Total Pre-Support Cost:</b>	\$747,178
<b>Total Excavate / Primary Support Cost:</b>	\$584,060
<b>Total Final Support Cost:</b>	\$231,979
<b>Total Estimated Cost:</b>	<b>\$1,563,218</b>
<b>Total Estimated Cost per Foot:</b>	\$156,322
<b>Total Estimated Cost per Week:</b>	\$182,248
<b>Total Estimated Cost per Shift:</b>	\$36,450



**Finished Structure**  
 P = 272.33  
 WA = 1,882,352.00  
 V = 5,417,218.00  
 A = 2,822.46

**Excavation**  
 P = 323.76  
 WA = 2,237,835.00  
 V = 7,933,183.00  
 A = 4,133.32

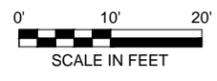
PLAN



Assume W##x200 Walers with strut every 8-ft  
 Total waler length = 160+232+168 = 560-ft  
 Total strut length = 7x26' + 11x26' + 4x38' = 620-ft  
 Total W length = 1180-ft  
 Total steel weight = 236,000#

PROFILE

**NOTICE: THIS STRUCTURE HAS NOT BEEN DESIGNED. FOR THE PURPOSES OF ESTIMATING, GENERAL ASSUMPTIONS HAVE BEEN MADE TO PROVIDE A BASIS FOR COSTING**



FILE: C:\Users\stark\Documents\Projects\WILLOW\FIN\WILLOW.dwg  
 PRINT DATE: Mar 26, 2015 10:01 am  
 USER: stark

REV	DATE	BY	DESCRIPTION

SCALE	1"=10'
WARNING	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE
DESIGNED	W. MOORE
DRAWN	V. BHOSALE
CHECKED	

PRELIMINARY DESIGN PHASE - MARCH 2015  
 NOT FOR CONSTRUCTION  
 This document is an interim document and not suitable for construction. As an interim document, it may contain data that is potentially inaccurate or incomplete and is not to be relied upon without the express written consent of the preparer.



**VILLAGE OF WINNETKA**  
 510 GREEN BAY ROAD  
 WINNETKA, ILLINOIS 60093

WILLOW ROAD STADI PROJECT - CONTRACT XXXX  
 CIVIL  
 LAKE MICHIGAN OUTFALL  
 PLAN AND SECTION  
**Agenda Packet P. 137**

SHEET  
 C-10  
 10504271



**Detailed Cost Estimate Report**

<b>Project:</b>	Winnetka Stormwater Tunnel	<b>Project Number:</b>	358815
<b>Estimate Description:</b>	Indirect Costs-STADI	<b>Parent Estimate ID:</b>	6794
<b>Tunnel Name:</b>	Willow Road Stadi	<b>Project Phase:</b>	30%
<b>Construction Activity:</b>	Indirect Costs	<b>Geology Type:</b>	Firm soils
<b>Tunnel Technique:</b>	Open face TBM - Concrete pipe	<b>Estimate Date:</b>	June 25, 2015
<b>Estimate Definition ID:</b>	7077	<b>Tunnel Characteristics ID:</b>	2964

Resource Name	Unit Rate	UOM	Unit Quantity	Resource Quantity	Total
<b>Supervision</b>					
Project manager	17,000.00	\$/month	24.00	1.00	408,000
Project superintendent	14,000.00	\$/month	24.00	1.00	336,000
Safety supervisor	13,000.00	\$/month	24.00	0.50	156,000
					\$900,000
<b>Engineering</b>					
Project engineer	13,000.00	\$/month	24.00	1.00	312,000
Office engineer	10,000.00	\$/month	24.00	1.00	240,000
Cost engineer	11,000.00	\$/month	24.00	0.50	132,000
Surveyor	10,500.00	\$/month	24.00	0.50	126,000
Rodman	6,000.00	\$/month	24.00	0.50	72,000
					\$882,000
<b>Office and Clerical</b>					
Secretary	5,000.00	\$/month	24.00	1.00	120,000
					\$120,000
<b>Warehouse and Security</b>					
Drivers	5,000.00	\$/month	24.00	1.00	120,000
Equipment operators	7,000.00	\$/month	24.00	0.50	84,000
					\$204,000
<b>Project Temporary Buildings</b>					
Temp.Bldgs.(Contractor&Engineer)	5,000.00	\$/month	24.00	2.00	240,000
Building services	1,500.00	\$/month	24.00	2.00	72,000
Fuel	500.00	\$/month	24.00	2.00	24,000
Erect and dismantel buildings	10,000.00	\$/Nr	1.00	2.00	20,000
Service installation and removal	10,000.00	\$/Nr	1.00	2.00	20,000
					\$376,000
<b>Vehicles</b>					
Pick-ups	1,500.00	\$/month	24.00	2.00	72,000
Boom truck	2,500.00	\$/month	24.00	1.00	60,000
Yard equipment	2,000.00	\$/month	24.00	1.00	48,000
					\$180,000

Resource Name	Unit Rate	UOM	Unit Quantity	Resource Quantity	Total
<b>General Supplies</b>					
Office equipment	4,000.00	\$/month	24.00	1.00	96,000
Office supplies	500.00	\$/month	24.00	1.00	12,000
Safety and medical supplies	500.00	\$/month	24.00	1.00	12,000
Warehouse supplies	2,000.00	\$/month	24.00	1.00	48,000
					\$168,000
<b>Head Office Support</b>					
Head office support	10,000,000.00	\$/Nr	1.00	0.01	100,000
					\$100,000
<b>Total Estimated Cost:</b>					\$2,930,000



**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**VILLAGE OF WINNETKA, ILLINOIS  
 WILLOW ROAD STADI PROJECT - COST SUMMARY**

		MWH 2015 30% PDR EOPCC	JUNE 2015 INDEPENDENT OPCC	CHANGE
<b>TUNNEL</b>				
<b>1.00</b>	<b>WILLOW ROAD TUNNEL &amp; APPURTENANCES</b>	\$ 28,194,980.00	\$ 37,297,460.00	\$ 9,102,480.00
<b>SITE WORK</b>				
<b>2.00</b>	<b>WOODLAND AVENUE - STA 200+00 to 227+13</b>	\$ 2,809,330.00	\$ 3,879,000.00	\$ 1,069,670.00
<b>3.00</b>	<b>OAK STREET - STA 300+60 to 303+74</b>	\$ 329,190.00	\$ 329,000.00	\$ (190.00)
<b>4.00</b>	<b>POPLAR STREET - STA 311+08 to 323+62</b>	\$ 1,491,500.00	\$ 1,555,000.00	\$ 63,500.00
<b>5.00</b>	<b>ASH STREET - STA 340+70 to 319+72</b>	\$ 458,340.00	\$ 404,000.00	\$ (54,340.00)
<b>6.00</b>	<b>BIRCH STREET - STA 400+91 to 422+90</b>	\$ 2,865,290.00	\$ 3,709,000.00	\$ 843,710.00
<b>7.00</b>	<b>WESTMOORE ROAD - STA 500+76 to 503+10</b>	\$ 233,630.00	\$ 337,000.00	\$ 103,370.00
<b>8.00</b>	<b>LOCUST STREET - STA 510+49 to 549+45</b>	\$ 3,461,820.00	\$ 4,755,000.00	\$ 1,293,180.00
<b>9.00</b>	<b>WINNETKA ROAD - STA 231+60 to 237+50</b>	\$ 713,650.00	\$ 636,000.00	\$ (77,650.00)
<b>10.00</b>	<b>BERKELEY AVENUE - STA 601+00 to 613+00</b>	\$ 3,454,790.00	\$ 2,811,000.00	\$ (643,790.00)
<b>11.00</b>	<b>ASH STREET - STA 620+50 to 627+29</b>	\$ 580,830.00	\$ 851,000.00	\$ 270,170.00
<b>12.00</b>	<b>PINE STREET - STA 700+72 to 703+33</b>	\$ 362,380.00	\$ 502,000.00	\$ 139,620.00
<b>13.00</b>	<b>HIBBARD ROAD - STA 710+30 to 712+55</b>	\$ 1,080,960.00	\$ 1,318,000.00	\$ 237,040.00
	<b>SUBTOTAL SITEWORK</b>	\$ 17,841,710.00	\$ 21,086,000.00	\$ 3,244,290.00
<b>14.00</b>	<b>SITE WORK CONTINGENCY (20% - 20%)</b>	\$ 3,568,000.00	\$ 4,217,000.00	\$ 649,000.00
<b>15.00</b>	<b>TUNNEL CONTINGENCY (10% - 30%)</b>	\$ 2,819,000.00	\$ 11,189,000.00	\$ 8,370,000.00
	<b>TOTAL</b>	\$ 52,423,690.00	\$ 73,789,460.00	\$ 21,365,770.00

*This Preliminary Cost Estimate is based on drawings prepared by Montgomery Watson Harza Global titled "Willow Road STADI Project - Contract XXXX - Preliminary Design Submittal" dated April 2015 with no noted revisions. Since V3 Companies of Illinois, Ltd. has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, this Opinion of Probable Construction Cost is made based on V3 Companies of Illinois' best judgment as an experienced and qualified professional contractor, familiar with the Construction industry; however, V3 Companies of Illinois cannot and does not guarantee that proposals, bids or actual Construction Costs will not vary from Opinions of Probable Construction Cost prepared by V3.*



**WILLOW ROAD TUNNEL & APPURTENANCES**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093

**Phone:** 847-501-6000

**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois

**Date of Plans:** April 2015

**Revision Date:** None Noted

**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 37,297,460.00**

1.00	MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1.10	Pre-construction Survey	1.000	AL	\$ 195,904.00	\$ 195,904.00
1.11	Traffic Control	1.000	AL	\$ 500,011.00	\$ 500,011.00
1.12	Permits & Plans	0.000	LS	"NIC"	NIC
1.13	Erosion Protection	1.000	LS	\$ 18,590.00	\$ 18,590.00
1.14	Mobilization	5.00%		\$ 35,521,390.00	\$ 1,776,069.50
1.15	Site Work	1.000	LS	\$ 456,658.00	\$ 456,658.00
1.16	Control of Water	0.000	LS	NIC	NIC
1.17	Instrumentation	1.000	AL	\$ 129,153.00	\$ 129,153.00
1.18	Demobilization	1.000	LS	\$ 158,245.00	\$ 158,245.00
1.19	Post-construction Survey	1.000	AL	\$ 26,121.00	\$ 26,121.00
<b>SUBTOTAL</b>					<b>\$ 3,260,750.00</b>

2.00	CONSTRUCTION SHAFTS	QUANTITY	UNIT	UNIT PRICE	TOTAL
2.10	Willow Road Construction Shaft	1.000	LS	\$ 604,774.00	\$ 604,774.00
2.11	MH-101, TBM Receiving Shaft	42.000	VF	\$ 1,243.84	\$ 52,241.28
2.12	Intermediate Shafts	0.000	EA	INC	INC
2.13	JC-1, Willow Road & Berkeley	43.000	VF	INC	INC
2.14	PCC Curb Removal (10%)	45.000	VF	\$ 6,320.17	\$ 284,407.65
2.15	DS-2, Willow Road & Locust	55.000	VF	\$ 6,320.17	\$ 347,609.35
2.16	DS-3, Willow Road & Birch	42.000	VF	\$ 6,320.17	\$ 265,447.14
2.17	DS-4, Willow Road & Poplar	40.000	VF	\$ 6,320.17	\$ 252,806.80
2.18	DS-5, Willow Road & Woodland	1.000	LS	INC	INC
2.19	Shaft Restoration	1.000	LS	INC	INC
<b>SUBTOTAL</b>					<b>\$ 1,807,290.00</b>

3.00	96" DIAMETER TUNNEL	QUANTITY	UNIT	UNIT PRICE	TOTAL
3.10	96" Diameter Tunnel	8,500.000	LF	\$ 1,980.93	\$ 16,837,894.38
3.11	TBM Setup	1.000	LS	\$ 418,886.00	INC
3.12	TBM Tunneling	8,500.000	LF	\$ 1,838.28	INC
3.13	TBM Maintenance	1.000	LS	\$ 248,921.00	INC
3.14	Tunnel Cleanup	8,500.000	LF	\$ 64.09	INC
3.15	Retrieve TBM	1.000	LS	\$ 83,267.00	\$ 83,267.00
3.16	96" Diameter Pipe Jacked in Place	8,500.000	LF	\$ 1,331.14	\$ 11,314,730.04
<b>SUBTOTAL</b>					<b>\$ 28,235,951.00</b>

4.00	OUTFALL STRUCTURE	QUANTITY	UNIT	UNIT PRICE	TOTAL
4.10	Mobilization	1.000	LS	INC	INC
4.11	Energy Dissipation Toe Block Piling	1.000	LS	INC	INC
4.12	SOE Dissipation Structure	1.000	LS	\$ 2,041,606.00	\$ 2,041,606.00
4.13	SOE Outlet Pipe Structure	1.000	LS	INC	INC
4.14	Backfill Outlet Structure	1.000	LS	INC	INC
4.15	Outfall Structure Concrete	1.000	LS	INC	INC
4.16	Stormwater Treatment System	1.000	LS	\$ 1,551,033.00	\$ 1,551,033.00
4.17	Outfall Structure Mechanical/Electrical	1.000	LS	\$ 250,825.00	\$ 250,825.00
4.18	Outfall Structure Restoration	1.000	LS	\$ 150,003.00	\$ 150,003.00
<b>SUBTOTAL</b>					<b>\$ 3,993,468.00</b>



**WOODLAND AVENUE - STA 200+00 to 227+13**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 3,879,000.00**

1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 3,207,000.00	\$ 160,350.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 3,207,000.00	\$ 96,210.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 3,207,000.00	\$ 32,070.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 3,207,000.00	\$ 64,140.00
1.15 Site Sanitary Facilities	4.000	MTH	\$ 650.00	\$ 2,600.00
1.16 Contractors Field Office	4.000	MTH	\$ 3,000.00	\$ 12,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 3,207,000.00	\$ 112,245.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 3,207,000.00	\$ 192,420.00
<b>SUBTOTAL</b>				<b>\$ 672,035.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	130.000	LF	\$ 2.25	\$ 292.50
2.12 Demo PCC Roadway 8"	2,435.000	SY	\$ 8.95	\$ 21,793.25
2.13 Bituminous Surface Removal - 3"	2,435.000	SY	\$ 4.15	\$ 10,105.25
2.14 Aggregate Base Course Removal - 4"	265.000	CY	\$ 30.00	\$ 7,950.00
2.15 Aggregate Base Course Removal - 12"	795.000	CY	\$ 30.00	\$ 16,050.00
2.16 PCC Curb Removal	1,930.000	LF	\$ 3.25	\$ 6,272.50
<b>2.20 PIPE INSTALLATION</b>				
2.21 Install 72" RCP Storm Sewer (13' - 16' Dpth)	1,293.000	LF	\$ 550.00	\$ 711,150.00
2.22 Install 60" RCP Storm Sewer (13' - 16' Dpth)	1,330.000	LF	\$ 400.00	\$ 532,000.00
2.23 Storm Manhole Installation	6.000	EACH	\$ 25,000.00	\$ 150,000.00
2.24 Storm Junction Chamber 12' x 12' (14' Dpth)	1.000	EACH	\$ 80,000.00	\$ 80,000.00
2.25 Connect to Existing Deep Drop (+/- 16')	1.000	EACH	\$ 15,000.00	\$ 15,000.00
2.26 Trench Backfill (CA-7)	9,020.000	CY	\$ 54.65	\$ 492,943.00
2.27 Spoil Removal (CCDD)	13,690.000	CY	\$ 35.10	\$ 480,519.00
<b>SUBTOTAL</b>				<b>\$ 2,524,075.50</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	4,865.000	SY	\$ 14.25	\$ 69,326.25
3.12 Bituminous Binder Course (2.50")	680.000	TON	\$ 85.00	\$ 57,800.00
3.13 Bituminous Surface Course IL-19, N50 1.50"	405.000	TON	\$ 90.00	\$ 36,450.00
3.14 B6.12 Curb & Gutter	1,930.000	LF	\$ 20.00	\$ 38,600.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 23,000.00	\$ 23,000.00
3.22 Parkway Seed & Blanket	5,830.000	SY	\$ 10.00	\$ 58,300.00
<b>SUBTOTAL</b>				<b>\$ 283,476.25</b>



**WOODLAND AVENUE - STA 200+00 to 227+13**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

<b>SECTION TOTAL</b>	<b>\$ 3,879,000.00</b>
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<b>4.00</b>	<b>UTILITY RELOCATES / REPLACEMENTS</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>
<b>4.10</b>	<b>WATER MAIN &amp; SERVICES</b>				
4.11	Water Main Replacement (8" dia)	800.000	LF	\$ 150.00	\$ 120,000.00
4.12	Water Service Leads	23.000	EACH	\$ 2,500.00	\$ 57,500.00
4.13	6' Direct Bury Fire Hydrants W/ Aux Valve	2.000	EACH	\$ 5,000.00	\$ 10,000.00
4.14	8" Gate Valve in 48" Dia. Vault	6.000	EACH	\$ 4,500.00	\$ 27,000.00
4.15	Perpendicular Water Crossings	4.000	EACH	\$ 2,000.00	\$ 8,000.00
<b>4.20</b>	<b>STORM SEWER</b>				
4.21	Storm Sewer Replacement (18" dia)	325.000	LF	\$ 60.00	\$ 19,500.00
4.22	Storm Sewer Removal (36" dia)	1,415.000	LF	\$ 75.00	\$ 106,125.00
4.23	SS Manhole 4' Allowance	2.000	EACH	\$ 2,500.00	\$ 5,000.00
4.24	Catch/Inlet Leads	19.000	EACH	\$ 2,000.00	\$ 38,000.00
4.25	Perp. Sanitary & Storm Sewer Crossings	8	EACH	\$ 1,000.00	\$ 8,000.00
<b>SUBTOTAL</b>					<b>\$ 399,125.00</b>



**OAK STREET - STA 300+60 to 303+74**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093

**Phone:** 847-501-6000

**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois

**Date of Plans:** April 2015

**Revision Date:** None Noted

**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 329,000.00**

1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 267,000.00	\$ 13,350.00
1.12 Survey, Const. Layout & As-Built (3% Hard Costs)	3.00%	LSUM	\$ 267,000.00	\$ 8,010.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 267,000.00	\$ 2,670.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 267,000.00	\$ 5,340.00
1.15 Site Sanitary Facilities	2.000	MTH	\$ 650.00	\$ 1,300.00
1.16 Contractors Field Office	2.000	MTH	\$ 3,000.00	\$ 6,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 267,000.00	\$ 9,345.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 267,000.00	\$ 16,020.00
<b>SUBTOTAL</b>				<b>\$ 62,035.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	300.000	LF	\$ 2.25	\$ 675.00
2.12 Bituminous Surface Removal - 3"	405.000	SY	\$ 4.15	\$ 1,680.75
2.13 Aggregate Base Course Removal - 12"	135.000	CY	\$ 30.00	\$ 4,050.00
2.14 PCC Curb Removal	340.000	LF	\$ 3.25	\$ 1,105.00
2.15 PCC Driveway Apron Removal	220.000	SF	\$ 1.00	\$ 220.00
<b>2.20 PIPE INSTALLATION</b>				
2.22 Install 48" RCP Storm Sewer (8' - 12' Dpth)	288.000	LF	\$ 275.00	\$ 79,200.00
2.23 Storm Manhole Installation	1.000	EACH	\$ 10,000.00	\$ 10,000.00
2.24 High Cap Inlet Installation	2.000	EACH	\$ 6,500.00	\$ 13,000.00
2.25 Trench Backfill (CA-7)	633.000	CY	\$ 54.65	\$ 34,593.45
2.26 Spoil Removal (CCDD)	968.000	CY	\$ 35.10	\$ 33,976.80
<b>SUBTOTAL</b>				<b>\$ 178,501.00</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	405.000	SY	\$ 14.25	\$ 5,771.25
3.12 Bituminous Binder Course (2.50")	55.000	TON	\$ 85.00	\$ 4,675.00
3.13 Bituminous Surface Course IL-19, N50 1.50"	35.000	TON	\$ 90.00	\$ 3,150.00
3.14 B6.12 Curb & Gutter	340.000	LF	\$ 20.00	\$ 6,800.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 7,000.00	\$ 7,000.00
3.22 Parkway Seed & Blanket	640.000	SY	\$ 10.00	\$ 6,400.00
<b>SUBTOTAL</b>				<b>\$ 33,796.25</b>



OAK STREET - STA 300+60 to 303+74

Client: Steve Saunders
Village of Winnetka
510 Greenbay Road
Winnetka, Illinois 60093
Phone: 847-501-6000
Email:

Job Name: Willow Rd STADI
Winnetka, Illinois
Date of Plans: April 2015
Revision Date: None Noted
Date of Estimate: 6/26/2015

CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS

SECTION TOTAL \$ 329,000.00

Table with 6 columns: Item Code, Description, Quantity, Unit, Unit Price, Total. Rows include 4.00 UTILITY RELOCATES / REPLACEMENTS, 4.10 WATER MAIN & SERVICES, 4.11 Water Service Leads, 4.12 6' Direct Bury Fire Hydrants W/ Aux Valve, 4.13 8" Gate Valve in 48" Dia. Vault, 4.14 Perpendicular Water Crossings, 4.20 STORM SEWER, 4.21 Storm Sewer Replacement (24" dia), 4.23 SS Manhole 4' Allowance, 4.24 Catch/Inlet Leads, 4.25 Perp. Sanitary & Storm Sewer Crossings, and a SUBTOTAL row.



