

Downtown Pocket Park

Lincolnshire, Illinois

**PROJECT MANUAL AND SPECIFICATIONS
FOR THE
DOWNTOWN POCKET PARK DEVELOPMENT**

Village of Lincolnshire

March 25, 2016

Downtown Pocket Park

Village of Lincolnshire, Illinois

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SECTION 00050
INVITATION TO BID

Receipt of Bid

Sealed bids for the Downtown Pocket Park are invited and will be received by the Village of Lincolnshire, on or before, but not later than 10:00 a.m., Central Time, April 14th, 2016 and immediately thereafter all bids will be publicly opened. Bids received later than April 14th, 2016 at 10:00 a.m. will be rejected.

Sealed envelopes or packages containing bids shall be marked as follows: "Downtown Pocket Park". The bid form must not be removed from and shall be kept bound with such other sections of the Contract Documents with which it has been bound by Owner.

General Description of Work

The above designated work and improvements referred to as the "Downtown Pocket Park", on which bids are requested, generally and briefly include the following:

The BASE BID includes the removal of existing features such as small trees and a portion of concrete walk. The installation of erosion control elements. And the development of the elements that compose the park, such as circulation walks, drinking fountain, site lighting, small play features, synthetic safety surface, landscaping and site furniture.

Contract Drawings

Copies of Contract Documents required for review or bidding purposes may be obtained at the following address:

Christopher B. Burke Engineering, LTD.
9575 W. Higgins Road Suite 600
Rosemont, Illinois 60018

Plans will also be available for viewing at; www.lincolnsireil.gov

Holding of Bid

No bid shall be withdrawn for a period of ninety (90) days after the scheduled time of the bid opening without the consent of the Owner.

Qualifications of Bidders

It is the intention of the Owner to award a contract only to a bidder who furnishes satisfactory evidence that he has the requisite experience and ability and that he has sufficient capital, facilities, and plants to enable him to prosecute the work successfully and promptly, and to complete the work within the time named in the Contract Documents. This evidence as set forth in the Bid Form shall be submitted with the bidder's bid.

The Owner may make such investigations as he deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of such bidders fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional or qualified bids will not be accepted.

Bidders shall indicate their qualifications (experience and references), and shall submit this information with their bids.

Award of Contract

The Village of Lincolnshire reserves the right to reject any non-responsible bids or to reject all bids and waive any informality or technicality in any bid in the interest of the Village of Lincolnshire.

STATEMENT OF NO BID

Note: If you do not intend to bid on performing this service, please complete and return this form immediately. Your response will assist us in evaluating all responses for this project and to improve our bid solicitation process.

If, for any reason you cannot supply the service noted in this bid solicitation, this form must be detached, completed and returned to the Village of Lincolnshire.

If you do not respond to this inquiry within the time set for the bid submittal date, we will assume that you can no longer supply this service, and your name will be removed from the Bidders list.

- _____ Specification too "tight", i.e., geared toward one brand or manufacturer only (explain below).
- _____ Specifications are unclear (explain below).
- _____ We are unable to meet specifications.
- _____ Insufficient time to respond to the Invitation to Bid.
- _____ Our schedule would not permit us to perform.
- _____ We are unable to meet insurance requirements.
- _____ We do not offer this product or service.
- _____ Remove us from your Bidders list for this service.
- _____ Other (please specify below).

Remarks: _____

Signed: _____ Title: _____

Firm: _____ Phone: _____

Address: _____

Date: _____

SECTION 00100
INSTRUCTION TO BIDDERS

1.0 GENERAL

1.1 INTENT

The intent of this Bid Request is to obtain an offer to perform work to create the new Pocket Park.

1.2 WORK IDENTIFIED IN CONTRACT DOCUMENTS

A. The above designated work and improvements referred to as the Downtown Pocket Park Project on which bids are requested generally and briefly includes the following:

The work includes the removal of existing features such as small trees and a portion of concrete walk. The installation of erosion control elements. And the development of the elements that compose the park, such as circulation walks, drinking fountain, site lighting, small play features, synthetic safety surface, landscaping and site furniture.

B. Location: Downtown Ring Road, directly behind the Fresh Market in, Lincolnshire, Illinois

1.3 CONTRACT TIME

Completion of the project in a reasonable time frame is crucial to minimize disruption of nearby residences. The Contractors proposed completion schedule will be a significant consideration in the selection process. The time for Substantial Completion and Final Completion, including construction milestones for the various elements of construction, shall be provided with the proposal and will be included in the Agreement. No equipment work will be allowed before 7:00 a.m. or after 7:00 p.m. Monday through Friday, or before 8:00 a.m. or after 6:00 p.m. on Saturdays or Village recognized Holidays. No work will be performed on Sundays without prior permission from the Village of Lincolnshire.

2.0 BID DOCUMENTS AND CONTRACT DOCUMENTS

2.1 DEFINITIONS

- A. Bid Documents
Contract Documents supplemented with Instructions to Bidders, Information Available to Bidders, Bid Form, and Supplements to Bid Forms, identified herein.
- C. Bid, Offer, or Bidding
Act of submitting an offer under seal.
- D. Bid Price
Monetary sum identified by the Bidder in the Bid Form.
- E. Engineer
Christopher B. Burke Engineering Ltd.

- F. Owner
Village of Lincolnshire

2.2 CONTRACT DOCUMENTS IDENTIFICATION

The Contract Documents are entitled: “Village of Lincolnshire Downtown Pocket Park” as prepared by the Engineer, Christopher B. Burke Engineering Ltd. located in Rosemont, Illinois, and identified in the Project Manual and on the following plans:

Sheet Number	Sheet Reference	Title
1	Titlle Page	
2	EXH-1	General notes, summary of quantities and removals
3	ECP-1	Erosion Control and Site Protection
4	ECP-2	Erosion Control Details
5	M-1	Notes and Bills of Materials
6	M-2	Proposed Improvement Plan
7	M-3	Existing Lighting Plan
8	M-4	Lighting Details - 1
9	M-5	Lighting Details – 2
10	M-6	Lighting Details – 3
11	M-7	Drinking Fountain Details
12	SD-1	Grading Plan
13	SD-2	Layout Plan
14	SD-3	Site Details
15	L-1	Landscape Plan