**POPLAR STREET - STA 311+08 to 323+62**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 1,555,000.00**

1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 1,281,000.00	\$ 64,050.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 1,281,000.00	\$ 38,430.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 1,281,000.00	\$ 12,810.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 1,281,000.00	\$ 25,620.00
1.15 Site Sanitary Facilities	3.000	MTH	\$ 650.00	\$ 1,950.00
1.16 Contractors Field Office	3.000	MTH	\$ 3,000.00	\$ 9,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 1,281,000.00	\$ 44,835.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 1,281,000.00	\$ 76,860.00
<b>SUBTOTAL</b>				<b>\$ 273,555.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	1,525.000	LF	\$ 2.25	\$ 3,431.25
2.12 Demo PCC Base Course 8"	1,665.000	SY	\$ 8.95	\$ 14,901.75
2.13 Bituminous Surface Removal - 3"	1,665.000	SY	\$ 4.15	\$ 6,909.75
2.14 Aggregate Base Course Removal - 4"	185.000	CY	\$ 30.00	\$ 5,550.00
2.15 PCC Curb Removal	1,240.000	LF	\$ 3.25	\$ 4,030.00
<b>2.20 PIPE INSTALLATION</b>				
2.21 Install 54" RCP Storm Sewer (13' - 15' Dpth)	1,306.000	LF	\$ 350.00	\$ 457,100.00
2.22 Storm Manhole Installation	3.000	EACH	\$ 15,000.00	\$ 45,000.00
2.23 Storm Junction Chamber 9' x 9' (12' Dpth)	1.000	EACH	\$ 60,000.00	\$ 60,000.00
2.24 Connect to Existing Deep Drop (+/- 16')	1.000	EACH	\$ 15,000.00	\$ 15,000.00
2.25 Trench Backfill (CA-7)	4,596.000	CY	\$ 54.65	\$ 251,171.40
2.26 Spoil Removal (CCDD)	6,395.000	CY	\$ 35.10	\$ 224,464.50
<b>SUBTOTAL</b>				<b>\$ 1,087,558.65</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	1,665.000	SY	\$ 14.25	\$ 23,726.25
3.12 Bituminous Binder Course (2.50")	235.000	TON	\$ 85.00	\$ 19,975.00
3.13 Bituminous Surface Course IL-19, N50 1.50"	140.000	TON	\$ 90.00	\$ 12,600.00
3.14 B6.12 Curb & Gutter	1,240.000	LF	\$ 20.00	\$ 24,800.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 1,000.00	\$ 1,000.00
3.22 Parkway Seed & Blanket	2,900.000	SY	\$ 10.00	\$ 29,000.00
<b>SUBTOTAL</b>				<b>\$ 111,101.25</b>



**POPLAR STREET - STA 311+08 to 323+62**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

<b>SECTION TOTAL</b>	<b>\$ 1,555,000.00</b>
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<b>4.00</b>	<b>UTILITY RELOCATES / REPLACEMENTS</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>
<b>4.10</b>	<b>WATER MAIN &amp; SERVICES</b>				
4.11	Water Main Replacement (8" dia)	100.000	LF	\$ 150.00	\$ 15,000.00
4.12	Water Service Leads	1.000	EACH	\$ 2,500.00	\$ 2,500.00
4.13	Perpendicular Water Crossings	3.000	EACH	\$ 2,000.00	\$ 6,000.00
<b>4.20</b>	<b>STORM SEWER</b>				
4.21	Storm Sewer Replacement (36" dia)	85.000	LF	\$ 125.00	\$ 10,625.00
4.22	SS Manhole 4' Allowance	3.000	EACH	\$ 4,696.00	\$ 14,088.00
4.23	SD Manhole 4' Allowance	3.000	EACH	\$ 3,745.00	\$ 11,235.00
4.24	Catch/Inlet Leads	7.000	EACH	\$ 2,000.00	\$ 14,000.00
4.25	Perp. Sanitary & Storm Sewer Crossings	9	EACH	\$ 1,000.00	\$ 9,000.00
<b>SUBTOTAL</b>					<b>\$ 82,448.00</b>



**ASH STREET - STA 340+70 to 319+72**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093

**Phone:** 847-501-6000

**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois

**Date of Plans:** April 2015

**Revision Date:** None Noted

**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

<b>SECTION TOTAL</b>	<b>\$</b>	<b>404,000.00</b>
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1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 329,000.00	\$ 16,450.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 329,000.00	\$ 9,870.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 329,000.00	\$ 3,290.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 329,000.00	\$ 6,580.00
1.15 Site Sanitary Facilities	2.000	MTH	\$ 650.00	\$ 1,300.00
1.16 Contractors Field Office	2.000	MTH	\$ 3,000.00	\$ 6,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 329,000.00	\$ 11,515.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 329,000.00	\$ 19,740.00
<b>SUBTOTAL</b>				<b>\$ 74,745.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	250.000	LF	\$ 2.25	\$ 562.50
2.12 Demo PCC Base Course 8"	105.000	SY	\$ 8.95	\$ 939.75
2.13 Bituminous Surface Removal - 3"	105.000	SY	\$ 4.15	\$ 435.75
2.14 Aggregate Base Course Removal - 4"	12.000	CY	\$ 30.00	\$ 360.00
2.15 PCC Curb Removal	200.000	LF	\$ 3.25	\$ 650.00
<b>2.20 PIPE INSTALLATION</b>				
2.21 Install 48" RCP Storm Sewer (13' - 16' Dpth)	467.000	LF	\$ 275.00	\$ 128,425.00
2.22 Install 24" RCP Storm Sewer (5' - 7' Dpth)	80.000	LF	\$ 75.00	\$ 6,000.00
2.23 Storm Manhole Installation	2.000	EACH	\$ 10,000.00	\$ 20,000.00
2.24 High Cap Inlet Installation	2.000	EACH	\$ 6,500.00	\$ 13,000.00
2.25 Trench Backfill (CA-7)	390.000	CY	\$ 54.65	\$ 21,313.50
2.26 Spoil Removal (CCDD)	1,800.000	CY	\$ 35.10	\$ 63,180.00
<b>SUBTOTAL</b>				<b>\$ 254,866.50</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	50.000	SY	\$ 14.25	\$ 712.50
3.12 Bituminous Binder Course (2.50")	7.000	TON	\$ 350.00	\$ 2,450.00
3.13 Bituminous Surface Course IL-19, N50 1.50"	4.000	TON	\$ 425.00	\$ 1,700.00
3.14 B6.12 Curb & Gutter	200.000	LF	\$ 20.00	\$ 4,000.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 6,000.00	\$ 6,000.00
3.22 Parkway Seed & Blanket	1,215.000	SY	\$ 10.00	\$ 12,150.00
<b>SUBTOTAL</b>				<b>\$ 27,012.50</b>



**ASH STREET - STA 340+70 to 319+72**

**Client:** Steve Saunders  
Village of Winnetka  
510 Greenbay Road  
Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 404,000.00**

<b>4.00</b>	<b>UTILITY RELOCATES / REPLACEMENTS</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>
<b>4.10</b>	<b>WATER MAIN &amp; SERVICES</b>				
4.11	Water Service Leads	6.000	EACH	\$ 2,500.00	\$ 15,000.00
4.12	6' Direct Bury Fire Hydrants W/ Aux Valve	1.000	EACH	\$ 5,000.00	\$ 5,000.00
4.13	8" Gate Valve in 48" Dia. Vault	1.000	EACH	\$ 4,500.00	\$ 4,500.00
4.14	Perpendicular Water Crossings	2.000	EACH	\$ 2,000.00	\$ 4,000.00
<b>4.20</b>	<b>STORM SEWER</b>				
4.21	SS Manhole 4' Allowance	2.000	EACH	\$ 2,500.00	\$ 5,000.00
4.22	Catch/Inlet Leads	4.000	EACH	\$ 2,000.00	\$ 8,000.00
4.23	Perp. Sanitary & Storm Sewer Crossings	6	EACH	\$ 1,000.00	\$ 6,000.00
<b>SUBTOTAL</b>					<b>\$ 47,500.00</b>



**BIRCH STREET - STA 400+91 to 422+90**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 3,709,000.00**

1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 3,066,000.00	\$ 153,300.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 3,066,000.00	\$ 91,980.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 3,066,000.00	\$ 30,660.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 3,066,000.00	\$ 61,320.00
1.15 Site Sanitary Facilities	4.000	MTH	\$ 650.00	\$ 2,600.00
1.16 Contractors Field Office	4.000	MTH	\$ 3,000.00	\$ 12,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 3,066,000.00	\$ 107,310.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 3,066,000.00	\$ 183,960.00
<b>SUBTOTAL</b>				<b>\$ 643,130.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	700.000	LF	\$ 2.25	\$ 1,575.00
2.12 Bituminous Surface Removal - 3"	5,225.000	SY	\$ 4.15	\$ 21,683.75
2.13 Aggregate Base Course Removal - 4"	575.000	CY	\$ 30.00	\$ 17,250.00
2.14 PCC Curb Removal	2,286.000	LF	\$ 3.25	\$ 7,429.50
<b>2.20 PIPE INSTALLATION</b>				
2.21 Install 60" RCP Storm Sewer (12' - 25' Dpth)	2,286.000	LF	\$ 450.00	\$ 1,028,700.00
2.22 Storm Manhole Installation	8.000	EACH	\$ 25,000.00	\$ 200,000.00
2.23 High Cap Inlet Installation	4.000	EACH	\$ 6,500.00	\$ 26,000.00
2.24 Connect to Existing Deep Drop (+/- 25')	1.000	EACH	\$ 25,000.00	\$ 25,000.00
2.25 Trench Backfill (CA-7)	9,325.000	CY	\$ 54.65	\$ 509,611.25
2.26 Spoil Removal (CCDD)	12,994.000	CY	\$ 35.10	\$ 456,089.40
<b>SUBTOTAL</b>				<b>\$ 2,293,338.90</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	5,227.000	SY	\$ 14.25	\$ 74,484.75
3.12 Bituminous Binder Course (4.00")	1,170.000	TON	\$ 85.00	\$ 99,450.00
3.13 Bituminous Surface Course IL-19, N50 2.00"	585.000	TON	\$ 90.00	\$ 52,650.00
3.14 B6.12 Curb & Gutter	2,286.000	LF	\$ 20.00	\$ 45,720.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 23,000.00	\$ 23,000.00
3.22 Parkway Seed & Blanket	5,080.000	SY	\$ 10.00	\$ 50,800.00
<b>SUBTOTAL</b>				<b>\$ 346,104.75</b>



**BIRCH STREET - STA 400+91 to 422+90**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

<b>SECTION TOTAL</b>	<b>\$ 3,709,000.00</b>
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4.00	UTILITY RELOCATES / REPLACEMENTS	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>4.10</b>	<b>WATER MAIN &amp; SERVICES</b>				
4.11	Water Main Replacement (8" dia)	1,070.000	LF	\$ 150.00	\$ 160,500.00
4.12	Water Service Leads	23.000	EACH	\$ 2,500.00	\$ 57,500.00
4.13	6' Direct Bury Fire Hydrants W/ Aux Valve	2.000	EACH	\$ 5,000.00	\$ 10,000.00
4.14	8" Gate Valve in 48" Dia. Vault	2.000	EACH	\$ 4,500.00	\$ 9,000.00
4.15	Perpendicular Water Crossings	4.000	EACH	\$ 1,500.00	\$ 6,000.00
<b>4.20</b>	<b>STORM &amp; SANITARY SEWER</b>				
4.21	Storm Sewer Replacement (18" RCP)	270.000	LF	\$ 60.00	\$ 16,200.00
4.22	Storm Sewer Replacement (30" RCP)	16.000	LF	\$ 100.00	\$ 1,600.00
4.23	Storm Sewer Replacement (36" RCP)	225.000	LF	\$ 125.00	\$ 28,125.00
4.24	Sanitary Sewer Replacement (8" Dia.)	280.000	LF	\$ 150.00	\$ 42,000.00
4.25	SS Manhole 4' Allowance	5.000	EACH	\$ 4,696.00	\$ 23,480.00
4.26	SD Manhole 4' Allowance	7.000	EACH	\$ 3,745.00	\$ 26,215.00
4.27	Catch/Inlet Leads	19.000	EACH	\$ 2,000.00	\$ 38,000.00
4.28	Perp. Sanitary & Storm Sewer Crossings	8	EACH	\$ 1,000.00	\$ 8,000.00
<b>SUBTOTAL</b>					<b>\$ 426,620.00</b>



**WESTMOORE ROAD - STA 500+76 to 503+10**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093

**Phone:** 847-501-6000

**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois

**Date of Plans:** April 2015

**Revision Date:** None Noted

**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 337,000.00**

1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 274,000.00	\$ 13,700.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 274,000.00	\$ 8,220.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 274,000.00	\$ 2,740.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 274,000.00	\$ 5,480.00
1.15 Site Sanitary Facilities	2.000	MTH	\$ 650.00	\$ 1,300.00
1.16 Contractors Field Office	2.000	MTH	\$ 3,000.00	\$ 6,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 274,000.00	\$ 9,590.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 274,000.00	\$ 16,440.00
<b>SUBTOTAL</b>				<b>\$ 63,470.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	258.000	LF	\$ 2.25	\$ 580.50
2.13 Bituminous Surface Removal - 3"	333.000	SY	\$ 4.15	\$ 1,381.95
2.14 Aggregate Base Course Removal - 4"	36.000	CY	\$ 30.00	\$ 1,080.00
2.15 PCC Curb Removal	250.000	LF	\$ 3.25	\$ 812.50
<b>2.20 PIPE INSTALLATION</b>				
2.21 Install 48" RCP Storm Sewer (13' - 15' Dpth)	258.000	LF	\$ 275.00	\$ 70,950.00
2.22 Storm Manhole Installation	2.000	EACH	\$ 10,000.00	\$ 20,000.00
2.23 High Cap Inlet Installation	2.000	EACH	\$ 6,500.00	\$ 13,000.00
2.24 Trench Backfill (CA-7)	908.000	CY	\$ 54.65	\$ 49,622.20
2.25 Spoil Removal (CCDD)	1,198.000	CY	\$ 35.10	\$ 42,049.80
<b>SUBTOTAL</b>				<b>\$ 199,476.95</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	333.000	SY	\$ 14.25	\$ 4,745.25
3.12 Bituminous Binder Course (4.00")	75.000	TON	\$ 85.00	\$ 6,375.00
3.13 Bituminous Surface Course IL-19, N50 2.00"	37.000	TON	\$ 90.00	\$ 3,330.00
3.14 B6.12 Curb & Gutter	250.000	LF	\$ 20.00	\$ 5,000.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 3,000.00	\$ 3,000.00
3.22 Parkway Seed & Blanket	575.000	SY	\$ 10.00	\$ 5,750.00
<b>SUBTOTAL</b>				<b>\$ 28,200.25</b>



**WESTMOORE ROAD - STA 500+76 to 503+10**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

<b>SECTION TOTAL</b>	<b>\$</b>	<b>337,000.00</b>
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<b>4.00</b>	<b>UTILITY RELOCATES / REPLACEMENTS</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>
<b>4.10</b>	<b>WATER MAIN &amp; SERVICES</b>				
4.11	Water Service Leads	3.000	EACH	\$ 2,500.00	\$ 7,500.00
4.12	8" Gate Valve in 48" Dia. Vault	2.000	EACH	\$ 4,500.00	\$ 9,000.00
<b>4.20</b>	<b>STORM SEWER</b>				
4.21	Storm Sewer Replacement (18" dia)	20.000	LF	\$ 60.00	\$ 1,200.00
4.22	Storm Sewer Removal (36" dia)	10.000	LF	\$ 75.00	\$ 750.00
4.23	Sanitary Sewer Replacement (8" Dia.)	120.000	LF	\$ 150.00	\$ 18,000.00
4.24	SD Manhole 4' Allowance	1.000	EACH	\$ 2,500.00	\$ 2,500.00
4.25	Catch/Inlet Leads	3.000	EACH	\$ 2,000.00	\$ 6,000.00
4.26	Perp. Sanitary & Storm Sewer Crossings	1	EACH	\$ 1,000.00	\$ 1,000.00
<b>SUBTOTAL</b>					<b>\$ 45,950.00</b>



**LOCUST STREET - STA 510+49 to 549+45**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093

**Phone:** 847-501-6000

**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois

**Date of Plans:** April 2015

**Revision Date:** None Noted

**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 4,755,000.00**

1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 3,934,000.00	\$ 196,700.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 3,934,000.00	\$ 118,020.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 3,934,000.00	\$ 39,340.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 3,934,000.00	\$ 78,680.00
1.15 Site Sanitary Facilities	4.000	MTH	\$ 650.00	\$ 2,600.00
1.16 Contractors Field Office	4.000	MTH	\$ 3,000.00	\$ 12,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 3,934,000.00	\$ 137,690.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 3,934,000.00	\$ 236,040.00
<b>SUBTOTAL</b>				<b>\$ 821,070.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	3,959.000	LF	\$ 2.25	\$ 8,907.75
2.13 Bituminous Surface Removal - 3"	5,915.000	SY	\$ 4.15	\$ 24,547.25
2.14 Aggregate Base Course Removal - 4"	650.000	CY	\$ 30.00	\$ 19,500.00
2.15 PCC Curb Removal	4,945.000	LF	\$ 3.25	\$ 16,071.25
<b>2.20 PIPE INSTALLATION</b>				
2.21 Install 72" RCP Storm Sewer (13' - 16' Dpth)	1,339.000	LF	\$ 550.00	\$ 736,450.00
2.22 Install 48" RCP Storm Sewer (15' - 18' Dpth)	2,620.000	LF	\$ 275.00	\$ 720,500.00
2.23 High Cap Inlet Installation	6.000	EACH	\$ 6,500.00	\$ 39,000.00
2.24 Storm Manhole Installation	9.000	EACH	\$ 9,500.00	\$ 85,500.00
2.25 Connect to Existing Deep Drop (+/- 13')	1.000	EACH	\$ 5,000.00	\$ 5,000.00
2.26 Trench Backfill (CA-7)	13,925.000	CY	\$ 54.65	\$ 761,001.25
2.27 Spoil Removal (CCDD)	19,695.000	CY	\$ 35.10	\$ 691,294.50
<b>SUBTOTAL</b>				<b>\$ 3,107,772.00</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	5,915.000	SY	\$ 14.25	\$ 84,288.75
3.12 Bituminous Binder Course (4.00")	1,325.000	TON	\$ 85.00	\$ 112,625.00
3.13 Bituminous Surface Course IL-19, N50 2.00"	660.000	TON	\$ 90.00	\$ 59,400.00
3.14 B6.12 Curb & Gutter	4,945.000	LF	\$ 20.00	\$ 98,900.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 10,000.00	\$ 10,000.00
3.22 Parkway Seed & Blanket	8,800.000	SY	\$ 10.00	\$ 88,000.00
<b>SUBTOTAL</b>				<b>\$ 453,213.75</b>



**LOCUST STREET - STA 510+49 to 549+45**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

<b>SECTION TOTAL</b>	<b>\$ 4,755,000.00</b>
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<b>4.00</b>	<b>UTILITY RELOCATES / REPLACEMENTS</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>
<b>4.10</b>	<b>WATER MAIN &amp; SERVICES</b>				
4.11	Water Main Replacement (8" dia)	450.000	LF	\$ 150.00	\$ 67,500.00
4.12	Water Service Leads	10.000	EACH	\$ 2,500.00	\$ 25,000.00
4.13	6' Direct Bury Fire Hydrants W/ Aux Valve	2.000	EACH	\$ 5,000.00	\$ 10,000.00
4.14	8" Gate Valve in 48" Dia. Vault	4.000	EACH	\$ 4,500.00	\$ 18,000.00
4.15	Perpendicular Water Crossings	11.000	EACH	\$ 2,000.00	\$ 22,000.00
<b>4.20</b>	<b>STORM SEWER</b>				
4.21	Storm Sewer Replacement (18" dia)	680.000	LF	\$ 60.00	\$ 40,800.00
4.22	Storm Sewer Reopacement (36" dia)	170.000	LF	\$ 125.00	\$ 21,250.00
4.23	Sanitary Sewer Replacement (8" Dia.)	670.000	LF	\$ 150.00	\$ 100,500.00
4.24	SS Manhole 4' Allowance	3.000	EACH	\$ 4,696.00	\$ 14,088.00
4.25	SD Manhole 4' Allowance	5.000	EACH	\$ 3,745.00	\$ 18,725.00
4.26	Catch/Inlet Leads	11.000	EACH	\$ 2,000.00	\$ 22,000.00
4.27	Perp. Sanitary & Storm Sewer Crossings	13.000	EACH	\$ 1,000.00	\$ 13,000.00
<b>SUBTOTAL</b>					<b>\$ 372,863.00</b>



**WINNETKA ROAD - STA 231+60 to 237+50**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093

**Phone:** 847-501-6000

**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois

**Date of Plans:** April 2015

**Revision Date:** None Noted

**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

<b>SECTION TOTAL</b>	<b>\$</b>	<b>636,000.00</b>
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1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 522,000.00	\$ 26,100.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 522,000.00	\$ 15,660.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 522,000.00	\$ 5,220.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 522,000.00	\$ 10,440.00
1.15 Site Sanitary Facilities	2.000	MTH	\$ 650.00	\$ 1,300.00
1.16 Contractors Field Office	2.000	MTH	\$ 3,000.00	\$ 6,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 522,000.00	\$ 18,270.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 522,000.00	\$ 31,320.00
<b>SUBTOTAL</b>			<b>\$</b>	<b>114,310.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	585.000	LF	\$ 2.25	\$ 1,316.25
2.12 Demo PCC Base Course 8"	485.000	SY	\$ 8.95	\$ 4,340.75
2.13 Bituminous Surface Removal - 3"	485.000	SY	\$ 4.15	\$ 2,012.75
2.14 Aggregate Base Course Removal - 4"	53.000	CY	\$ 30.00	\$ 1,590.00
2.15 PCC Curb Removal	585.000	LF	\$ 3.25	\$ 1,901.25
<b>2.20 PIPE INSTALLATION</b>				
2.21 Install 36" RCP Storm Sewer (6'- 10' Dpth)	170.000	LF	\$ 125.00	\$ 21,250.00
2.22 Install 60" RCP Storm Sewer (13' - 15' Dpth)	521.000	LF	\$ 400.00	\$ 208,400.00
2.23 Storm Manhole Installation	3.000	EACH	\$ 15,000.00	\$ 45,000.00
2.24 High Cap Inlet Installation	2.000	EACH	\$ 6,500.00	\$ 13,000.00
2.25 Trench Backfill (CA-7)	832.000	CY	\$ 54.65	\$ 45,468.80
2.26 Spoil Removal (CCDD)	1,305.000	CY	\$ 35.10	\$ 45,805.50
<b>SUBTOTAL</b>			<b>\$</b>	<b>390,085.30</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	485.000	SY	\$ 14.25	\$ 6,911.25
3.12 Bituminous Binder Course (2.50")	68.000	TON	\$ 85.00	\$ 5,780.00
3.13 Bituminous Surface Course IL-19, N50 1.50"	40.000	TON	\$ 90.00	\$ 3,600.00
3.14 B6.12 Curb & Gutter	585.000	LF	\$ 20.00	\$ 11,700.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 4,000.00	\$ 4,000.00
3.22 Parkway Seed & Blanket	1,535.000	SY	\$ 10.00	\$ 15,350.00
<b>SUBTOTAL</b>			<b>\$</b>	<b>47,341.25</b>



**WINNETKA ROAD - STA 231+60 to 237+50**

**Client:** Steve Saunders  
Village of Winnetka  
510 Greenbay Road  
Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 636,000.00**

<b>4.00</b>	<b>UTILITY RELOCATES / REPLACEMENTS</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>
<b>4.10</b>	<b>WATER MAIN &amp; SERVICES</b>				
4.11	Water Main Replacement (8" dia)	50.000	LF	\$ 150.00	\$ 7,500.00
4.12	Water Service Leads	4.000	EACH	\$ 2,500.00	\$ 10,000.00
4.13	Perpendicular Water Crossings	6.000	EACH	\$ 2,000.00	\$ 12,000.00
<b>4.20</b>	<b>STORM SEWER</b>				
4.21	Storm Sewer Replacement (18" dia)	480.000	LF	\$ 60.00	\$ 28,800.00
4.22	Storm Sewer Removal (36" dia)	120.000	LF	\$ 75.00	\$ 9,000.00
4.23	SS Manhole 4' Allowance	2.000	EACH	\$ 2,500.00	\$ 5,000.00
4.24	Catch/Inlet Leads	4.000	EACH	\$ 2,000.00	\$ 8,000.00
4.25	Perp. Sanitary & Storm Sewer Crossings	4	EACH	\$ 1,000.00	\$ 4,000.00
<b>SUBTOTAL</b>					<b>\$ 84,300.00</b>



**BERKELEY AVENUE - STA 601+00 to 613+00**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093

**Phone:** 847-501-6000

**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois

**Date of Plans:** April 2015

**Revision Date:** None Noted

**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 2,811,000.00**

1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 2,321,000.00	\$ 116,050.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 2,321,000.00	\$ 69,630.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 2,321,000.00	\$ 23,210.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 2,321,000.00	\$ 46,420.00
1.15 Site Sanitary Facilities	4.000	MTH	\$ 650.00	\$ 2,600.00
1.16 Contractors Field Office	4.000	MTH	\$ 3,000.00	\$ 12,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 2,321,000.00	\$ 81,235.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 2,321,000.00	\$ 139,260.00
<b>SUBTOTAL</b>				<b>\$ 490,405.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	700.000	LF	\$ 2.25	\$ 1,575.00
2.12 Bituminous Surface Removal - 3"	2,960.000	SY	\$ 4.15	\$ 12,284.00
2.13 Aggregate Base Course Removal - 4"	325.000	CY	\$ 30.00	\$ 9,750.00
2.14 PCC Curb Removal	2,562.000	LF	\$ 3.25	\$ 8,326.50
<b>2.20 PIPE INSTALLATION</b>				
2.21 Install 96" RCP Storm Sewer (14' - 16' Dpth)	441.000	LF	\$ 1,100.00	\$ 485,100.00
2.22 Install 84" RCP Storm Sewer (12' - 14' Dpth)	890.000	LF	\$ 700.00	\$ 623,000.00
2.23 Storm Manhole Installation	6.000	EACH	\$ 50,000.00	\$ 300,000.00
2.24 Connect to Existing Deep Drop (+/- 16')	1.000	EACH	\$ 20,000.00	\$ 20,000.00
2.25 Trench Backfill (CA-7)	3,706.000	CY	\$ 54.65	\$ 202,532.90
2.26 Spoil Removal (CCDD)	11,125.000	CY	\$ 35.10	\$ 390,487.50
<b>SUBTOTAL</b>				<b>\$ 2,053,055.90</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	2,960.000	SY	\$ 14.25	\$ 42,180.00
3.12 Bituminous Binder Course (2.50")	415.000	TON	\$ 85.00	\$ 35,275.00
3.13 Bituminous Surface Course IL-19, N50 1.50"	225.000	TON	\$ 90.00	\$ 20,250.00
3.14 B6.12 Curb & Gutter	2,562.000	LF	\$ 20.00	\$ 51,240.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 10,000.00	\$ 10,000.00
3.22 Parkway Seed & Blanket	2,960.000	SY	\$ 10.00	\$ 29,600.00
<b>SUBTOTAL</b>				<b>\$ 188,545.00</b>



**BERKELEY AVENUE - STA 601+00 to 613+00**

**Client:** Steve Saunders  
Village of Winnetka  
510 Greenbay Road  
Winnetka, Illinois 60093

**Phone:** 847-501-6000

**Email:**

**Job Name:** Willow Rd STADI  
Winnetka, Illinois

**Date of Plans:** April 2015

**Revision Date:** None Noted

**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 2,811,000.00**

4.00	UTILITY RELOCATES / REPLACEMENTS	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>4.10</b>	<b>WATER MAIN &amp; SERVICES</b>				
4.11	Water Main Replacement (8" dia)	95.000	LF	\$ 150.00	\$ 14,250.00
4.12	Water Service Leads	10.000	EACH	\$ 2,500.00	\$ 25,000.00
4.13	Perpendicular Water Crossings	6.000	EACH	\$ 2,000.00	\$ 12,000.00
<b>4.20</b>	<b>STORM SEWER</b>				
4.21	Catch/Inlet Leads	10.000	EACH	\$ 2,000.00	\$ 20,000.00
4.22	Perp. Sanitary & Storm Sewer Crossings	8	EACH	\$ 1,000.00	\$ 8,000.00
<b>SUBTOTAL</b>					<b>\$ 79,250.00</b>



**ASH STREET - STA 620+50 to 627+29**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093

**Phone:** 847-501-6000

**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois

**Date of Plans:** April 2015

**Revision Date:** None Noted

**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

<b>SECTION TOTAL</b>	<b>\$</b>	<b>851,000.00</b>
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1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 700,000.00	\$ 35,000.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 700,000.00	\$ 21,000.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 700,000.00	\$ 7,000.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 700,000.00	\$ 14,000.00
1.15 Site Sanitary Facilities	2.000	MTH	\$ 650.00	\$ 1,300.00
1.16 Contractors Field Office	2.000	MTH	\$ 3,000.00	\$ 6,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 700,000.00	\$ 24,500.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 700,000.00	\$ 42,000.00
<b>SUBTOTAL</b>				<b>\$ 150,800.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	680.000	LF	\$ 2.25	\$ 1,530.00
2.12 Bituminous Surface Removal - 3"	1,800.000	SY	\$ 4.15	\$ 7,470.00
2.13 Aggregate Base Course Removal - 4"	198.000	CY	\$ 30.00	\$ 5,940.00
2.14 PCC Curb Removal	1,360.000	LF	\$ 3.25	\$ 4,420.00
<b>2.20 PIPE INSTALLATION</b>				
2.21 Install 24" RCP Storm Sewer (6' - 8' Dpth)	30.000	LF	\$ 100.00	\$ 3,000.00
2.22 Install 48" RCP Storm Sewer (13' - 16' Dpth)	680.000	LF	\$ 275.00	\$ 187,000.00
2.23 Storm Manhole Installation	3.000	EACH	\$ 10,000.00	\$ 30,000.00
2.24 High Cap Inlet Installation	2.000	EACH	\$ 6,500.00	\$ 13,000.00
2.25 Connect to Existing SMH (+/- 10')	1.000	EACH	\$ 6,500.00	\$ 6,500.00
2.26 Trench Backfill (CA-7)	1,136.000	CY	\$ 54.65	\$ 62,082.40
2.27 Spoil Removal (CCDD)	1,906.000	CY	\$ 35.10	\$ 66,900.60
<b>SUBTOTAL</b>				<b>\$ 387,843.00</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	1,800.000	SY	\$ 14.25	\$ 25,650.00
3.12 Bituminous Binder Course (4.00")	405.000	TON	\$ 85.00	\$ 34,425.00
3.13 Bituminous Surface Course IL-19, N50 2.00"	202.000	TON	\$ 90.00	\$ 18,180.00
3.14 B6.12 Curb & Gutter	1,360.000	LF	\$ 20.00	\$ 27,200.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 13,000.00	\$ 13,000.00
3.22 Parkway Seed & Blanket	1,510.000	SY	\$ 10.00	\$ 15,100.00
<b>SUBTOTAL</b>				<b>\$ 133,555.00</b>



**ASH STREET - STA 620+50 to 627+29**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

<b>SECTION TOTAL</b>	<b>\$</b>	<b>851,000.00</b>
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<b>4.00</b>	<b>UTILITY RELOCATES / REPLACEMENTS</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>
<b>4.10</b>	<b>WATER MAIN &amp; SERVICES</b>				
4.11	Water Main Replacement (8" dia)	710.000	LF	\$ 150.00	\$ 106,500.00
4.12	Water Service Leads	13.000	EACH	\$ 2,500.00	\$ 32,500.00
4.13	6' Direct Bury Fire Hydrants W/ Aux Valve	2.000	EACH	\$ 5,000.00	\$ 10,000.00
4.14	8" Gate Valve in 48" Dia. Vault	2.000	EACH	\$ 4,500.00	\$ 9,000.00
4.15	Perpendicular Water Crossings	1.000	EACH	\$ 2,000.00	\$ 2,000.00
<b>4.20</b>	<b>STORM SEWER</b>				
4.21	SS Manhole 4' Allowance	2.000	EACH	\$ 2,500.00	\$ 5,000.00
4.22	Catch/Inlet Leads	6.000	EACH	\$ 2,000.00	\$ 12,000.00
4.23	Perp. Sanitary & Storm Sewer Crossings	2	EACH	\$ 1,000.00	\$ 2,000.00
<b>SUBTOTAL</b>					<b>\$ 179,000.00</b>



**PINE STREET - STA 700+72 to 703+33**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

<b>SECTION TOTAL</b>	<b>\$</b>	<b>502,000.00</b>
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1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 411,000.00	\$ 20,550.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 411,000.00	\$ 12,330.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 411,000.00	\$ 4,110.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 411,000.00	\$ 8,220.00
1.15 Site Sanitary Facilities	2.000	MTH	\$ 650.00	\$ 1,300.00
1.16 Contractors Field Office	2.000	MTH	\$ 3,000.00	\$ 6,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 411,000.00	\$ 14,385.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 411,000.00	\$ 24,660.00
<b>SUBTOTAL</b>				<b>\$ 91,555.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	200.000	LF	\$ 2.25	\$ 450.00
2.12 Bituminous Surface Removal - 3"	635.000	SY	\$ 4.15	\$ 2,635.25
2.13 Aggregate Base Course Removal - 4"	70.000	CY	\$ 30.00	\$ 2,100.00
2.14 PCC Curb Removal	620.000	LF	\$ 3.25	\$ 2,015.00
<b>2.20 PIPE INSTALLATION</b>				
2.21 Install 30" RCP Storm Sewer (6' - 8' Dpth)	40.000	LF	\$ 115.00	\$ 4,600.00
2.22 Install 36" RCP Storm Sewer (6' - 8' Dpth)	16.000	LF	\$ 125.00	\$ 2,000.00
2.23 Install 72" RCP Storm Sewer (13' - 16' Dpth)	270.000	LF	\$ 550.00	\$ 148,500.00
2.24 Storm Manhole Installation	2.000	EACH	\$ 25,000.00	\$ 50,000.00
2.25 High Cap Inlet Installation	2.000	EACH	\$ 6,500.00	\$ 13,000.00
2.26 Trench Backfill (CA-7)	562.000	CY	\$ 54.65	\$ 30,713.30
2.27 Spoil Removal (CCDD)	1,200.000	CY	\$ 35.10	\$ 42,120.00
<b>SUBTOTAL</b>				<b>\$ 298,133.55</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	635.000	SY	\$ 14.25	\$ 9,048.75
3.12 Bituminous Binder Course (2.50")	90.000	TON	\$ 85.00	\$ 7,650.00
3.13 Bituminous Surface Course IL-19, N50 1.50"	54.000	TON	\$ 90.00	\$ 4,860.00
3.14 B6.12 Curb & Gutter	620.000	LF	\$ 20.00	\$ 12,400.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 3,000.00	\$ 3,000.00
3.22 Parkway Seed & Blanket	600.000	SY	\$ 10.00	\$ 6,000.00
<b>SUBTOTAL</b>				<b>\$ 42,958.75</b>



**PINE STREET - STA 700+72 to 703+33**

**Client:** Steve Saunders  
Village of Winnetka  
510 Greenbay Road  
Winnetka, Illinois 60093

**Phone:** 847-501-6000

**Email:**

**Job Name:** Willow Rd STADI  
Winnetka, Illinois

**Date of Plans:** April 2015

**Revision Date:** None Noted

**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 502,000.00**

4.00	UTILITY RELOCATES / REPLACEMENTS	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>4.10</b>	<b>WATER MAIN &amp; SERVICES</b>				
4.11	Water Service Leads	3.000	EACH	\$ 2,500.00	\$ 7,500.00
<b>4.20</b>	<b>STORM SEWER</b>				
4.21	SS Manhole 4' Allowance	1.000	EACH	\$ 2,500.00	\$ 2,500.00
4.22	Sanitary Sewer Replacement (8" Dia.)	350.000	LF	\$ 150.00	\$ 52,500.00
4.23	Catch/Inlet Leads	3.000	EACH	\$ 2,000.00	\$ 6,000.00
4.24	Perp. Sanitary & Storm Sewer Crossings	1.000	EACH	\$ 1,000.00	\$ 1,000.00
<b>SUBTOTAL</b>					<b>\$ 69,500.00</b>



**HIBBARD ROAD - STA 710+30 to 712+55**

**Client:** Steve Saunders  
 Village of Winnetka  
 510 Greenbay Road  
 Winnetka, Illinois 60093

**Phone:** 847-501-6000

**Email:**

**Job Name:** Willow Rd STADI  
 Winnetka, Illinois

**Date of Plans:** April 2015

**Revision Date:** None Noted

**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 1,318,000.00**

1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>1.10 GENERAL CONDITIONS - HARD COST</b>				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 1,082,000.00	\$ 54,100.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 1,082,000.00	\$ 32,460.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 1,082,000.00	\$ 10,820.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 1,082,000.00	\$ 21,640.00
1.15 Site Sanitary Facilities	4.000	MTH	\$ 650.00	\$ 2,600.00
1.16 Contractors Field Office	4.000	MTH	\$ 3,000.00	\$ 12,000.00
<b>1.20 GENERAL CONDITIONS - SOFT COST</b>	4.000			
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 1,082,000.00	\$ 37,870.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 1,082,000.00	\$ 64,920.00
<b>SUBTOTAL</b>				<b>\$ 236,410.00</b>

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>2.10 DEMOLITION</b>				
2.11 Pavement Sawcutting	250.000	LF	\$ 2.25	\$ 562.50
2.13 Bituminous Surface Removal - 3"	735.000	SY	\$ 4.15	\$ 3,050.25
2.14 Aggregate Base Course Removal - 4"	80.000	CY	\$ 30.00	\$ 2,400.00
2.15 PCC Curb Removal	500.000	LF	\$ 3.25	\$ 1,625.00
<b>2.20 PIPE INSTALLATION</b>				
2.21 Install 72" RCP Storm Sewer (13' - 16' Dpth)	898.000	LF	\$ 550.00	\$ 493,900.00
2.23 Storm Manhole Installation	3.000	EACH	\$ 25,000.00	\$ 75,000.00
2.25 Connect to Existing Manhole (+/- 12')	2.000	EACH	\$ 15,000.00	\$ 30,000.00
2.26 Trench Backfill (CA-7)	1,974.000	CY	\$ 54.65	\$ 107,879.10
2.27 Spoil Removal (CCDD)	3,981.000	CY	\$ 35.10	\$ 139,733.10
<b>SUBTOTAL</b>				<b>\$ 854,149.95</b>

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
<b>3.10 ROADWAY PAVING &amp; CONCRETE</b>				
3.11 Aggregate Base Installation (12" CA-6)	735.000	SY	\$ 14.25	\$ 10,473.75
3.12 Bituminous Binder Course (2.50")	105.000	TON	\$ 85.00	\$ 8,925.00
3.13 Bituminous Surface Course IL-19, N50 1.50"	60.000	TON	\$ 90.00	\$ 5,400.00
3.14 B6.12 Curb & Gutter	500.000	LF	\$ 20.00	\$ 10,000.00
<b>3.20 ROW RESTORATION</b>				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 5,000.00	\$ 5,000.00
3.22 Parkway Seed & Blanket	1,995.000	SY	\$ 20.00	\$ 39,900.00
<b>SUBTOTAL</b>				<b>\$ 79,698.75</b>



**HIBBARD ROAD - STA 710+30 to 712+55**

**Client:** Steve Saunders  
Village of Winnetka  
510 Greenbay Road  
Winnetka, Illinois 60093  
**Phone:** 847-501-6000  
**Email:**

**Job Name:** Willow Rd STADI  
Winnetka, Illinois  
**Date of Plans:** April 2015  
**Revision Date:** None Noted  
**Date of Estimate:** 6/26/2015

**CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS**

**SECTION TOTAL \$ 1,318,000.00**

<b>4.00</b>	<b>UTILITY RELOCATES / REPLACEMENTS</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>
<b>4.10</b>	<b>WATER MAIN &amp; SERVICES</b>				
4.11	Water Main Replacement (8" dia)	525.000	LF	\$ 150.00	\$ 78,750.00
4.12	Water Service Leads	5.000	EACH	\$ 2,500.00	\$ 12,500.00
4.13	6' Direct Bury Fire Hydrants W/ Aux Valve	2.000	EACH	\$ 5,000.00	\$ 10,000.00
4.14	8" Gate Valve in 48" Dia. Vault	3.000	EACH	\$ 4,500.00	\$ 13,500.00
<b>4.20</b>	<b>STORM SEWER</b>				
4.21	Storm Sewer Replacement (18" dia)	495.000	LF	\$ 60.00	\$ 29,700.00
4.22	Storm Sewer Removal (36" dia)	10.000	LF	\$ 75.00	\$ 750.00
4.25	Perp. Sanitary & Storm Sewer Crossings	3	EACH	\$ 1,000.00	\$ 3,000.00
<b>SUBTOTAL</b>					<b>\$ 148,200.00</b>

**ATTACHMENT #2**  
**Project Technical Review Memo**



**WILLOW ROAD STADI  
TECHNICAL REVIEW MEMORANDUM**

**Winnetka, Illinois**

V3 Project No. 15121

August 21, 2015

This technical memo presents the findings of a cursory review of the October 2011 CBBEL Village of Winnetka Flood Risk Reduction Assessment (FRRA) concept report and the April 2015 MWH Willow Road Stormwater Tunnel and Area Drainage Improvements (STADI) Preliminary Design Report. V3 and Hatch Mott MacDonald paid specific attention to the stormwater design and tunneling design aspects respectively. The following comments make up the technical review components of Task 1 of the Independent Cost Review and Value Engineering for the Willow Road STADI project.

Stormwater Design

The purpose of this section is evaluation of the hydrologic and hydraulic aspects of concept and preliminary design elements. A comprehensive evaluation was not considered within the scope of this memo and consequently a detailed analysis of the underlying computer models was not performed by V3 as part of Task 1 of this project.

The selected alternative from the CBBEL FRRA concept report consisting of a deep 8-foot diameter relief sewer along Willow Road with laterals extending north and south to locations of known flood damage. MWH determined this preferred alternative a feasible solution and thus refined in the STADI PDR for implementation. In general, the system proposed for implementation in the STADI PDR appears hydraulically adequate.

1. Consideration should be given to the high velocities expected in the proposed system, particularly near important flow disruption and transition locations such as the Lake Michigan outlet, where water quality capture is necessary. The velocities in the tunnel near Lake Michigan are proposed to be above 20 feet per second. Disruption to the flow at these velocities, such as the gate structure opening and closing, would cause concerns. As also stated in the Tunnel Design section below, V3 questions whether transient modeling has been performed to evaluate surge.
2. It appears that the flow management gate will be a particularly important feature with respect to tunnel hydraulic performance. Section 3.3 of the STADI PDR indicates that the outfall will be gated closed until an intense storm event produces a water level rise rate that triggers "*gradual opening of the gate.*" Since the design storm producing the peak flow of 1039 cfs is of 2-hour duration, the opening rate and control are critical elements. Figure 3.10 of Appendix A indicates

the rate of rise from about 100 cfs (a flow rate less much than the 2-year peak flow) to 1000 cfs is on the order of 16 to 18 minutes.

3. With respect to water quality issues, further evaluation will likely occur for the water quality treatment train once the regulatory agencies are fully engaged in the process. We note that the overview water quality management plan Figure 2.4 was missing from our copy of the STADI PDR (we assume it is similar to Figure 4.1 provided in Appendix D). The expected 2-year peak flow of 153 cfs translates to a treatment rate of nearly 7,000 gpm if only 10 percent of the 2-year peak flows need to be captured and treated. Section 3.1.1 of the STADI PDR indicates an outfall treatment rate of about 7,300 gpm with the statement that *“The treatment system is intended to provide for processing of approximately 70% of the annual discharge to Lake Michigan, including snowmelt and frequent low flows for events up to about the 50% annual chance storm.”* Because the drainage area for flow into the STADI system even for annual and 2-year recurrence events is now larger than that originally directed into Lake Michigan, this statement might be misunderstood to communicate that treatment of a significant percentage of the 2-year recurrence storm that is proposed to be routed to the outfall location would be handled by the proposed Outfall/Treatment Structure into Lake Michigan.
4. With respect to the rainfall depths used for the critical duration analysis, it is common to use the NE Illinois Bulletin 70 Table 13 values for regulatory purposes for sizing of stormwater management features within the northeastern Illinois area. However, in this circumstance it may be considered conservative when sizing for high intensity short duration storm events. The isohyets for Winnetka suggest perhaps a 10 percent reduction in rainfall depth is warranted in this area (see Bulletin 70, Figures 20 & 21 compared to Table 13 values). While adjustments may have been made during the calibration phase to “compensate” for this overage, it is possible to overestimate rainfall amounts and still produce compatible observed versus computed water surface elevations for critical identified locations within the watershed. This may still over-predict the stated 1% annual chance design storm after calibration.
5. It should be noted that the MWRD DWP for the North Branch of the Chicago River reports average Runoff Curve Numbers (RCN’s) of approximately 78 to 79 for the Skokie River portion of the STADI drainage area. The RCN’s presented in the STADI PDR appear to be somewhat higher when looking at the overall average for areas just draining to the Skokie River. It is understood that the scope of the STADI analysis is different when considering local drainage issues versus overall river flood flows. Even so, perhaps a closer look at the calibration for the STADI project area is warranted when considering an appropriate risk assignment level for rainfall depths and corresponding runoff rates and volumes.

### Tunnel Design

The purpose of this section is evaluation of the tunneling aspects of concept and preliminary design elements. This portion of the technical evaluation was completed by Hatch Mott MacDonald as part of the Task 1 review.

1. PDR – Figure 2.3: The sketch of NSIS#1 Crossing is based on "NSIS Contract No 1, Sheet No2, October 1913" shows invert EL 592.04 whereas Appendix C Sheet GBR-3 shows 592.67. More importantly, GBR-3 also shows the drop structure invert EL at 589.76. Are these elevations based on contract drawings or as-builts? I.e. has the bottom invert been confirmed with survey? Are there records of the shaft support system that show how far it was installed past the finished invert? Every inch becomes significant with less than 3-ft of clearance between this existing structure and the proposed excavated tunnel.
2. PDR Section 3.1.4: *"...final design allow for construction of shafts directly over the tunnel in the Willow Road right-of-way. This approach will provide potential bidders with greater flexibility in their evaluation of potential tunneling methods."* If tunneling, these intermediate access points are not needed during construction unless pipe jacking/microtunneling are used and it does not appear from the documents that these methods are being considered. However the shafts are required for connection of flow input. We recommend curving the tunnel to the edge of the ROW at shaft locations. This will allow some maintenance of traffic while keeping shafts on line with the tunnel (i.e. without introducing the need for a deep connection addition). As currently shown on the plan and profile drawings, full road closure will be required at each shaft location to allow for shaft support and working clearance around the shaft.
3. PDR Appendix C: Drawing sheets GBR-1 to 5 notes *"location of drop structures at lateral streets to be adjusted in the field (by engineer) to prevent traffic disruption along Willow Road."* While it is unlikely that traffic disruption can be prevented, we would normally site the shafts at the project's current level of design as the alignment is being finalized. The location of the shafts will have significant impact on the neighborhood, so the siting of the shafts should be coupled with the shaft diameter and temporary/permanent support systems.
4. PDR General: Has any transient modeling been performed to evaluate surge potential and therefore the need for ventilation at the shafts?
5. PDR 3.1.4: *"...alignment is located almost entirely within a consistent clay layer, with some indication of gravelly and/or sandy clay near the top of the alignment east of Sheridan Road"*. Appendix C, 3.2.3 notes the groundwater east of Green Bay road at 583 which is above the tunnel crown and within this GC/SC layer. This can pose a major challenge in open face tunnel construction and will need to be mitigated in the design. Mitigation can include some or all of the following: tunnel equipment to manage this ground at the face, augmenting the initial support with geotextile to limit the migration of sands, active dewatering, and/or modifying the vertical alignment. With the proximity of the lake, dewatering may not be feasible due to constant recharge.
6. PDR 3.1.5: *"...using a single pass tunnel with precast segmental lining does not seem to be a cost-competitive method and may result in more tunnel-induced settlement."* It is true that it would likely not be cost competitive due to the need to establish a manufacturing plant and the higher cost of an appropriate TBM (such as an EPB). However, mining with an EPB TBM and segments would provide significantly LESS settlement than open face tunneling using ribs and boards, especially if bentonite were injected outside of the TBM shield as is being done now successfully on other projects. Ultimately, ground conditions and tolerance for settlement

should dictate the method. Note that the tunnel diameter for this project is about the smallest that would be attempted for a segmentally-lined tunnel.

7. PDR 3.1.5: A 2-pass approach with CIP concrete lining is recommended in the first paragraph and precast RCP is stated to possibly be feasible in the section under "Final Lining System." At the diameter for this project, RCP would typically be the most economical approach and delivery of pipe this size is feasible without special traffic consideration. CIP on diameters less than 9 feet is very rare (since 8-ft diameter pipe can be transported within a lane width). FRP is certainly a viable alternative, although 40-ft lengths for this diameter is unlikely due to challenges with manufacturing, hauling, then handling in the tunnel.
8. PDR 3.1.5: A TBM of 10.5 to 11-ft diameter is anticipated for a 2-pass approach. Minimum excavated diameter should be closer to pipe OD to 2-ft to provide clearance for initial support and carrying/blocking of pipe. For RCP, the excavated tunnel diameter required would be closer to 11.5-ft.
9. PDR 3.1.5: *Initial Support System: the PDR recommends ribs 4-ft on center.* We presume that this is to limit lagging deflection, but if ground conditions allow, it is common to space ribs 5-ft on center (typical jack extension length on a TBM this size) which will reduce cost due to number of ribs and schedule savings. We have not evaluated a 5 foot spacing, and for consistency have done our independent estimate on the 4 foot rib spacing.
10. PDR 3.1.6: *"The mucking activity is almost always on the critical path for tunnel construction due to hauling time."* Typically, mucking is only on the critical path when there is a surface space constraint that precludes stockpiling. Since this does not appear to be the case here, the TBM excavation cycle and erection of support will dictate the advance rate, so mucking should not dictate design. The PDR states that the mining shaft is enlarged to 30-ft to allow switching of muck boxes in the shaft to reduce TBM standby. The larger diameter shaft is more dictated by clearance requirements for TBM assembly, and the contractor will make good use of this extra space to support mining operations. They may also install a rail switch at one of the shaft locations or on the trailing gear of the TBM to facilitate mucking.
11. PDR 3.1.6: *Receiving shaft/portal bluff by Lake Michigan: "...portal wall and outfall structure excavation support should be augmented TBM extrusion. Options may include the use of shotcrete/soil nailing or soldier piles and lagging with kickers as lateral temporary support".* When you consider the sandy gravel layer, the need to build in and around the lake, and the need to protect the slope and the adjacent structures, something more substantial than soil nails will likely be required here. A watertight system such as a sheet piling cofferdam with internal support will be required to construct the structures in this area, including the energy dissipation spillway below lake water level. Note that sheet piling carries residual risks such as damage due to vibration from installation, and the possibility to 'hang-up' on boulders. "Silent Piler" or similar technology allows the piles to be placed by pneumatic pushing which will mitigate the vibration risk. The possibility of encountering boulders would require stiffened pile tips and if boulders were encountered, they would need to be pre-split from the surface using specialized equipment.
12. PDR 3.1.6: The 5 drop structures are anticipated to be 12-ft in diameter and drilled to tunnel invert. This does not seem to consider drilled shaft initial support. Due to the likely size of the

TBM bore, these shafts would either need to be: 1) enlarged to allow the TBM to pass through the shaft with proper structural framing of the shaft support or 2) made as small as practical (6 to 8 feet in diameter) to allow a 4-ft dia. precast MH, and drilled to the crown of the tunnel after the tunnel passes and structurally connected into the crown of the RCP-lined tunnel. The larger shaft allows the Village to use CIP concrete in one or more of the intermediate shafts for future access with larger equipment. The smaller shafts could reduce impact on traffic at the surface during construction. Minor note- The PDR recommends volclay water stops at the manhole pipe joints - for this tunnel depth, pipe sections can be manufactured with joints and gaskets to sufficiently resist the groundwater pressure.

13. PDR Figure 3.2: This figure shows a potential work area for mining in the Duke Child's athletic field. While additional staging area certainly is helpful, the separation from the mining shaft by 1 block creates challenges. Furthermore, siting the mining shaft in the street will require closing of Willow Road, and also create difficulties by balancing work area around the shaft with maintaining resident access to their driveways. The Crow Island Woods park adjacent to the mining shaft is not mentioned in the PDR, presumably because this site is off limits? Although this site would be significantly impacted during construction, it would create an excellent mining site and the tunnel could be curved outside to the road immediately. This would save cost and result in a major reduction in neighborhood disruption/nuisance.
14. PDR 3.1.8: *Bullet 4: "Use ribs at 2-foot spacing to allow for support of excavated soil at a faster pace or thicker wood lagging to reduce deflection of ribs."* This would likely result in support of soil at a slower pace due to reduced advance rate from installing additional ribs. Also, thicker wood lagging would not reduce deflection of ribs. This comment also applies to the second bullet about "double erection rings and bigger dutchman" (which we assume to mean two sets of ribs erected side-by-side).
15. PDR 3.1.9: A TBM advance rate of 50 to 80 feet per shift is assumed. It is unclear if this number is a sustained average that was used in the cost estimate and schedule. These numbers are likely achievable for 2 mining shifts. However when factoring in a single mining shift and learning curve to begin tunneling, an average advance rate of 32-ft is more appropriate and this has been used in our estimate.
16. PDR 3.1.9: *"The Village has indicated that it may be possible to use its existing landfill adjacent to the Public Works Garage on Willow Road as a disposal site for suitable clay spoil"*. This information is certainly useful, however we would caution to the risks associated with this collaboration since the Village would be taking ownership of this dump site's availability. This means that the Village must be prepared to readily accept clay during all working hours to avoid potential delay claims.
17. PDR 3.2: *Paragraph 5: "...the trench should be properly supported and dewatered so that the water level is maintained below the trench bottom..."*. If dewatering is a concern for open cut, this will also likely be a concern for tunneling.
18. PDR 4.1.2: *Bullet 1: "Construction of the Willow Road trunk sewer system and the new outfall will likely need to be completed prior to the construction of the branch relief storm sewer projects."* This does not have to be the case if advantageous to the Village. Since the shallow sewers tie into a drop structure, there is a vertical break in the project. Therefore the invert of

the shallow work is set and independent of the tunnel. However this will require clear demarcation of contract limits and the open cut contractor will need to know whether they are tying into a manhole, or installing pipe with a bulkhead at the location of a future manhole.

19. PDR 4.2: A single work shift for tunneling was assumed in the PDR. This is presumably to reduce community impact by restricting work hours. It is common for tunneling to be performed based on two 10-hr shifts or three 8-hr shifts. This would reduce schedule and cost. To reduce nuisance, hauling of spoils could be restricted to normal working hours so only tunneling operations would be ongoing during non-standard times limiting the nuisance to the mining shaft area (this will still require surface support to remove spoil from the tunnel and stockpile at the surface, and to lower materials down shaft). If a mining site can be obtained outside of the road, the noise can be mitigated with sound barriers and other provisions to reduce noise, dust and light pollution. That said, for the purpose of our estimate, we have assumed a single shift for mining.
20. PDR 4.2: The procurement of this project is outlined in 4 contracts. This does not have to be the case and may increase cost due to longer schedule/escalation, additional bidding costs incurred by the Village, and not capitalizing on the efficiencies of a single mobilization. The magnitude of the project can be managed by a tunneling contractor in a single contract, although separation of the tunnel and open cut work into 2 contracts makes sense since the open cut is considerable and it may not be necessary to burden the tunneling contractor with managing this work. The main consideration for the open cut, if done under a single contract, becomes what constraints need to be provided to the contractor. To reduce neighborhood disruption from closing too many roads simultaneously, the constraints could enforce a more strategic schedule for the work, restricting multiple road/lane closures in close proximity.
21. PDR Appendix G: Rail permit application should include additional information to improve reviewer confidence with tunneling methodology and improve probability of approval. For example, should include a plan for geotechnical instrumentation and technical specification with requirements including alert/action levels. Should also include cross sections of the tunnel, and specifications for annulus filling and contact grouting. Since a previous tunnel is referenced of similar configuration, recommend incorporating settlement data from that project to demonstrate successful history in comparable ground.
22. Drawings POPP-6: DS-4 structure does not have surface access. Likely just a drawing oversight at this preliminary phase, but suggest raising to grade for future maintenance.
23. Drawings C-10: The energy dissipation spillway and chute blocks extend 12-15 feet below the lake water level. It would seem that the submerged blocks would not provide much benefit near the end of the spillway since the effluent will be mixing with lake water above that.
24. Drawings C-10: Existing storm sewer into lake called out to be demolished. If acceptable, suggest this be abandoned in place by grouting to avoid cost and challenges associated with working in lake.



## Agenda Item Executive Summary

**Title:** Ordinance No. MC-6-2015, Amending Winnetka Village Code Regarding Water Conservation (Amendment & Adoption)

**Presenter:** Brian Keys, Director of Water & Electric; Michael D'Onofrio, Director of Community Development

**Agenda Date:** 09/01/2015

- Ordinance
- Resolution
- Bid Authorization/Award
- Policy Direction
- Informational Only

**Consent:**  YES  NO

### Item History:

The Illinois Department of Natural Resources (IDNR) finalized amendments to the Lake Michigan Water Allocation Rules and Regulations in November 2014. As part of the amendments, conservation practices have been updated and all units of local government that are Lake Michigan water permittees are required to update their ordinances and/or building codes to be consistent with the rules. Revised ordinances and/or building codes are to be submitted to both the IDNR and the Illinois Department of Public Health (IDPH) by September 30, 2015.

### Executive Summary:

Ordinance No. MC-6-2015 was introduced at the July 21, 2015, Village Council Meeting. Staff initially proposed changes to the Village Code to implement an odd / even numbered day approach to meet the IDNR requirement. At the close of the discussion, the Village Council requested that staff examine other approaches. After further discussion with a representative from the IDNR, the Ordinance has been revised to only specify that watering is not permitted on consecutive days. Staff also added a clarification to Section 13.04.170, paragraph B. to allow watering of new landscaping in addition to the existing allowance for new sod or seed.

Adoption of the IDNR finalized amendments requires adoption of an ordinance which impacts the plumbing code. The IDPH must approve also these changes as the regulatory agency that administers the State of Illinois plumbing code. Staff submitted the initial ordinance to the IDPH for review. The IDPH review noted several changes that needed to be made. First, that the WaterSense provision initially contained in Title 13, was unnecessary, as it is redundant in that it is being adopted in the village plumbing ordinance. Second, it requested that the Village clarify the manner in which the plumbing code is cited in the applicable sections, eliminating any references to the edition or year of the plumbing code. Finally, IDPH requested that appropriate sanctioning authority language be clarified, listing the IDPH as the initial sanctioning authority. These changes have been incorporated into the revised Ordinance.

The Village Attorney has revised Ordinance No. MC-6-2015, titled "An Ordinance Amending the Winnetka Village Code Regarding Water Conservation." The Ordinance will revise Sections 13.04.170, 15.04.11, 15.08.010 and 15.08.060 of the Village Code to incorporate the required amendments from the IDNR.

### Recommendation:

Consider amending and adopting Ordinance No. MC-6-2015, titled "An Ordinance Amending the Winnetka Village Code Regarding Water Conservation."

### Attachments:

- 1) Agenda Report dated August 25, 2015
- 2) Revised Ordinance No. MC-6-2015, "Amending Winnetka Village Code Regarding Water Conservation"

## AGENDA REPORT

**SUBJECT:** Ordinance MC-6-2015, Amending Winnetka Village Code Regarding Water Conservation

**PREPARED BY:** Brian Keys, Director of Water & Electric  
Michael D’Onofrio, Director of Community Development

**REFERENCE:** July 21, 2015 Village Council Meeting, pp. 60-65

**DATE:** August 25, 2015

The Illinois Department of Natural Resources (IDNR) finalized amendments to the Lake Michigan Water Allocation Rules and Regulations in November 2014. As part of the amendments, conservation practices have been updated and all units of local government that are Lake Michigan water permittees are required to update their ordinances and/or building codes to be consistent with the rules. Revised ordinances and/or building codes are to be submitted to both the IDNR and the Illinois Department of Public Health (IDPH) by September 30, 2015.

As noted in the introduction of the ordinance, the change in conservation practices will require changes to the Village Code. Lawn sprinkling is no longer allowed on consecutive days and sprinkling cannot be permitted during at least a 6 hour period in the middle of the day when evapotranspiration is at its highest. The IDNR conservation amendments require that new and replacement sprinkler systems bear the WaterSense label when such labelled sprinkler systems are available. All new plumbing fixtures must also bear the WaterSense label when such labeled fixtures are available.

Ordinance MC-6-2015 was introduced at the July 21, 2015, Village Council Meeting. Staff initially proposed changes to the Village Code to implement an odd / even numbered day approach to meet the IDNR requirement. At the close of the discussion, the Village Council requested that staff examine other approaches to address concern over re-programming of sprinkler controllers on odd number months. After further discussion with a representative from the IDNR, the ordinance has been revised to only specify that watering is not permitted on consecutive days. This restriction only applies to water taken from the Village’s water distribution system. This requirement is not applicable if a customer is utilizing a pond or detained storm water for irrigation. Staff also added clarification to Section 13.04.170, paragraph B. to allow watering of new landscaping in addition to the existing allowance for new sod or seed.

Adoption of the IDNR finalized amendments requires adoption of an ordinance which impacts the plumbing code. The IDPH must approve also these changes as the regulatory entity that administers the plumbing code. Staff submitted the initial ordinance to the IDPH for review. The IDPH noted several revisions that need to be made. First, that the WaterSense provision initially contained in Title 13 was unnecessary, as it is redundant in that it is being adopted in the Village plumbing code. Second, it requested that the Village clarify the manner in which the plumbing code is cited in the applicable sections, eliminating any references to the edition or year of the plumbing code. Finally, IDPH requested that appropriate sanctioning authority

language be clarified, listing it as the initial sanctioning authority. These changes have been incorporated into the revised ordinance.

The Village Attorney has revised Ordinance MC-6-2015, titled “An Ordinance Amending the Winnetka Village Code Regarding Water Conservation.” The ordinance will revise Sections 13.04.170, 15.04.11, 15.08.010 and 15.08.060 of the Village Code to incorporate the required amendments from the IDNR.

**Recommendation:**

Consider amending and adopting Ordinance MC-6-2015, titled “An Ordinance Amending the Winnetka Village Code Regarding Water Conservation”.

**Attachments**

Revised Ordinance No. MC-6-2015, "Amending Winnetka Village Code Regarding Water Conservation"

**AN ORDINANCE AMENDING THE WINNETKA VILLAGE CODE  
REGARDING WATER CONSERVATION**

**WHEREAS**, the Village of Winnetka is a home rule municipality in accordance with Article VII, Section 6 of the Constitution of the State of Illinois of 1970 and has the authority to exercise any power and perform any function pertaining to its government and affairs; and

**WHEREAS**, Section 13.04.170 of the Village Code of the Village of Winnetka ("**Village Code**") requires users of water from the Village water supply system to engage in certain water conservation practices ("**Conservation Regulations**"); and

**WHEREAS**, Section 15.08.010 of the Village Code adopts by reference certain model codes, including the Illinois Plumbing Code, 77 Ill. Admin. Code 890 *et seq.*, and Section 15.08.060 of the Village Code adopts certain modifications and additions to the Illinois Plumbing Code (collectively, the "**Village Plumbing Code**"); and

**WHEREAS**, the Illinois Department of Natural Resources has promulgated rules governing the use of water within municipalities that receive a supply of water from Lake Michigan ("**IDNR Rules**"); and

**WHEREAS**, the Village receives a supply of water from Lake Michigan; and

**WHEREAS**, the IDNR Rules require, among other things, as a condition of receiving a supply of water from Lake Michigan, that the Village adopt ordinances: (i) prohibiting, from May 15 through September 15 of each year, lawn sprinkling by people using water from the Village water supply system on consecutive days and during a period of not less than six hours during the middle of the day; and (ii) requiring all new plumbing fixtures, irrigation controllers, and sprinkler systems installed on properties that receive water from the Village water supply system to bear the WaterSense label, as designated by the United States Environmental Protection Agency WaterSense Program; and

[WHEREAS, the Village Council desires to amend the Conservation Regulations and the Village Plumbing Code to comply with the IDNR Rules and to update and clarify provisions of the Village Plumbing Code; and](#)

**WHEREAS**, the Village Council has determined that amending the Conservation Regulations and the Village Plumbing Code ~~to comply with the IDNR Rules~~ as set forth in this Ordinance is in the best interest of the Village and its residents;

**NOW, THEREFORE**, the Council of the Village of Winnetka do ordain as follows:

**SECTION 1: RECITALS.** The foregoing recitals are hereby incorporated into this Section as the findings of the Village Council, as if fully set forth herein.

**SECTION 2: WATER CONSERVATION.** Section 13.04.170, titled “Water conservation,” of Chapter 13.04, titled “Municipal Water System,” of Title 13, titled “Municipal Utility Services,” of the Village Code is hereby amended to read as follows:

**“Section 13.04.170 Water conservation.**

A. During the period from May 15<sup>th</sup> to September 15<sup>th</sup>, inclusive, of each year it is unlawful for any person to use or any owner to allow the use of any water from the Village water mains for the purpose of lawn sprinkling:

1. On ~~an even-numbered day of the month, unless the person’s consecutive days on the same~~ property ~~bears an even-numbered address;~~ and

2. ~~On an odd-numbered day of the month, unless the person’s property bears an odd-numbered address; and~~ 3. Between the hours of 12:00 p.m. and 6:00 p.m.

B. Subject to the restrictions contained in this section and upon prior approval by the Water and Electric Director, any person or owner may use water from the Village water mains for sprinkling during otherwise prohibited hours in connection with the following activities:

1. Newly landscaped, sodded, or seeded areas of lawn may be watered at any time for the two week period following installation of such landscaping, sod, or seed;

2. The annual activation or repair of a sprinkler system may be undertaken at any time for a one day period in connection with such annual activation or repair. ~~C. Subject to other provisions of the Illinois Plumbing Code, 77 Ill. Admin. Code 890 et seq., and the Lawn Irrigation Contractor and Lawn Sprinkler System Registration Code, 77 Ill. Admin. Code 892 et seq., new and replacement sprinkler systems installed on properties connected to the Village water mains shall bear the WaterSense label (as designated by the United States Environmental Protection Agency WaterSense Program), when such labelled sprinkler systems are available.”~~

**SECTION 3: PENALTIES; FINES.** Section 15.04.110, titled “Penalties; Fines,” of Chapter 15.04, titled “General Provisions,” of Title 15, titled “Buildings and Construction,” of the Village Code is hereby amended to read as follows:

**“Section 15.04.110 Penalties; Fines.**

A. Fines for Violations. Except as provided in the Illinois Plumbing License Law, 225 ILCS 320/0.01 et seq., the Illinois Plumbing Code, 77 Ill. Admin. Code 890 et seq., and subsection B of this section, any person who violates any provision of this title shall be subject to a fine of not less than one

hundred dollars (\$100.00) nor more than seven hundred fifty dollars (\$750.00) for each violation, plus the cost of prosecution.

\*                      \*                      \*\*

SECTION 4: ADOPTION OF MODEL CODES BY REFERENCE. Section 15.08.010, titled “Adoption of Model Codes by Reference,” of Chapter 15.08, titled “Model Codes Adopted by Reference,” of Title 15, titled “Buildings and Construction,” of the Village Code is hereby amended to read as follows:

“Section 15.08.010 Adoption of Model Codes by Reference.

The model codes described in the following subsections A through I are each adopted by reference pursuant to the home rule authority of the Village of Winnetka under Article VII, Section 6 of the State of Illinois Constitution of 1970, and further pursuant to applicable provisions of the Illinois Municipal Code and the Municipal Adoption of Codes and Records Act, 50 ILCS 220/1 through 220/7, except as modified by the exclusions, amendments and additional provisions set forth in this chapter.

\*                      \*                      \*

E. Illinois Plumbing Code, 77 Ill. Admin. Code 890 et seq.

\*                      \*                      \*\*

SECTION 5: AMENDMENTS TO ~~THE STATE OF ILLINOIS PLUMBING CODE.~~ Section 15.08.060, titled “Amendments to the State of Illinois Plumbing Code, 2004 Edition,” of Chapter 15.08, titled “Model Codes Adopted ~~By~~ Reference,” of Title 15, titled “Buildings and Construction,” of the Village Code is hereby re-titled and amended to read as follows:

“Section 15.08.060 Amendments to the ~~State of~~ Illinois Plumbing Code, ~~2004 Edition.~~

A. Exclusions. The following provisions of the Illinois Plumbing Code, 77 Ill. Admin. Code 890 et seq., are excluded from adoption by the Village. Where a range of sections is listed, the exclusion includes all sections and subsections within the specified range.

\*                      \*                      \*

B Amendments. The following provisions of the Illinois Plumbing Code, 77 Ill. Admin. Code 890 et seq., are amended for adoption by the Village:

\*                      \*                      \*



Agency WaterSense Program), when such labeled fixtures ~~and controllers~~ are available.

\* \* \*

**SECTION 46:** **EFFECTIVE DATE.** This Ordinance shall be in full force and effect from and after its passage, approval, and publication in the manner provided by law.

[SIGNATURE PAGE FOLLOWS]

**PASSED** this \_\_ day of ~~July~~September, 2015, pursuant to the following roll call vote:

AYES: \_\_\_\_\_

NAYS: \_\_\_\_\_

ABSENT: \_\_\_\_\_

**APPROVED** this \_\_\_\_ day of \_\_\_\_\_, 2015.

Signed:

\_\_\_\_\_  
Village President

Countersigned:

\_\_\_\_\_  
Village Clerk

Published by authority of the  
President and Board of Trustees  
of the Village of Winnetka,  
Illinois, this \_\_ day of \_\_\_\_\_,  
2015.

Introduced: July 21, 2015

Passed and Approved: \_\_\_\_\_, 2015



## Agenda Item Executive Summary

**Title:** Ordinance No. M-18-2015: 525 Elm Street, Variations for the Construction and Use of a Detached Garage (Introduction / Adoption)

**Presenter:** Michael D'Onofrio, Director of Community Development

**Agenda Date:** 09/01/2015

- Ordinance
- Resolution
- Bid Authorization/Award
- Policy Direction
- Informational Only

**Consent:**  YES  NO

**Item History:**

None.

**Executive Summary:**

The request is for variations from Sections 17.30.060 [Side Yard Setback], 17.30.070 [Rear Yard Setback], and 17.30.110 [Garages] of the Winnetka Zoning Ordinance to permit the construction of a detached garage that would provide a side yard setback of 2.33 ft., whereas a minimum of 3 ft. is required, a variation of 0.67 ft. (22.33%) and a rear yard setback of 1.5 ft., whereas a minimum of 3 ft. is required, a variation of 1.5 ft. (50%).

The variations are being requested in order to replace an existing two car garage measuring approximately 20 ft. x 20 ft. with a three car garage that would measure 22 ft. x 33 ft. As represented on the attached zoning matrix, the existing garage does not comply with the minimum required 3 ft. setbacks from both the north (2.81 ft.) and west property lines. In fact, the existing garage encroaches 1.82 ft. onto the west neighbor's property. The proposed garage would provide a side yard setback of 2.33 ft. from the north property line and a rear yard setback of 1.5 ft. from the west property line.

The Zoning Board of Appeals considered the application at its meeting August 10, 2015. The five voting members present voted unanimously to recommend approval of the variation request.

**Recommendation:**

Consider introduction of Ordinance No. M-18-2015, granting variations from the setback regulations to allow the construction of a detached garage.

Or

Consider waiving introduction and adopting Ordinance No. M-18-2015, granting variations from the setback regulations to allow the construction of a detached garage.

**Attachments:**

- Agenda Report
- Attachment A: Zoning Matrix
- Attachment B: Ordinance No. M-18-2015
- Attachment C: GIS Aerial Map
- Attachment D: Variation Application
- Attachment E: Neighbor Letter

## AGENDA REPORT

**TO:** Village Council

**PREPARED BY:** Michael D'Onofrio, Director of Community Development

**SUBJECT:** 525 Elm St., Ord. M-18-2015  
(1) Side Yard Setback  
(2) Rear Yard Setback  
(3) Garages

**DATE:** August 26, 2015

Ordinance M-18-2015 grants variations from Sections 17.30.060 [Side Yard Setback], 17.30.070 [Rear Yard Setback], and 17.30.110 [Garages] of the Winnetka Zoning Ordinance to permit the construction of a detached garage that would provide a side yard setback of 2.33 ft., whereas a minimum of 3 ft. is required, a variation of 0.67 ft. (22.33%) and a rear yard setback of 1.5 ft., whereas a minimum of 3 ft. is required, a variation of 1.5 ft. (50%).

The variations are being requested in order to replace an existing two car garage measuring approximately 20 ft. x 20 ft. with a three car garage that would measure 22 ft. x 33 ft. As represented on the attached zoning matrix (Attachment A), the existing garage does not comply with the minimum required 3 ft. setbacks from both the north (2.81 ft.) and west property lines. In fact, the existing garage encroaches 1.82 ft. onto the west neighbor's property. The proposed garage would provide a side yard setback of 2.33 ft. from the north property line and a rear yard setback of 1.5 ft. from the west property line.

The property is located east of Sheridan Rd., at the "T" intersection of Elm St. and Hoyt Ln. in the R-2 Single Family Residential District.

The residence is circa 1893. Subsequent building permits were issued in 1940 to construct a one-story two car garage, in 1976 to remodel the kitchen, in 1984 to construct an addition and interior alterations to the residence, in 1991 to construct an addition and interior alterations to the residence, and in 2008 to remodel the kitchen. In 1991 and 2004 permits to replace the detached garage were issued, however, the projects were never brought to fruition. The petitioners acquired the property in 1983.

There are no previous zoning cases for this property.

### **Recommendation of Advisory Board**

The Zoning Board of Appeals considered the application at its meeting August 10, 2015. The five voting members present voted unanimously to recommend approval of the variation request.

### **Recommendation**

Consider introduction of Ord. M-18-2015, granting variations from the setback regulations to allow the construction of a detached garage.

525 Elm St.  
August 26, 2015  
Page 2 of 2

Or

Consider waiving introduction of Ord. M-18-2015 and consider adoption, granting variations from the setback regulations to allow the construction of a detached garage.

**Attachments**

Attachment A: Zoning Matrix  
Attachment B: Ordinance M-18-2015  
Attachment C: GIS Aerial Map  
Attachment D: Variation Application  
Attachment E: Neighbor Letter

## ATTACHMENT A

### ZONING MATRIX

**ADDRESS: 525 Elm St.**

**CASE NO: 15-19-V2**

**ZONING: R-2**

ITEM	REQUIREMENT	EXISTING	PROPOSED	TOTAL	STATUS
Min. Lot Size	25,200 SF	24,196 SF	N/A	N/A	EXISTING NONCONFORMING
Min. Average Lot Width	115 FT	79.85 FT	N/A	N/A	EXISTING NONCONFORMING
Max. Roofed Lot Coverage	6,049 SF (1)	3,918.82 SF	314.93 SF	4,233.75 SF	OK
Max. Gross Floor Area	7,380.08 SF (1)	5,591.49 SF	314.93 SF	5,906.42 SF	OK
Max. Impermeable Lot Coverage	12,098 SF (1)	5,222.23 SF	1,292.25 SF	6,514.48 SF	OK
Min. Front Yard (Lake/East)	50 FT	(+)50 FT	N/A	N/A	OK
Min. Corner (Front) Yard (Elm/South)	23.96 FT	56.55 FT (2)	55.46 FT (3)	N/A	OK
Min. Side Yard (North)	7.98 FT (4)	2.81 FT (5)	2.33 FT (3)	N/A	<b>0.67 FT (22.33%) VARIATION</b>
Min. Rear Yard (West)	25 FT (4)	(1.82) FT (6)	1.5 FT (3)	N/A	<b>1.5 FT (50%) VARIATION</b>

**NOTES:**

(1) Based on lot area of 24,196 s.f.

(2) Setback to existing detached garage. The residence is setback approximately 15.35 ft.

(3) Setback to proposed detached garage.

(4) 3 ft. setback is required for a detached garage located within the rear quarter of the lot.

(5) Setback to existing detached garage. The residence is setback 11.32 ft.

(6) Existing detached garage encroaches onto the neighboring property 1.82 ft.

# ATTACHMENT B

ORDINANCE NO. M-18-2015

**AN ORDINANCE GRANTING VARIATIONS  
FROM THE WINNETKA ZONING ORDINANCE  
FOR THE CONSTRUCTION OF A NEW GARAGE  
WITHIN THE R-2 SINGLE FAMILY ZONING DISTRICT  
(525 Elm Street)**

**WHEREAS**, Alan and Nancy Kubicka (collectively, "*Applicant*"), are the record title owners of the parcel of real property commonly known as 525 Elm Street in Winnetka, Illinois, and legally described in **Exhibit A** attached to and, by this reference, made a part of this Ordinance ("*Subject Property*"); and

**WHEREAS**, the Subject Property is improved with a single family residence ("*Building*") and a two-car garage ("*Existing Garage*"); and

**WHEREAS**, the Applicant desires to demolish the Existing Garage and construct on the Subject Property a new, three-car garage located in the side and rear yards adjacent to, and to the west of, the Building ("*Proposed Improvement*"); and

**WHEREAS**, the Subject Property is located within the R-2 Single Family Residential District of the Village ("*R-2 District*"); and

**WHEREAS**, pursuant to Sections 17.30.060 and 17.30.110 of the Winnetka Zoning Ordinance ("*Zoning Ordinance*"), the Proposed Improvement must have a side yard setback of at least three feet; and

**WHEREAS**, pursuant to Sections 17.30.070 and 17.30.110 of the Zoning Ordinance, the Proposed Improvement must have a rear yard setback of at least three feet; and

**WHEREAS**, the Applicant desires to construct the Proposed Improvement on the Subject Property: (i) with a side yard setback of 2.33 feet, in violation of Sections 17.30.060 and 17.30.110 of the Zoning Ordinance; and (ii) with a rear yard setback of 1.5 feet, in violation of Sections 17.30.070 and 17.30.110 of the Zoning Ordinance; and

**WHEREAS**, the Applicant filed an application for variations from: (i) Sections 17.30.060 and 17.30.110 of the Zoning Ordinance to permit the construction of the Proposed Improvement on the Subject Property with a side yard setback of 2.33 feet; and (ii) Sections 17.30.070 and 17.30.110 of the Zoning Ordinance to permit the construction of the Proposed Improvement on the Subject Property with a rear yard setback of 1.5 feet (collectively, "*Variations*"); and

**WHEREAS**, on August 10, 2015, after due notice thereof, the Zoning Board of Appeals ("*ZBA*") conducted a public hearing on the Variations and, by the unanimous vote of the five members then present, recommended that the Council of the Village of Winnetka ("*Village Council*") approve the Variations; and

**WHEREAS**, pursuant to Chapter 17.60 of the Zoning Ordinance, the ZBA heard evidence and made certain findings in support of recommending approval of the Variations, which findings are set forth in the ZBA public hearing minutes attached to and, by this reference, made a part of this Ordinance as **Exhibit B**; and

**WHEREAS**, pursuant to Section 17.60.050 of the Zoning Ordinance, the Village Council has determined that: (i) the Variations are in harmony with the general purpose and intent of the Zoning Ordinance and are in accordance with general or specific rules set forth in Chapter 17.60 of the Zoning Ordinance; and (ii) there are practical difficulties or particular hardships in the way of carrying out the strict letter of the provisions or regulations of the Zoning Ordinance from which the Variations have been sought; and

**WHEREAS**, the Village Council has determined that approval of the Variations for the construction of the Proposed Improvement on the Subject Property within the R-2 District is in the best interest of the Village and its residents;

**NOW, THEREFORE**, the Council of the Village of Winnetka do ordain as follows:

**SECTION 1: RECITALS.** The foregoing recitals are hereby incorporated into this section as the findings of the Village Council, as if fully set forth herein.

**SECTION 2: APPROVAL OF VARIATION.** Subject to, and contingent upon, the terms, conditions, restrictions, and provisions set forth in Section 3 of this Ordinance, the Variations from Sections 17.30.060, 17.30.070, and 17.30.110 of the Zoning Ordinance to permit the construction of the Proposed Improvement on the Subject Property are hereby granted, in accordance with and pursuant to Chapter 17.60 of the Zoning Ordinance and the home rule powers of the Village.

**SECTION 3: CONDITIONS.** The Variations granted by Section 2 of this Ordinance are subject to, and contingent upon, compliance by the Applicant with the following conditions:

- A. **Commencement of Construction.** The Applicant must commence the construction of the Proposed Improvement no later than 12 months after the effective date of this Ordinance.
- B. **Compliance with Regulations.** Except to the extent specifically provided otherwise in this Ordinance, the development, use, and maintenance of the Proposed Improvement and the Subject Property must comply at all times with all applicable Village codes and ordinances, as they have been or may be amended over time.
- C. **Reimbursement of Village Costs.** In addition to any other costs, payments, fees, charges, contributions, or dedications required under applicable Village codes, ordinances, resolutions, rules, or regulations, the Applicant must pay to the Village, promptly upon presentation of a written demand or demands therefor, of all fees, costs, and expenses incurred or accrued in connection with the review,

negotiation, preparation, consideration, and review of this Ordinance. Payment of all such fees, costs, and expenses for which demand has been made shall be made by a certified or cashier's check. Further, the Applicant must pay upon demand all costs incurred by the Village for publications and recordings required in connection with the aforesaid matters.

- D. Compliance with Plans. The development, use, and maintenance of the Proposed Improvement on the Subject Property must be in strict accordance with the following documents and plans, except for minor changes and site work approved by the Director of Community Development or the Director of Public Works (within their respective permitting authority) in accordance with all applicable Village codes, ordinances, and standards: the plans prepared by William Murphy Architect, Ltd., consisting of eight sheets, and dated July 8, 2015, a copy of which is attached to and, by this reference, made a part of this Ordinance as **Exhibit C**.

**SECTION 4: RECORDATION; BINDING EFFECT.** A copy of this Ordinance will be recorded with the Cook County Recorder of Deeds. This Ordinance and the privileges, obligations, and provisions contained herein inure solely to the benefit of, and are binding upon, the Applicant and each of its heirs, representatives, successors, and assigns.

**SECTION 5: FAILURE TO COMPLY.** Upon the failure or refusal of the Applicant to comply with any or all of the conditions, restrictions, or provisions of this Ordinance, in addition to all other remedies available to the Village, the approvals granted in Section 2 of this Ordinance will, at the sole discretion of the Village Council, by ordinance duly adopted, be revoked and become null and void; provided, however, that the Village Council may not so revoke the approvals granted in Section 2 of this Ordinance unless it first provides the Applicant with two months advance written notice of the reasons for revocation and an opportunity to be heard at a regular meeting of the Village Council. In the event of revocation, the development and use of the Subject Property will be governed solely by the regulations of the applicable zoning district and the applicable provisions of the Zoning Ordinance, as the same may, from time to time, be amended. Further, in the event of such revocation, the Village Manager and Village Attorney are hereby authorized and directed to bring such zoning enforcement action as may be appropriate under the circumstances.

**SECTION 6: AMENDMENTS.** Any amendment to this Ordinance may be granted only pursuant to the procedures, and subject to the standards and limitations, provided in the Zoning Ordinance for amending or granting variations.

**SECTION 7: SEVERABILITY.** If any provision of this Ordinance or part thereof is held invalid by a court of competent jurisdiction, the remaining provisions of this Ordinance shall remain in full force and effect, and shall be interpreted, applied, and enforced so as to achieve, as near as may be, the purpose and intent of this Ordinance to the greatest extent permitted by applicable law.

**SECTION 8: EFFECTIVE DATE.**

A. This Ordinance will be effective only upon the occurrence of all of the following events:

1. Passage by the Village Council in the manner required by law;
2. Publication in pamphlet form in the manner required by law; and
3. The filing by the Applicant with the Village Clerk of an Unconditional Agreement and Consent in the form of **Exhibit D** attached to and, by this reference, made a part of this Ordinance to accept and abide by each and all of the terms, conditions, and limitations set forth in this Ordinance and to indemnify the Village for any claims that may arise in connection with the approval of this Ordinance.

B. In the event that the Applicant does not file with the Village Clerk a fully executed copy of the unconditional agreement and consent described in Section 8.A.3 of this Ordinance within 60 days after the date of passage of this Ordinance by the Village Council, the Village Council shall have the right, in its sole discretion, to declare this Ordinance null and void and of no force or effect.

**PASSED** this \_\_\_\_ day of \_\_\_\_\_, 2015, pursuant to the following roll call vote:

AYES: \_\_\_\_\_

NAYS: \_\_\_\_\_

ABSENT: \_\_\_\_\_

**APPROVED** this \_\_\_\_ day of \_\_\_\_\_, 2015.

Signed:

\_\_\_\_\_  
Village President

Countersigned:

\_\_\_\_\_  
Village Clerk

Published by authority of the President and Board of Trustees of the Village of Winnetka, Illinois, this \_\_\_\_ day of \_\_\_\_\_, 2015.

Introduced: September 1, 2015

Passed and Approved: \_\_\_\_\_, 2015

**EXHIBIT A**

**LEGAL DESCRIPTION OF SUBJECT PROPERTY**

Lot 1 (except the Westerly 170 Feet only) in Owner's Resubdivision of Block 18 (except the Northerly 33 Feet) together with vacated Baldwin Place, lying within said Block 18 and accretions thereto in Winnetka, a subdivision of the Northeast Quarter of Section 20, and the North Half of Fractional Section 21, Township 42 North, Range 13, East of the Third Principal Meridian, in Cook County, Illinois.

Commonly known as 525 Elm Street, Winnetka, Illinois.

## EXHIBIT B

### PUBLIC HEARING MINUTES OF THE ZBA

#### WINNETKA ZONING BOARD OF APPEALS EXCERPT OF MINUTES AUGUST 10, 2015

**Zoning Board Members Present:** Joni Johnson, Chairperson  
Mary Hickey  
Thomas Kehoe  
Carl Lane  
Mark Naumann

**Zoning Board Members Absent:** Chris Blum

**Village Staff:** Michael D’Onofrio, Director of Community  
Development  
Ann Klaassen, Planning Assistant

**Agenda Items:**

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**Case No. 15-19-V2:** 525 Elm Street  
Alan and Nancy Kubicka  
Variation by Ordinance  
1. Side Yard Setback  
2. Rear Yard Setback  
3. Garages

**525 Elm Street, Case No. 15-19-V2, Alan and Nancy Kubicka, Variations by Ordinance: (1) Side Yard Setback, (2) Rear Yard Setback and (3) Garages**

Mr. D’Onofrio read the public notice. The purpose of this hearing is to hear testimony and receive public comment regarding a request by Alan and Nancy Kubicka concerning Variations by Ordinance from Sections 17.30.060 (Side Yard Setback), 17.30.070 (Rear Yard Setback) and 17.30.110 (Garages) of the Winnetka Zoning Ordinance to permit the construction of a detached garage that would provide a side yard setback of 2.33 feet, whereas a minimum of 3 feet is required, a variation of 0.67 feet (22.23%) and a rear yard setback of 1.5 feet, whereas a minimum of 3 feet is required, a variation of 1.5 feet (50%).

Chairperson Johnson swore in those that would be speaking on this case.

The applicants, Alan and Nancy Kubicka, introduced themselves to the Board, along with the architect, William Murphy.

Mr. Kubicka began by stating that they have a two car garage which he thought may have been built in the 1800’s but that he found information recently that indicated it was built in 1920. He informed the Board that the garage sat approximately 15 inches on their neighbor’s property to the west and that it is certainly less than the 3 foot easement on the neighbor’s property to the north. Mr. Kubicka also stated that the garage is leaning severely toward the west and that the concrete underneath is crumbling and breaking apart. He then stated that it is a two car garage that they can barely get two vehicles into and that they have three vehicles and desperately need a three car garage which is the reason for their request.

Mr. Kubicka stated that the concern is that the lot is a small lot and it is smaller than normally what is there today. He informed the Board that they have lived in the home for 38 years. Mr. Kubicka stated that they have an issue

with the size of the garage as well as the fact that they have a large oak tree in the front yard which he described as a signature to their home. Mr. Kubicka stated that they do not want to do anything which would cause the oak tree to die and that they want to try to fit the garage in as best as possible. He also stated that with the variation they are asking for, it would no longer encroach 15 inches onto the neighbors' property to the west and that it would be moved over approximately 3 feet. Mr. Kubicka added that it would also be moved over approximately 7 more inches onto their property relative to their neighbor to the north. He stated that the garage would be located more on their property on both sides.

Chairperson Johnson asked Mrs. Kubicka if she wanted to add anything.

Mrs. Kubicka commented that it would be nice to be able to put their garbage cans and recycling container inside of the garage which is currently now not the case. She described it as being a wonderful change along with the fact that they would be able to park all of their vehicles inside of the garage and have the garbage cans inside as well.

Chairperson Johnson stated that she wanted to applaud the applicants and described the home as an incredible home and referred to the fact that there are not many homes of this vintage left in Winnetka. She then stated that while she is not saying whether she would be in favor or not and that they would discuss it, she stated that they cannot typically say as to why the applicants would need a three car garage and that it did not relate to the property itself. Chairperson Johnson then stated that obviously, the garbage issue is something which would relate to the property itself and that the Board did not base their decisions on one particular need that the applicants have or particular situations.

Mr. Murphy informed the Board that there are other reasons for the request. He informed the Board that the proposed garage would be a three car garage instead of the existing two car garage and that it would be adjusted in its position to be located on the property. Mr. Murphy also stated that with regard to the design of the garage, which he realized is not a consideration of the Board and the overall context of why they are doing it is to say that somewhere in the design of the existing home and its characteristics, they would be continuing with the frame assembly and that it would have a shallowed out foundation. He described it all as part of the motivation of preserving a tree which is located in the applicants' front yard.

Mr. Murphy also stated that as they have considered different design layouts for the garage, one of which he identified is to rotate it 90 degrees and back the garage up to the westerly boundary with or without the setback discussion. He stated that all of those positions as well as the position of the tree on the lot, they would end up encroaching closer and that they would have to extend the driveway closer to the tree which they do not want to do. Mr. Murphy stated that they would like for the garage to be tucked back in the corner as it is and to try to find inches as best as they can and to stay furthest away from the tree as possible. He informed the Board that the tree has a diameter of approximately 2 ½ feet and that it is located approximately 12 feet toward the home along with the fact that it is symmetrical which he described as their benchmark with regard to the southeast corner of the garage as they positioned it there.

Mr. Murphy then stated that he would now speak to some of the considerations for the variations and stated that with regard to reasonable return, in that larger garages are permitted, up to four car garages, they are attempting to bring it up closer within the context of the district with a three car garage in lieu of a two car garage. He stated that presently, the extra car is in the same space as the garage that they are attempting to enclose and that it would accommodate that with a little bit of extra depth, as well as enclose the garbage.

Mr. Murphy stated that the plight of the applicants is unique in that the lot is a narrow lot within that district and that if it were a wider lot in another context, they would physically have more space to work with. He then stated that it is part of the zoning matrix.

Chairperson Johnson asked what is the lot size. She also asked if the lot width is approximately 1/3 under the requirement.

Mr. Murphy confirmed that is correct. He also stated that the lot size varied with the water level and that as of the most recent survey, he indicated that it is undersized when compared to the minimum required lot area.

Chairperson Johnson stated that the width issue affected their options.

Mr. Murphy agreed that it is limiting. He also described it as a moving target. Mr. Murphy then stated that the variation would not alter the essential character of the community and that it would maintain and preserve the character of the home and the nature of the home, in particular in the context of more recent homes in terms of style and commented that it is a special home. He described the home as an amenity to the community along with the trees which have been on the property as long as or longer than the home has been there.

Mr. Murphy stated that as far as light and air to the neighbors, he stated that in both cases, to the north and to the west, the north would be unaffected and that the ridge would remain the same within their height limits and that the pitch would be the same. He stated that the light into the space between the garage and the property line would not be affected. Mr. Murphy then stated that to the west, it would be significantly improved and that by the garage form and shape and gable which would allow the same amount of light in, it would be improved by virtue of having moved it over.

Mr. Murphy stated that the hazard from fire and other damages would not be increased and that the new garage would be made out of drywall material whereas the present garage is not. He also stated that it would be built soundly and on a sound foundation. Mr. Murphy then stated that the taxable value of the land throughout the Village would not be diminished and that it is a quality of home which has been here and would not take away.

Mr. Murphy went on to state that congestion in the street would not be increased and that it would still be a single family home. He then stated that the public health, comfort, morals, welfare and safety of the Village would not be impaired. Mr. Murphy concluded by stating that there would be no impact other than improvement to the neighbors.

Chairperson Johnson asked if there were any questions.

Mr. Naumann stated that he had a question with regard to construction and asked if the foundation would be re-laid for the entire garage.

Mr. Murphy responded that the existing garage may be just floating and that what he can see seasonally is that the slab on the interior, there is a crack from north to south. He stated that the new foundation would contain a design feature called grading (sp?) as opposed to a full thrust foundation which would be a reinforced foundation which would extend down approximately 2 feet rather than 3½ feet. Mr. Murphy noted that it would be a stable structure as opposed to the thin foundation. He also stated that it is an option because of the design style of the garage.

A Board Member questioned the variation and compliance.

Mr. Murphy stated that when they bring everything into compliance, they would be in another 18 inches closer to the tree. He informed the Board that they have had that discussion as to whether it would be worth it in terms of the process and whether it would be worth it in trying to save the tree. Mr. Murphy also stated that they contemplated other projects on this site over the last several years and that there are a couple of great trees which he described as being in the way. He stated that they are trying to stay away from the tree as best as they can.

Mr. Lane referred to the parking area along the side of the garage and asked if there is gravel in that location.

Mr. Murphy responded that it is pea gravel. He stated that it would be very close to the same as it is proposed and that there are places proximate to the tree where some of that gravel coverage would be restored back to lawn and that a walkway along the easterly edge of the garage would bring you up to the home.

Mr. Lane stated that when you are talking about the 18 inches, what Mr. Naumann was referring to was one of the setback requirements and the other one on the north side is larger.

Mr. Murphy stated that is because it slides on a bit of a diagonal. He then stated that it would be approximately 18 inches from the west in and another 8 inches from the north.

Mr. Lane stated that Mr. Murphy mentioned what is allowed and referred to what is normal and what is standard in the neighborhood. He asked Mr. Murphy what he considered is normal for the neighborhood.

Mr. Murphy stated that to the south on Hoyt, there are several new homes and that all of them have three car garages and maybe more.

Chairperson Johnson stated that some of the older homes on Hoyt have three car garages and stated that Jean Wright's home to the north has a three car garage.

Mr. Murphy stated that it would be consistent within that district.

Chairperson Johnson stated that she wanted to point out for purposes of discussion and that she looked up what the garage maximum was and that it is up to a four car garage. She then stated that in another district, if you were to put up a three car garage, you would not have a lot of room left for the home. Chairperson Johnson noted that it is allowed in terms of the maximum and that theoretically, everyone could have a three car garage or four car garage.

Mr. Lane stated that with regard to what is standard and when someone bought a home, you consider reasonable return and that they are not looking at how much you can make on the home, but what people expect when they buy a home in that neighborhood, which is a three car garage.

Ms. Hickey stated that she did not see where the applicants considered the southwest corner near Elm and that there may be some evergreen shrubs in that area.

Mr. Murphy stated that along the parkway there are some large trees there, one of which recently came down or a portion of it. He stated that location is right along the edge of the driveway. Mr. Murphy then stated that the distance from the rear of the property back out to that tree if they were to turn the garage. He then stated that if they were to move the garage diagrammatically, it did not get better and that they would have ended up with more coverage. Mr. Murphy stated that the tree would be dead center and that as the garage is turned and oriented, it would be easier to have it at the rear of the property as opposed to turning in and driving into that scenario.

Chairperson Johnson asked if there is a gazebo on the neighbors' property to the west.

Mr. Murphy confirmed that is correct and that it is a masonry gazebo.

Chairperson Johnson asked Mr. D'Onofrio if the applicants would not get the garage bonus.

Ms. Klaassen confirmed that they would get the 400 square foot GFA allowance.

Chairperson Johnson stated that there is not a GFA issue here. She asked if there were any other questions.

Ms. Hickey asked if the fence would come down.

Mr. Murphy responded that with regard to the fence to the west, it would be taken down and put back up in the same location. He noted that it is on the property line now. Mr. Murphy then stated that with regard to the fence to the north, it would be taken down due to its condition and that there is also landscaping in that area.

Ms. Hickey then asked in moving the garage to the south, if the overhang would be eliminated.

Mrs. Kubicka confirmed that there is no overhang.

Mr. Murphy stated that the overhangs would be fully eliminated. He then stated that on the westerly side, with regard to inches here and there, they wanted to keep the overhang on both gable sides and that they set back the garage to allow for construction as well as to keep the overhang which he described as a feature on the home.

Chairperson Johnson stated that in 2004, the applicants received a permit for a new garage.

Mr. Kubicka stated that they did receive a permit, and in the 1990's as well. He then stated that with regard to the first permit, they had been under construction for 18 months and that they wanted to get it over with. Mr. Kubicka stated that if they were to continue with the garage, it would have resulted in more months of construction and that they decided to deal with it later. He then informed the Board that the second time around, it was for a much more elaborate garage and that after they thought about it some more, they decided that they did not want to do it that way and that it was not the design that they wanted. Mr. Kubicka stated that this time, they simplified it greatly when compared to what they had before. He described the features of the previous garage proposal which contained an underground level and referred to the small size of the lot. Mr. Kubicka reiterated that they decided to let that lapse.

Chairperson Johnson asked if there were any other questions. No additional questions were raised by the Board at this time. She then called the matter in for discussion.

Mr. Lane stated that he had an additional question and stated that the applicants stated that they would like to have a three car garage and referred to their attempt to preserve the tree to some extent. He stated that the Board's standards did not say to save trees which he indicated is a good idea. Mr. Lane asked if there was a two car garage and a covered parking area, would they need the same foundation approaching the tree that they are concerned about.

Mr. Murphy responded that it would at least have the same cornering structure and added that as a matter of the benefit to the tree, he referred to working on the corner which is nearest to the tree anyway. He indicated that while there may be less foundation, the extent of the paving and all of the rest of the items involved would have the same impact. Mr. Murphy then stated that if they were to replace the third bay with a carport and reduce it down to two columns on the easterly side and extend the roof, that foundation would certainly have to be below the frost level and that they would not be able to approach it in the same way that they would with this proposal. He described them as independent things and that you would want to have everything grounded. Mr. Murphy then stated that his hunch is that it would be a wash in that there would be the benefit in the reduction of coverage, although there are other issues.

Chairperson Johnson asked if there were any other questions.

Mr. Murphy stated that he would also like to add that the applicants reached out to the neighbors and that there is at least one letter in the packet of materials for the Board's consideration.

Chairperson Johnson referred to the letter received from the neighbors to the west.

Mrs. Kubicka informed the Board that she spoke with Jean Wright and they were in approval and asked if there was anything she could do. Mrs. Kubicka stated that she asked her if she could call in and that Ms. Wright is busy but that she is in favor of the project.

Chairperson Johnson stated that to start, she would like to frame the discussion a little and that obviously, the applicants can have a two car garage which would not need a variance. Chairperson Johnson stated that it is being driven by the fact that they want a three car garage and stated that she is a little reluctant depending on how the rest of the Board members felt in terms of findings from a recommending body for them to say that there is a hardship with not having a three car garage. She then stated that hopefully she would hear another analysis where the Board can recommend in favor of the request without stating that the lack of a three car garage created hardship.

Ms. Hickey stated that she is in favor of the request and that she would make the strong argument that in the neighborhood, it is standard to have a three car garage. She then referred to the prestige and uniqueness of the property and stated that there has been a great effort in protecting a very special tree which she commented is important. Ms. Hickey also stated that there was a comment made in the paperwork that some of the alternatives would have increased the amount of stress and that this design did not increase it as much as some of the alternatives. She then referred to the fact that the current garage is existing nonconforming and that while the proposed garage would also be nonconforming, this would be a real advantage. Ms. Hickey added that it may also solve issues down the road for the neighbors. She concluded by reiterating that she would be in favor of the request.

Mr. Kehoe stated that he too is in favor of the request and referred to involvement in property line encroachments and litigation. He then stated that the proposed location would not be a matter for them and that it would be cleared up.

Mr. Naumann stated that he is in support of the request and referred to neighborhood norms. He then stated that there are obviously some subjective factors and that they cannot consider them. Mr. Naumann referred to the third bay and the discussion. He also stated that the plan has been well thought out.

Chairperson Johnson referred to the guidelines which were given to the applicants in the application form and to which she sent Mr. Naumann a copy when he first joined the Board. She stated that while it was not directly on point, she referred to no. 4 which referred to a nonconforming location as preferable from a Village policy standpoint; for example, a conforming location will require removal of significant trees that are protected under the Village's Tree Ordinance. Chairperson Johnson stated that the issue is that the applicants have a two car garage but they want a three car garage. She then stated that the Board has had many garage cases before Mr. Naumann joined the Board and referred to a case relating to a two car garage and that there was a vote by a Village Council member who voted against it. Chairperson Johnson noted that it was in the R-2 district. She also stated that every property in Winnetka is unique and agreed that trees are important under their code.

Mr. Lane stated that the evidence is fairly strong that three car garages are the standard in that area. He then stated that when he thought about reasonable return, he agreed with the standards and referred to whether a variance can be granted because the applicants have a big tree. Mr. Lane also stated that it comes down to a balance to some extent because if they did not have the tree and they wanted a three car garage, the home would not have a beautiful tree and that there is a return in that and referred to the yard and the fact that it is something that people would pay for. He stated that it comes down to a two car garage versus a three car garage which would allow them to keep the tree which has some value to it.

Mr. Lane stated that with regard to those balance factors, the evidence of three car garages is standard there and is strong enough to persuade him that the reasonable return could be a three car garage versus areas where there is more of a mix where there are homes with a mix in the amount of garages whereas on that side of Sheridan Road, the expectation is for a three car garage. He stated that to him, it comes down to the fact that clearly, the lot is narrower and that you see properties which have been subdivided on that side and ending up with two corner lots which would have a driveway cutting through and you end up with these circumstances. Mr. Lane stated that this would be less of an issue than they have seen in other cases where the lots were divided up horribly.

Mr. Lane then stated that they have a narrow lot which is a consideration as well as the fact that being on the bluff to the extent it related to where they could put the garage on the lot and limited their options significantly. He also stated that similar to some of the corner lot situations, he referred to the bluff as the same situation and stated that to him, the unique circumstance is the bluff and the lot being somewhat narrow and taking all of that into consideration, the variance is fairly small as a whole. Mr. Lane stated that he would be in favor of the request and referred to the standards which have been satisfied.

Chairperson Johnson referred to when a corner lot would come into play.

Mr. D'Onofrio stated that it is because of the lake. He then stated that the lake is always considered a front yard.

Chairperson Johnson asked if it were not a corner lot, it would still need a variance.

Mr. D'Onofrio confirmed that is correct.

Chairperson Johnson then stated that she agreed with everything that has been said. She then stated that she would add that this is a unique and special home because of its age and its beauty and that it would be worse if they could not have a three car garage and that the mansions which are built across the street from them can. Chairperson Johnson commented that the value is subjective and that it is something that overall in the principles in the zoning code talk about with regard to preservation and architectural heritage.

Chairperson Johnson also stated that she would like to point out as they discussed that it is significantly under the allowable GFA, the RLC and the impermeable surface is approximately half of what the code allowed. She stated that in terms of equity, it is a combination of the fact that it is a de minimus variance and that they would be bringing the garage off of the neighbors' property. Chairperson Johnson then asked for a motion and noted that the Board is a recommending body.

Ms. Hickey stated that she would like to make a proposal that the Board find in favor of the variations requested and recommend approval of the variations for 525 Elm. She stated that the property cannot yield a reasonable return if permitted only to be used under the current conditions and that as the Board has discussed, they feel that in this neighborhood, there is a standard of a three car garage fitting with the location and size of the homes. Ms. Hickey stated that with regard to a garage on this property, there is an expectation of at least a three car garage.

Ms. Hickey stated that the plight of the applicants is due to unique circumstances such that the circumstances must be associated with the character of the property and not related to the applicants. She stated that they have discussed that the lot is narrow and is being considered as a corner lot and is a lakefront property with a front yard limiting locations for this detached garage. Ms. Hickey also stated that there is a significant tree which is also determining where the location of the garage has to be and that the existing garage's location is overhanging on the neighbor to the west. She then stated that the design and location of the garage would fit onto the applicants' property.

Ms. Hickey stated that the variation would not alter the essential character of the locality and that the supply of light and air to adjacent properties would not be impaired. She stated that the hazard from fire and damages to the property would not be increased and that the taxable value of the land would not diminish. Ms. Hickey concluded by stating that congestion would not increase and that the public health, safety, comfort, morals and welfare of the Village will not be otherwise impaired.

The motion was seconded by Mr. Lane. A vote was taken and the motion was unanimously passed, 5 to 0.

AYES: Hickey, Johnson, Kehoe, Lane, Naumann

NAYS: None

#### **FINDINGS OF THE ZONING BOARD OF APPEALS**

1. The requested variations are within the final jurisdiction of the Zoning Board of Appeals or the Village Council.
2. The requested variations are in harmony with the general purpose and intent of the Winnetka Zoning Ordinance. The proposal is compatible, in general, with the character of existing development within the immediate neighborhood with respect to architectural scale and other site improvements.
3. There are practical difficulties or a particular hardship which prevents strict application of Sections 17.30.060, 17.30.070 and 17.30.110 of the Winnetka Zoning Ordinance which is related to the use or the construction or alteration of buildings or structures.

The evidence in the judgment of the Zoning Board of Appeals has established:

1. The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by regulations in that zone. The standard garage capacity in this particular neighborhood, as well as on lakefront properties, is for three cars.
2. The plight of the owner is due to unique circumstances. Such circumstances must be associated with the characteristics of the property in question, rather than being related to the occupants. The lot is a narrow corner lakefront property, which limits possible locations for a detached garage. Additionally, the existing garage encroaches onto the neighboring property to the west and the proposed garage will eliminate that encroachment.

3. The variations, if granted, will not alter the essential character of the locality. The proposed garage is consistent with the locality; it is detached and located in the rear corner of the lot, backed up to the north neighbors' garage.
4. An adequate supply of light and air to the adjacent property will not be impaired. Light and air to the north (neighbors' garage) will remain as it is currently, by the gable roof design. Light and air to the west (a pavilion) will be significantly improved by the new location of the proposed garage, and unimpaired by the gable design.
5. The hazard from fire or other damages to the property will not be increased as the proposed improvement shall comply with building code standards, including fire and life safety requirements.
6. The taxable value of the land and buildings throughout the Village will not diminish. The taxable value should be improved with the proposed project, with the preservation of a large oak tree, preservation of the historical detached garage pattern, and with the proposed garage size closer to that of the zoning district.
7. The congestion in the public street will not increase. The structure will continue to be used as a single-family residence.
8. The public health, safety, comfort, morals and welfare of the inhabitants of the Village will not otherwise be impaired. There will be no change to the public health, safety, comfort, morals, and welfare of the inhabitants of the Village with the proposed garage or setbacks, other than the improvements for the west neighbor.

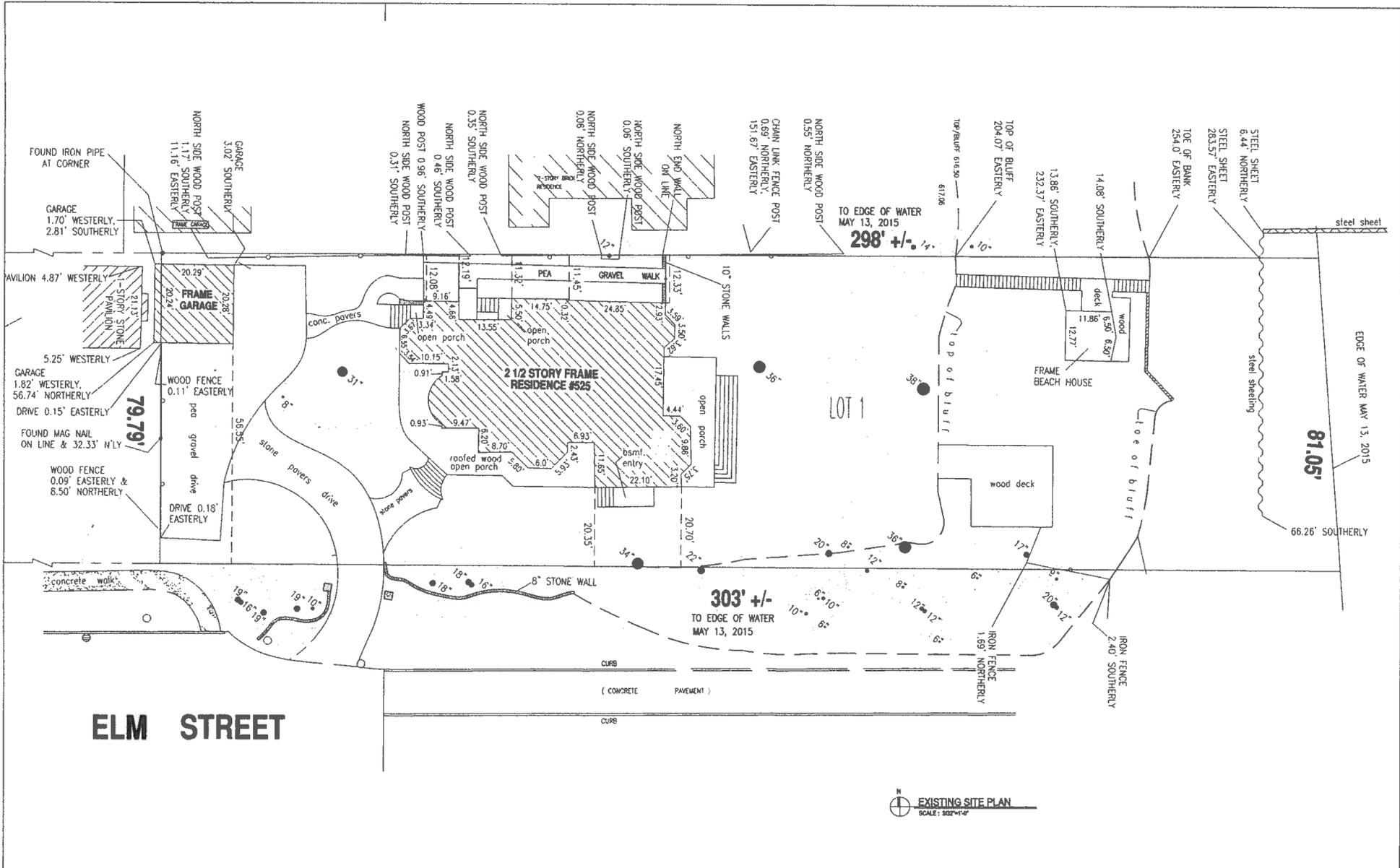
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**EXHIBIT C**

**PLANS**

**(SEE ATTACHED EXHIBIT C)**

# EXHIBIT C

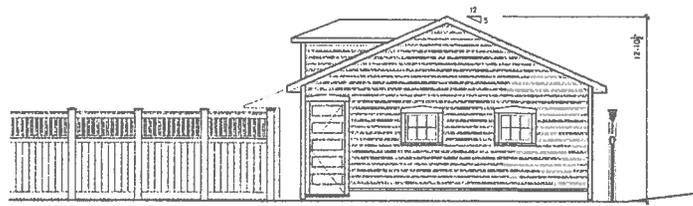


**WILLIAM MURPHY ARCHITECT, L.T.D.**  
42015  
410 South Michigan Avenue Suite #113  
Chicago, Illinois 60605 T: 312.461.9442  
WWW.BYVAADLLIQUOR.COM

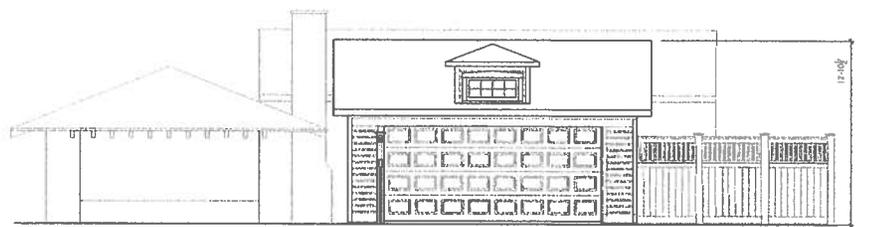
William C. Murphy, Jr.  
Illinois License No. 001-012908 Expiration Date: 11.30.16  
Date: \_\_\_\_\_  
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed professional engineer in the State of Illinois.

**KUBICKA RESIDENCE GARAGE REPLACEMENT**  
525 Elm Street  
Winnetka, Illinois

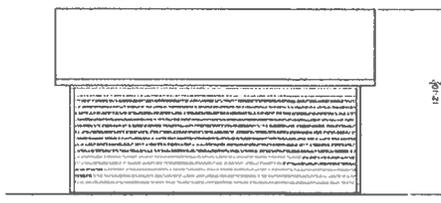
PROJECT NUMBER	3099.16
EXISTING SITE PLAN	
<b>A.2</b>	
SHEET NUMBER	
07.08.2015	ISSUE FOR ZONING VARIANCE APPLICATION



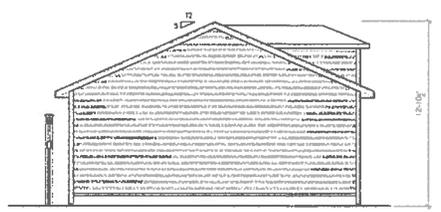
EXISTING GARAGE EAST ELEVATION  
SCALE: 1/4\"/>



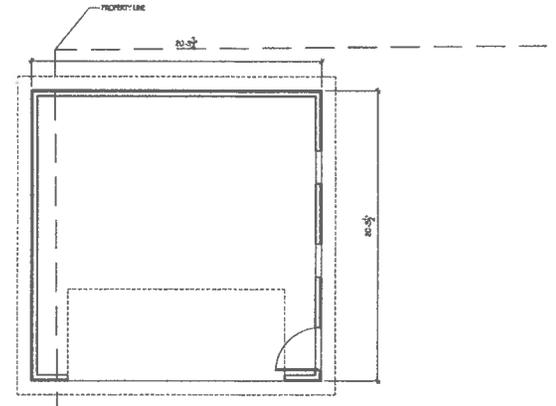
EXISTING GARAGE SOUTH ELEVATION  
SCALE: 1/4\"/>



EXISTING GARAGE NORTH ELEVATION  
SCALE: 1/4\"/>



EXISTING GARAGE WEST ELEVATION  
SCALE: 1/4\"/>



EXISTING GARAGE PLAN  
SCALE: 1/4\"/>

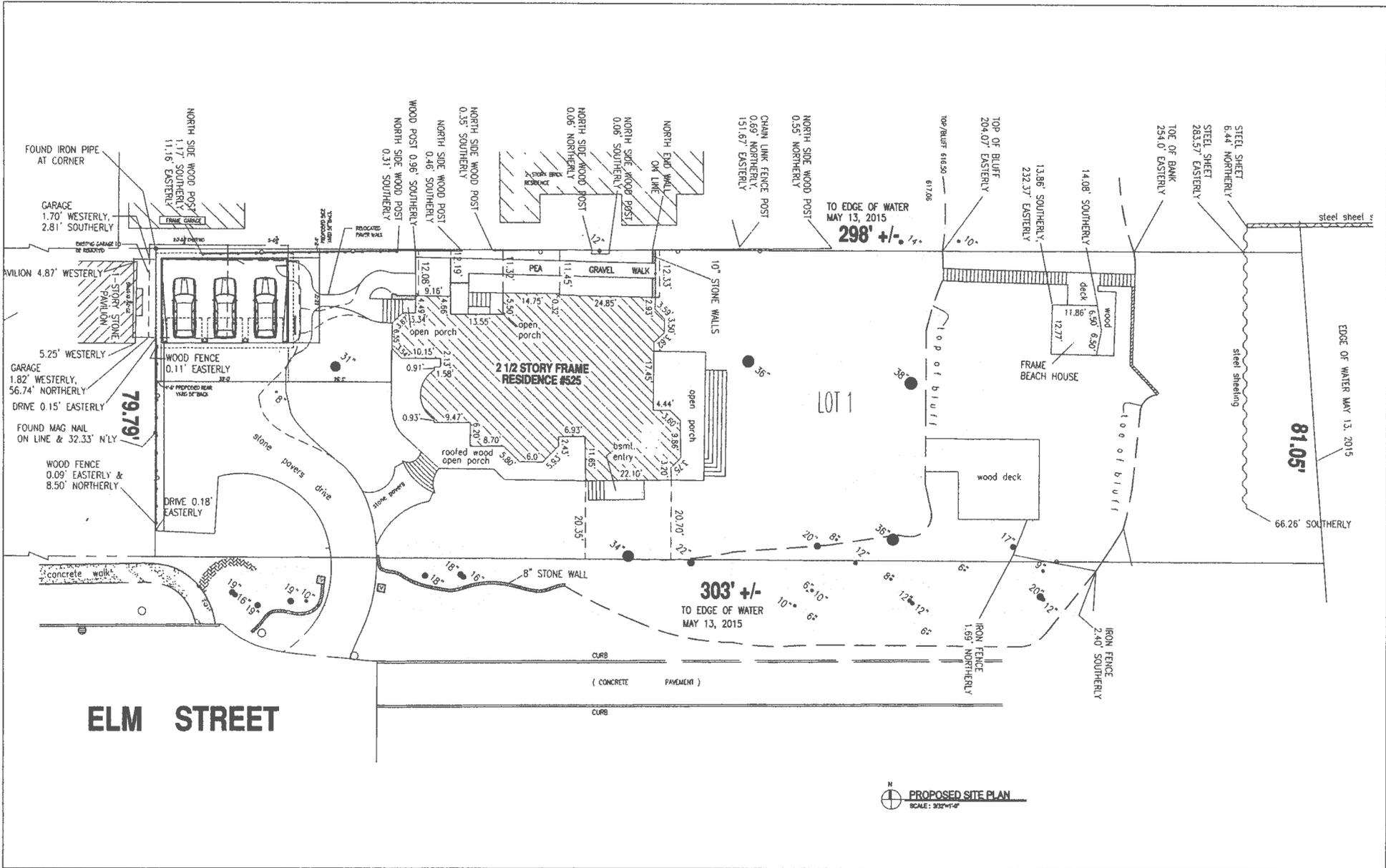
WILLIAM MURPHY  
ARCHITECT, LTD.  
© 2015  
410 South Michigan Avenue Suite 413  
Chicago, Illinois 60605 Tel: 312.461.9442  
WWW.WMARCHITECTS.COM

William C. Murphy, Jr. Date  
Illinois License No. 001-012908 Expiration Date: 11.30.16  
I am not responsible for any errors or omissions in this document which may result from the use of information obtained from any source other than that provided by the client.

KUBICKA RESIDENCE GARAGE REPLACEMENT  
525 Elm Street  
Winnetka, Illinois

07.08.2015	ISSUE FOR ZONING VARIANCE APPLICATION
------------	---------------------------------------

PROJECT NUMBER 2008.14  
EXISTING GARAGE  
**A.3**  
SHEET NUMBER



**ELM STREET**

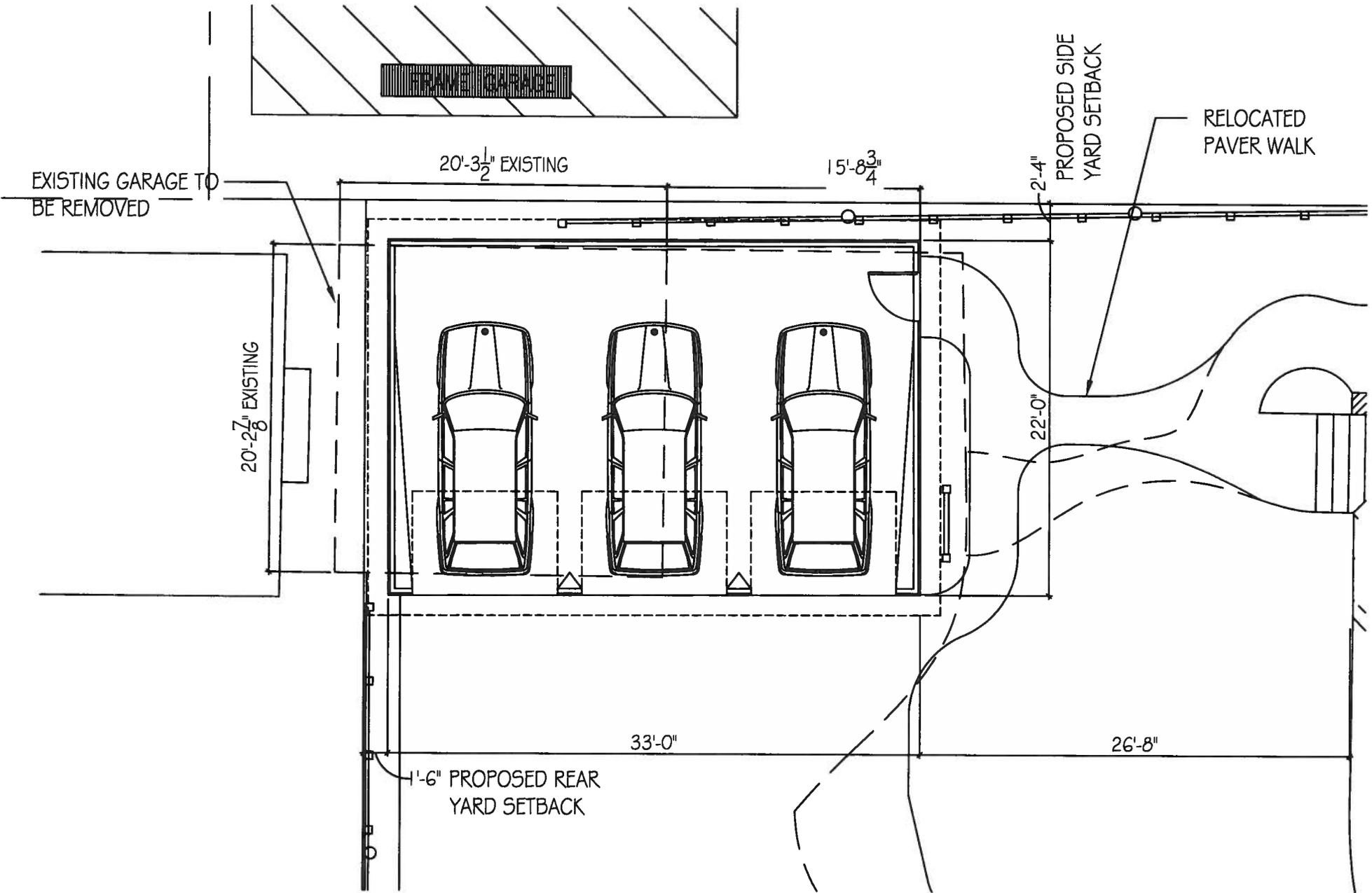
**PROPOSED SITE PLAN**  
SCALE: 3/32"=1'-0"

**WILLIAM MURPHY ARCHITECT, LTD.**  
c. 8815  
416 South Michigan Avenue, Suite 813  
Chicago, Illinois 60605 773.312.6194  
WWW.PRYORARCHITECTS.COM

**William C. Murphy, Jr.**  
Date: \_\_\_\_\_  
Illinois License No. 001-012808 Expiration Date: 11.30.16  
I hereby certify that I am a duly licensed professional architect in the State of Illinois and that I am the author of the design and construction documents herein.

**KUBICKA RESIDENCE GARAGE REPLACEMENT**  
**525 Elm Street**  
**Winnetka, Illinois**

PROJECT NUMBER	2009.16
PROPOSED SITE PLAN	
<b>A.4</b>	
SHEET NUMBER	
07.08.2015	ISSUE FOR ZONING VARIANCE APPLICATION

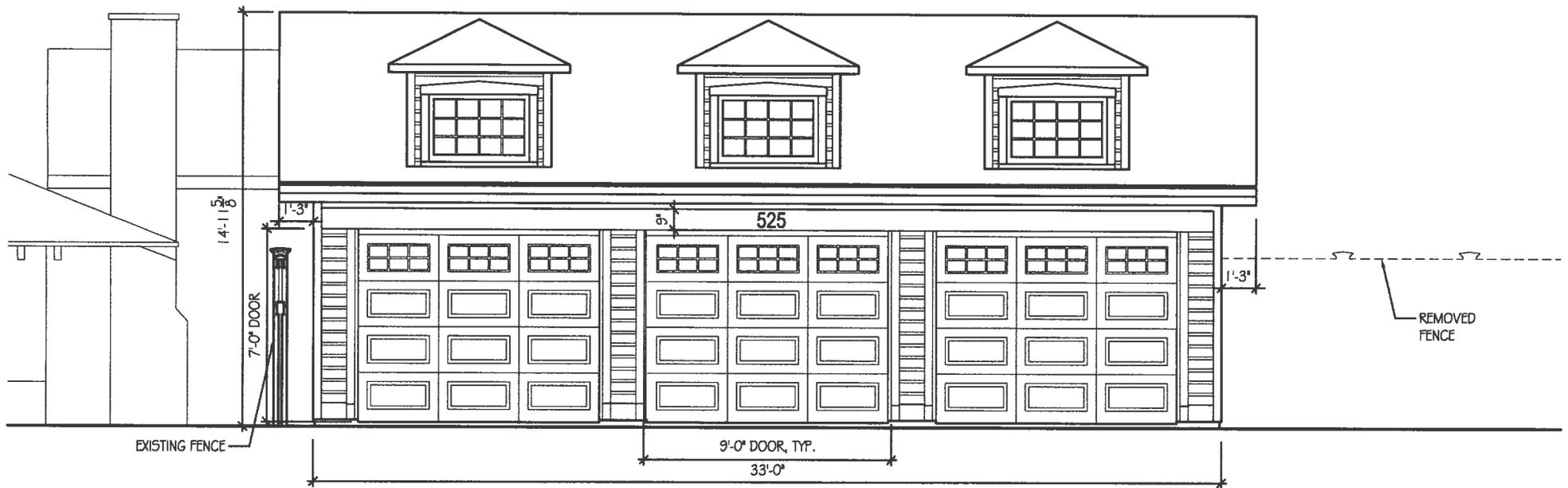


PROPOSED GARAGE SITE



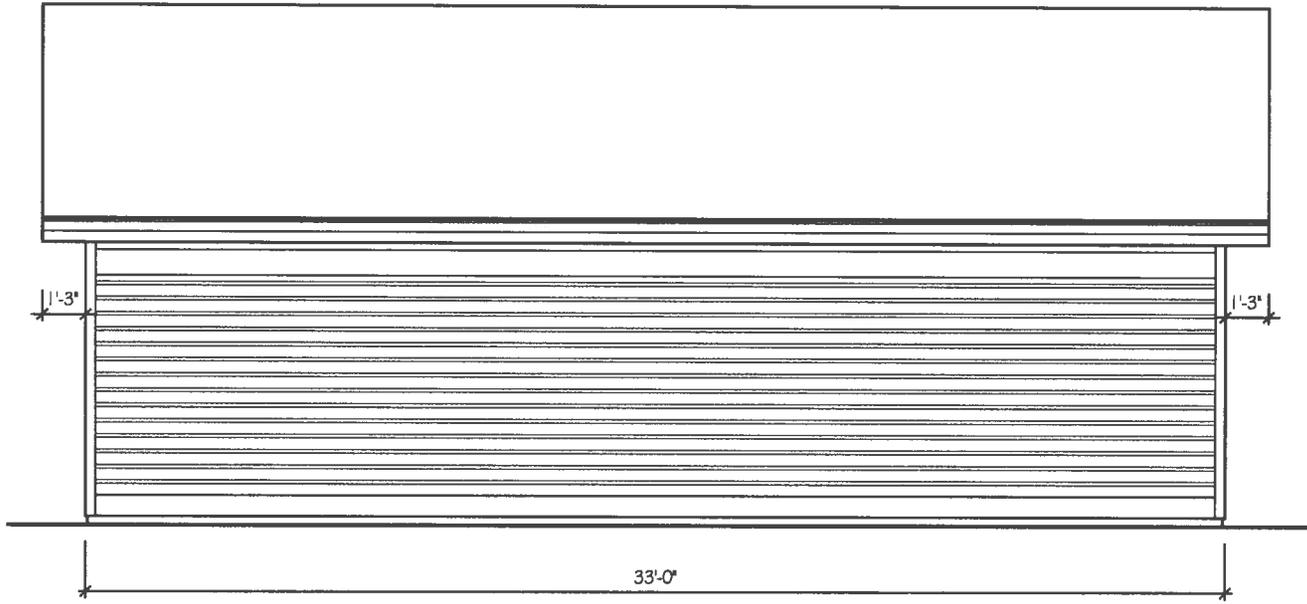
**KUBICKA RESIDENCE - PROPOSED**  
 WILLIAM MURPHY ARCHITECT, LTD. 2015.07.14  
 SCALE: 1/8" = 1'-0"





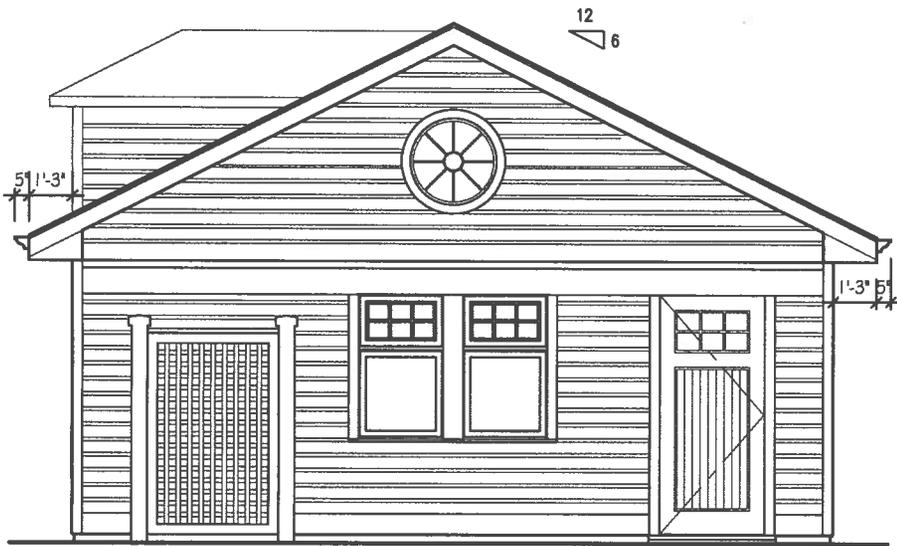
PROPOSED SOUTH ELEVATION

KUBICKA RESIDENCE - PROPOSED  
 WILLIAM MURPHY ARCHITECT, LTD. 2015.07.14  
 SCALE:  $\frac{3}{8}" = 1'-0"$

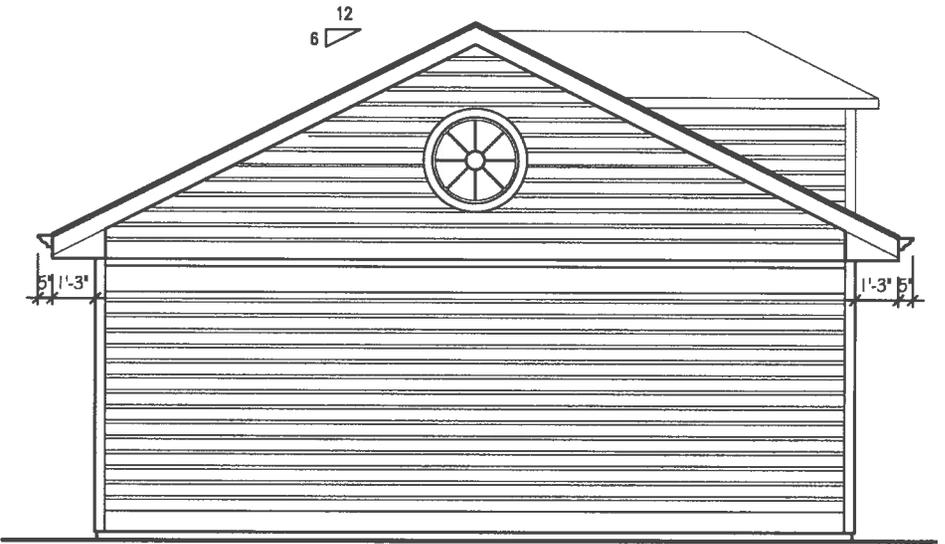


PROPOSED NORTH ELEVATION

KUBICKA RESIDENCE - PROPOSED  
WILLIAM MURPHY ARCHITECT, LTD. 2015.07.14  
SCALE:  $\frac{3}{16}" = 1'-0"$



PROPOSED EAST ELEVATION



PROPOSED WEST ELEVATION

KUBICKA RESIDENCE - PROPOSED  
 WILLIAM MURPHY ARCHITECT, LTD. 2015.07.14  
 SCALE:  $\frac{3}{16}'' = 1'-0''$

**EXHIBIT D**

**UNCONDITIONAL AGREEMENT AND CONSENT**

TO: The Village of Winnetka, Illinois ("*Village*"):

**WHEREAS**, Alan and Nancy Kubicka (collectively, "*Applicant*"), is the record title owner of the property commonly known as 525 Elm Street in the Village ("*Subject Property*")

**WHEREAS**, the Applicant desires to construct on the Subject Property a new garage located in the side and rear yards adjacent to, and to the west of, the residence; and

**WHEREAS**, Ordinance No. M-18-2015, adopted by the Village Council on \_\_\_\_\_, 2015 ("*Ordinance*"), grants variations from the provisions of the Winnetka Zoning Ordinance to the Applicant to permit the construction of the attached garage on the Subject Property with a side yard setback of 2.33 feet, where a setback of at least three feet is required, and a rear yard setback of 1.5 feet, where a rear yard setback of at least three feet is required; and

**WHEREAS**, Section 8 of the Ordinance provides, among other things, that the Ordinance will be of no force or effect unless and until the Applicant has filed, within 60 days following the passage of the Ordinance, its unconditional agreement and consent to accept and abide by each and all of the terms, conditions, and limitations set forth in the Ordinance;

**NOW, THEREFORE**, the Applicant does hereby agree and covenant as follows:

1. The Applicant does hereby unconditionally agree to accept, consent to, and abide by each and all of the terms, conditions, limitations, restrictions, and provisions of the Ordinance.
2. The Applicant acknowledges that public notices and hearings have been properly given and held with respect to the adoption of the Ordinance, has considered the possibility of the revocation provided for in the Ordinance, and agrees not to challenge any such revocation on the grounds of any procedural infirmity or a denial of any procedural right.
3. The Applicant acknowledges and agrees that the Village is not and will not be, in any way, liable for any damages or injuries that may be sustained as a result of the Village's grant of the variations for the Subject Property or its adoption of the Ordinance, and that the Village's approvals do not, and will not, in any way, be deemed to insure the Applicant against damage or injury of any kind and at any time.
4. The Applicant does hereby agree to hold harmless and indemnify the Village, the Village's corporate authorities, and all Village elected and appointed officials, officers, employees, agents, representatives, and attorneys, from any and all claims that may, at any time, be asserted against any of such parties in connection with the Village's adoption of the Ordinance granting the variations for the Subject Property.

5. The Applicant hereby agrees to pay all expenses incurred by the Village in defending itself with regard to any and all of the claims mentioned in this Unconditional Agreement and Consent. These expenses will include all out-of-pocket expenses, such as attorneys' and experts' fees, and will also include the reasonable value of any services rendered by any employees of the Village.

Dated: \_\_\_\_\_, 2015

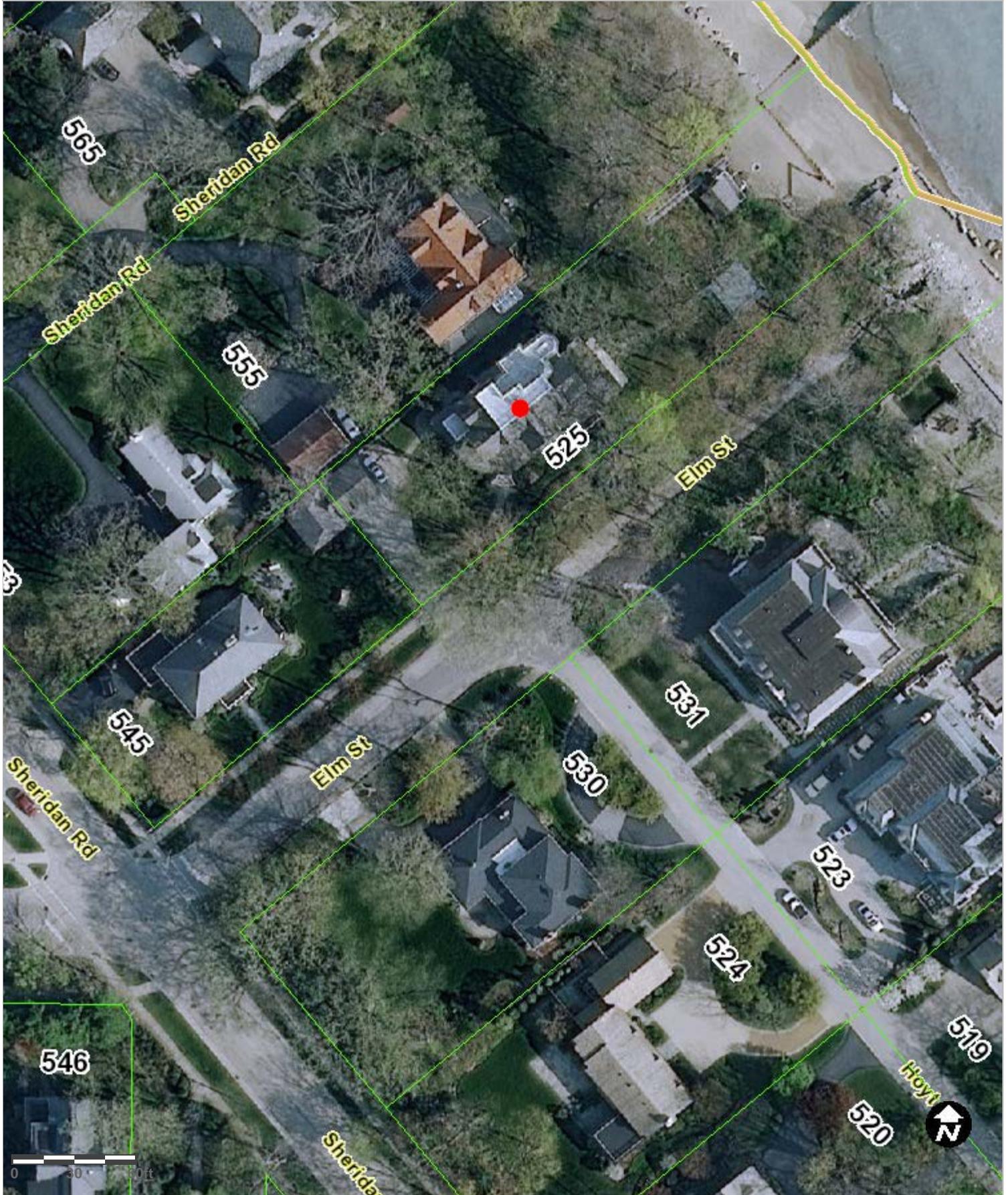
ATTEST: **ALAN KUBICKA**

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

ATTEST: **NANCY KUBICKA**

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

# ATTACHMENT C



ATTACHMENT D

CASE NO. 15-19-V2

APPLICATION FOR VARIATION  
WINNETKA ZONING BOARD OF APPEALS

RECEIVED  
JUL - 8 2015  
BY: \_\_\_\_\_

Owner Information:

Name: Alan & Nancy Kubicka

Property Address: 525 Elm Street

Home and Work Telephone Number: [REDACTED]

Fax and E-mail: [REDACTED]

Architect Information: Name, Address, Telephone, Fax & E-mail:

WILLIAM MURPHY ARCHITECT, LTD. T: 312.461.9442

410 SOUTH MICHIGAN AVENUE SUITE 813

CHICAGO, IL 60605 EMAIL: WMURPHYARCH@MSN.COM

Attorney Information: Name, Address, Telephone, Fax & E-mail:

Jerry Tenner Phone: 312-873-2266

300 South Wacker Drive, Suite 1700 Fax: 312-873-2267

Chicago, IL 60606

Date Property Acquired by Owner: August 1983

Nature of Any Restrictions on Property: None

Explanation of Variation Requested: REAR AND SIDE YARD VARIATION.  
(Attach separate sheet if necessary)

SEPERATE SHEET ATTACHED

VA2015-591

OFFICE USE ONLY

Variation Requested Under Ordinance Section(s): \_\_\_\_\_

Staff Contact: \_\_\_\_\_ Date: \_\_\_\_\_

## STANDARDS FOR GRANTING OF ZONING VARIATIONS

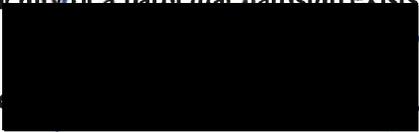
Applications must provide evidence and explain in detail the manner wherein the strict application of the provisions of the zoning regulations would result in a clearly demonstrated practical difficulty or particular hardship. In demonstrating the existence of a particular difficulty or a particular hardship, please direct your comments and evidence to each of the following items:

1. The property in question can not yield a reasonable return if permitted to be used only under the conditions allowed by regulations in that zone.
2. The plight of the owner is due to unique circumstance. Such circumstances must be associated with the characteristics of the property in question, rather than being related to the occupants.
3. The variation, if granted, will not alter the essential character of the locality.
4. An adequate supply of light and air to the adjacent property will not be impaired.
5. The hazard from fire and other damages to the property will not be increased.
6. The taxable value of the land and buildings throughout the Village will not diminish.
7. The congestion in the public street will not increase.
8. The public health, safety, comfort, morals, and welfare of the inhabitants of the Village will not otherwise be impaired.

For your convenience, you will find attached examples of general findings, for and against the granting of a variation, which have been made by the Zoning Board of Appeals and Village Council in prior cases.

**NOTE:** The Zoning Board of Appeals or the Village Council, depending on which body has final jurisdiction, must make a finding that a practical difficulty or a particular hardship exists in order to grant a variation request.

Property Owner's Signature

 7/8/2015

(Proof of Ownership is required)

**Variations, if granted, require initiation of construction activity within 12 months of final approval. Consider your ability to commence construction within this 12 month time period to avoid lapse of approvals.**

WILLIAM MURPHY  
ARCHITECT, LTD.

Application for Zoning Variation

July 8, 2015

Kubicka Residence Garage Replacement  
525 Elm Street  
Winnetka, Illinois 60093

Introduction of Proposed Project:

The project is for the removal of an existing 2-car 1-story frame garage, and replacement with a new 3-car 1-story frame garage. The proposed new wood siding & trim, asphalt shingle roof with dormers is designed to be very similar to the existing garage style. A comfortable companion to the original home, and nestled into a beautiful site with mature trees.

The existing garage extends approximately 22" beyond the west property line, into the neighbors lot. The proposed new garage is positioned fully on the 525 Elm property. The Variation seeks relief from the Rear Setback requirement (2'-4" rather than 3'-0") and Side Setback requirement (1'-6" rather than 3'-0"), to allow for the proposed new garage and best clearance from an existing large oak tree.

Standards for Granting of Zoning Variation:

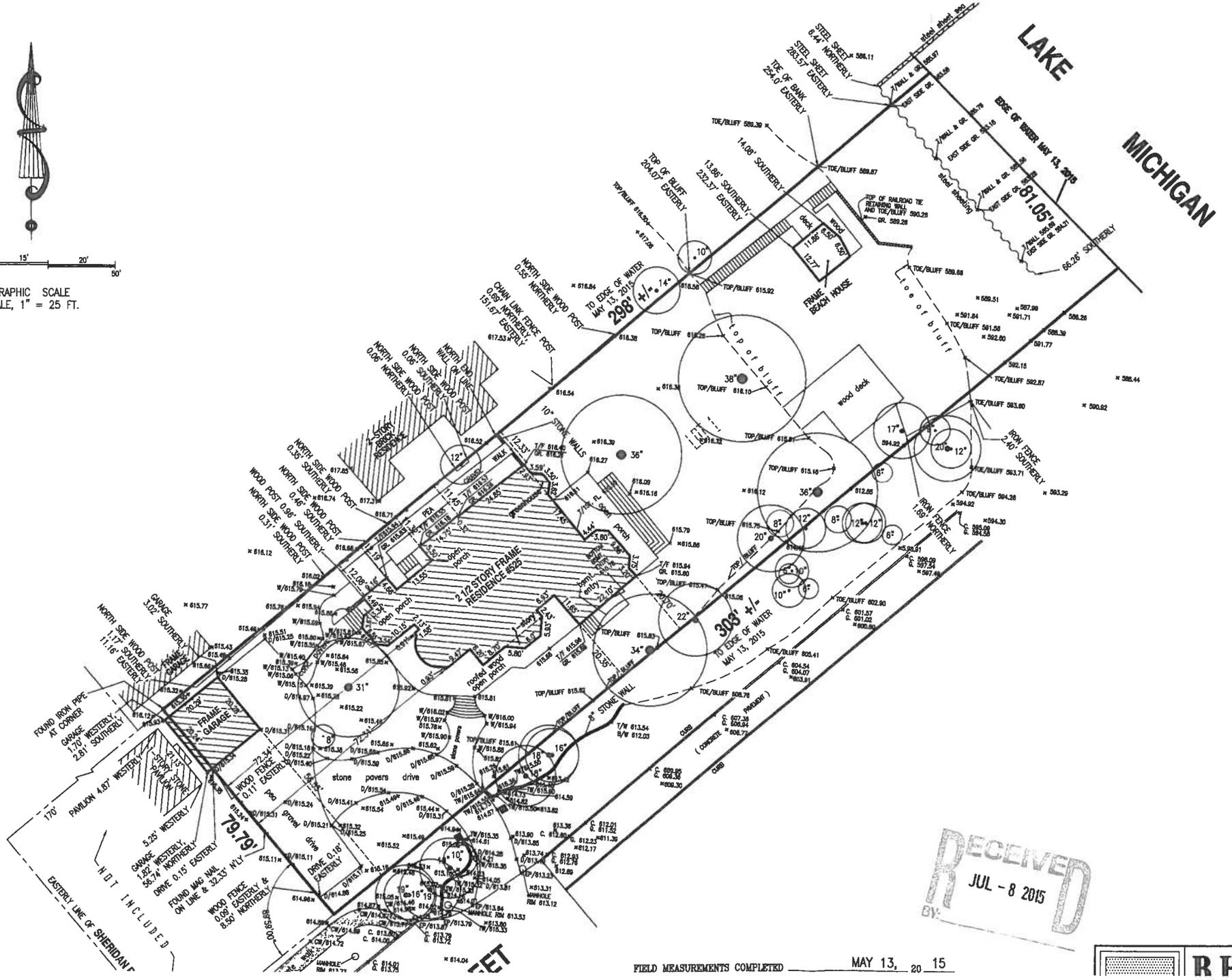
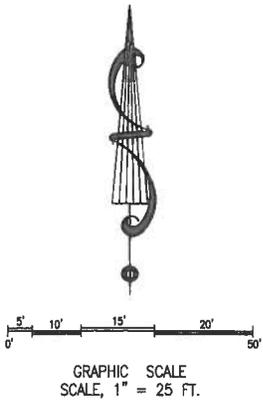
1. The property can not yield a reasonable return if permitted to be used only under the conditions allowed by regulations in that zone: If the setbacks are strictly followed the garage would need to be smaller in each direction to allow for the same clearance to the oak tree. The proposed garage is for only 3-cars in a zoning district that permits 4-cars, and on a lot where the Roofed Lot Coverage and Gross Floor Areas could be significantly more than proposed.
2. The plight of the owner is due to unique circumstances: The space to work with is unique to this lot, the location of the large oak tree was established long before all of us. The proposed garage position & approach are consistent with the long-established pattern for detached garage on this lot and in the community. The proposed garage position maintains the same (approximately 12' radius) clearance between garage and tree, as exists to the existing house. We studied a layout with the garage rotated to be parallel to the west property line and with a 3' rear setback, but this increased impervious coverage and forced the larger driveway surface further east and up to the oak tree. This approach would also have the garage wider (north to south), which could negatively impact the west neighbor's light & air to the east, with the roof's presence. The proposed garage position and orientation is consistent with the existing relationship of the accessory buildings at the rear interior shared property corner.

WILLIAM MURPHY  
ARCHITECT, LTD.

3. The variation, if granted, will not alter the essential character of the locality: The proposed garage is consistent with the locality, it is detached and located in the rear corner of the lot, backed up to the neighbor's garage.
4. An adequate supply of light & air to the adjacent property will not be impaired: Light & air to the north (garage) will remain as it is currently, by the gable roof design. Light & air to the west (pavilion) will be significantly improved by the new location of the proposed garage, and unimpaired by the gable design.
5. The hazard from fire and other damages to the property will not be increased: The hazard from fire & other damages will be decreased. The new garage will have in interior finish of fire-resistive gypsum board on the walls & roof (the current wood framing is exposed), and the new location on the lot will improve the separation to the west neighbor's pavilion.
6. The taxable value of the land and buildings throughout the Village will not diminish: The taxable value of the land & buildings throughout the Village should be improved by the by the proposed project, with the preservation of a large oak tree, preservation of the historical detached garage pattern, and with the proposed garage size closer to that of the zoning district.
7. The congestion in the public street will not increase: There will be no change to the public street traffic with the proposed garage or setbacks.
8. The public health, safety, comfort, morals, and welfare of the inhabitants of the Village will not be impaired: There will be no change to public health, safety, comfort, morals, and welfare of the inhabitants of the Village with the proposed garage or setbacks, other than the improvements for the west neighbor noted above.

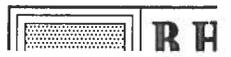
Sincerely,

William C. Murphy, Jr.  
William Murphy Architect, Ltd.



FIELD MEASUREMENTS COMPLETED MAY 13, 2015

RECEIVED  
JUL - 8 2015  
BY: \_\_\_\_\_



ATTACHMENT E



Julia and John Peterson  
[REDACTED]  
Winnetka, Illinois 60093  
[REDACTED]

August 3, 2015

Winnetka Zoning Board of Appeals  
c/o Village of Winnetka  
510 Green Bay Road  
Winnetka, IL 60093

**Re: Case No. 15-19-V2**

To Whom it May Concern:

It has recently come to our attention that our next-door neighbors, Nancy and Alan Kubicka of 525 Elm Street, have applied for a variation in order to build a garage on their property. We fully support this project and would like to share our reasoning.

First, we've been fortunate enough to have been included in the plans for a 3-car garage planned to replace the current 2-car building. The new garage will be beautiful and in keeping with the Kubicka residence as well as the other residential buildings in our neighborhood.

Second, the existing garage actually goes over our shared property line, for some unknown reason, and thus it is encroaching on our property by a matter of inches. While this is a relatively insignificant measure of land, it seems smart and prudent that the new building plans will bring the Kubicka buildings fully within their property lines.

Third, we understand architect William Murphy to be a superb professional with a sterling reputation. We have no doubt the new garage will be a tasteful addition to our neighborhood.

It is our pleasure to fully endorse the Kubicka garage plans. Either one of us stands ready to answer questions or assist in any way, as we've communicated with Nancy and Alan. We'd very much like to see this variation approved. Our cell phone numbers are [REDACTED] (John) and [REDACTED] (Julie), should you desire to discuss this matter.

Thank you very much for your consideration.

Sincerely,

[REDACTED]  
Julia and John Peterson



## Agenda Item Executive Summary

**Title:** Downtown Master Plan Steering Committee

**Presenter:** Robert M. Bahan, Village Manager

**Agenda Date:** 09/01/2015

**Consent:**  YES  NO

- Ordinance
- Resolution
- Bid Authorization/Award
- Policy Direction
- Informational Only

**Item History:**

September 9, 2014, Village Council Meeting, pp. 172-231  
 November 11, 2014, Village Council Meeting, pp. 18-34  
 December 9, 2014 Village Council Meeting, pp. 2-18  
 February 3, 2015 Village Council Meeting, pp. 270-289  
 June 16, 2015 Village Council Meeting, pp. 89-226  
 July 7, 2015 Village Council Meeting pp. 90-180

**Executive Summary:**

On July 7, 2015 the Village Council approved an agreement with Teska and Associates to assist the Village with the development of a Downtown Master Plan. Since July, when the Downtown Master Plan agreement was approved with Teska Associates, the consultant, staff and Council liaisons have been working toward preparing for an early fall launch of the master planning process. To date, the consultant has completed the development of a project website, worked on the project schedule, analyzing previous reports and studies, developed base map materials and worked on a draft communications plan. Also, significant time has been devoted towards developing the membership of the Steering Committee by the Village President and Trustees, and are working toward an early fall launch of the Downtown Master Planning Process.

**Recommendation:**

Council Confirmation of the Proposed Steering Committee Membership

**Attachments:**

- Agenda Report
- Attachment #1: Proposed Steering Committee Membership
- Attachment #2: Teska Memorandum Steering Committee & Working Group

## AGENDA REPORT

**SUBJECT:** Downtown Master Plan Steering Committee

**PREPARED BY:** Robert M. Bahan, Village Manager  
Michael D'Onofrio, Director of Community Development

**DATE:** August 27, 2015

### **Background**

Since July, when the Downtown Master Plan agreement was approved with Teska Associates, the consultant, staff and Council liaisons have been working toward preparing for an early fall launch of the downtown master planning process. To date, the consultant has completed the development of a project website, worked on the project schedule, analyzing previous reports and studies, developed base map materials and worked on a draft communications plan. Significant time has been devoted by President Greable, and the Trustees toward developing the membership of the Steering Committee and Working Groups.

The Steering Committee and Working Groups will form the core of the plan review and information sharing for the Winnetka Downtown Master Plan, and will be counted on to support communication about and promote the plan to the Village at large. The Steering Committee will be made up of eleven community officials and residents, and will serve as the primary point for gathering input from the Working Groups and the residents of the Village, and will be responsible for plan review and discussions as the consultant team presents findings and formulates recommendations. It is anticipated that the Steering Committee will meet on a monthly basis and their meetings will be noticed and open to the public. Attached, please find the recommended membership for the Steering Committee. All of the proposed Steering Committee members have confirmed their participation in the planning process.

The Working Group structure is organized into five groups and they will be requested to provide input into the planning process, which will assist in broadening the perspectives of the Steering Committee and Village Council. Further, the Working Groups will be charged with communicating about and advocating for the Master Planning process. The groups will draw upon the depth of expertise in the community on topics related to the plan.

The proposed groups include: Business District Members, Design Character, Development and Real Estate, Community Organizations, and at-large residents. At this time, the composition of the Working Groups is still being refined. However, it is anticipated that approximately 70 to 80 residents would be asked to participate in the Working Group process.

Teska Associates has prepared the attached memorandum that outlines the proposed Steering Committee meetings and topics. Further, Teska explains how the Working Groups would be engaged throughout the Master Planning process including attending meetings prior to and with the Steering Committee, engaging Working Group members uniquely during the scheduled open houses, electronically seeking input at timely intervals, providing access to information via the Master Planning website, and specifically inviting Working Group members to events and activities. The objective is to seek the Working Group input during the process, keeping them involved throughout the planning process while they in turn help communicate about the plan to the community.

**Recommendation**

Council confirmation of the Steering Committee Membership

**Attachments**

- *Attachment #1:* Proposed Steering Committee Membership
- *Attachment #2:* Teska Associates Steering Committee & Working Group Memorandum

# Downtown Master Plan- Steering Committee

2015

Steering Committee

**Margaret Benson**  
*Steering  
Committee Chair*

**Gene Greable**  
*Council  
Representative*

**Scott Myers**  
*Council  
Representative*

**Bill Krucks**  
*Council  
Representative*

**Jon Talty**  
*BCDC Chair*

**Tina Dalman**  
*PC Chair*

**Ian Larkin**  
*Park District  
Representative*

**Bob Winter**  
*Resident/Developer*

**Gwen Trindl**  
*Resident @ Large*

**Jim Gordon**  
*Resident @ Large*

**Steve Hudson**  
*Resident/Real  
Estate Broker*



**To:** Robert Bahan, Village of Winnetka  
Michael D’Onofrio, Village of Winnetka

**From:** Michael Blue, FAICP, Teska Associates, Inc.  
Lee Brown, FAICP, Teska Associates, Inc.

**Re:** **Village of Winnetka Downtown Master Plan  
Steering Committee / Working Group Process**

**Date:** August 26, 2015

---

A key aspect of the Downtown Mater Plan is how the Steering Committee and Working Groups will play a significant role in the process. This memo provides further detail on that aspect of the project and our recommendations on how to best incorporate those two groups into the work. The goal is to draw upon their particular community insights and areas of expertise, ask them to serve as “ambassadors” to the community for the plan, and have them help guide crafting of the Downtown Master Plan.

### **Steering Committee and Working Groups**

These groups will form the core of plan review and information sharing for the Downtown Master Plan. As part of their roles described here, the Steering Committee and Working Group members will be counted on to support communication about the plan to the Village at large by participating in the various public engagement activities (detailed in the communications plan) and informally sharing news about the plan with their neighbors.

The Steering Committee will be made up of eleven community officials and residents to be selected by the Village Council. The group will reflect the Village’s demographics and varied perspectives, and include those with the insights and expertise to best evaluate the plan and its elements.

The Steering Committee will serve as a primary point for synthesizing all public input, as well deliberation and discussion of the plan as the consultant team presents findings and formulates recommendations. They will review the plan and make a recommendation to the Village Council regarding the final document. The group is planned to meet monthly. A set date each month will be established for the meetings, preliminarily anticipated to be the fourth Monday of each month so as to best fit with other Village meetings. Steering Committee meetings will be open to the community and the format will vary depending on the topic. In general, the meetings will include a presentation by the consultant and discussion / deliberation on the topic by the group as a whole or in smaller group discussions. The intent will be to review and refine consultant findings and provide direction on plan implementation.

For a number of the substantive topics, Working Group input will be solicited and specifically incorporated into the Steering Committee discussion. Summaries of the Steering Committee meetings can be posted on the project website.

Working groups will augment the insights provided in the planning process and broaden the perspectives heard at the Steering Committee. The groups will draw on the depth of expertise in the community on topics related to the plan. Working Groups will be established for each of the following: 1) Business District Members, 2) Design Character, 3) Development and Real Estate, 4) Community Organizations, and 5) At Large Residents. Working Groups can range in size, but should be kept to not more than about fifteen people in order to optimize participation by all members. A member of the Steering Committee will be assigned as liaison to each of the Working Groups. The Working Groups' composition (and group titles) are organized to reflect common areas of interest and knowledge, and do not necessarily directly match the plan elements. This facilitates input that brings broader perspectives to each discussion.

Members of all Working Groups will be asked to attend the first Steering Committee meeting in order to learn about project objectives and so that all committee members are working from a common understanding of the process. In addition, the insights, expertise and ideas of Working Group members will be incorporated into the process on an ongoing basis in several ways:

- Each Working Group will participate in a 90 minute workshop session conducted directly before a related Steering Committee meeting (noted later in this memo). In addition, all Working Group members would be welcome to attend any other Working Group's meeting – this will be one way in which the participants are not limited in the topics on which they provide insight.

At that meeting, the participants would be divided into small study groups. Each will be asked to discuss a question relevant to the topic and / or related to one of the business districts and then present the results of their work for collective discussion. The Working Group will assign a reporter to present findings at the Steering Committee meeting later that evening. In this way, the insights and ideas of the Working Groups are directly incorporated into the process and Steering Committee deliberations.

- All Working Group members will be asked to participate in the two community – wide public input sessions (the first of which will help develop a vision for the Downtown and the second focused on responding to preliminary plan concepts). A participation role unique to the Working Group members will be incorporated into the input sessions. As anticipated at this point, that role would involve working with other community members at the open houses, playing a leadership role in facilitating discussions and general public input, and working with the consultant team to debrief on and consider broader meanings of that input.
- Using the project website, Working Group members will be asked to participate in targeted electronic, on-line dialogue to help refine issues to be considered by the Steering Committee. Questions will be put to the group in advance of the Steering Committee meeting specifically related to the meeting topic. Working Group insights will help the consultant fine tune the Steering Committee presentations and deliberation in order to best address the relevant issues.

For example, a discussion on preliminary parking and circulation findings is planned for the January Steering Committee meeting. In November or December, a dialogue on the topic would be initiated with all Working Group members. This input will advise and focus the consultant, Steering Committee, and Village Council on the issue. It is expected that those with particular interest and experience on the topic will be more likely to participate, but all Working Group members are invited to maximize input.

- A section of the website will be set aside to include a range of past studies and interim work products to be readily available to the Steering Committee and Working Group members. As public documents are part of a transparent planning process, the information would be available to all. However, it is anticipated that the information will be a particular resource to Working Group members.
- Given their unique participation in and knowledge of the plan, Working Group members (as well as Steering Committee members and Trustees) would be asked to act as ambassadors of the plan. They would be asked to attend local events, as described in the Communications Plan, to explain the purpose of and seek input on the Downtown Master Plan. This participation would be assisted by “talking points” to be provided by the consultant and Village staff. The goal is to have the Working Group members develop and bring to the process a broad understanding of community issues and concerns.

The Steering Committee / Working Group approach outlined here is designed to maximize input and deliberation by the community, while maintaining project momentum and advancing toward completion within the established twelve month time frame. It also seeks to focus the time commitment asked of Village residents. Steering Committee members will participate in monthly meetings, which can be a significant request for already busy residents – but the limited duration of the process lessens that burden. Working Group members are asked to participate in a manner that will focus their efforts and maximize the number of persons participating. Working Group participants wishing to take a more active role are certainly welcome, as is facilitated by the program outlined above.

Schedule of Steering Committee / Working Group meeting & topics (tentative dates are noted):

- September: Project Initiation - scope, project expectations, and site tour (9/28)
- October: Existing Conditions Findings (10/26)
  - *Working Group Meeting: Community Organizations*
- November: Market Findings (11/30)
  - *Working Group Meeting: Business District Members*
- December: Vision Drafting (12/16)
  - *Working Group Meeting: Residents at Large*
- January: Parking and Circulation Findings (1/25)
- February: Key Redevelopment Sites Workshop 1 (2/29)
  - *Working Group Meeting: Development and Real Estate*
- March: Key Redevelopment Sites Workshop 2 (3/28)
- April: Infrastructure and Urban Design Findings (4/25)
  - *Working Group Meeting: Design Character*

- May: Land Use and Regulatory Process Findings (5/31)
- June: Draft Plan Review (6/27)
- July: Draft Plan Review (7/25)
- August: Final Plan Review (8/29)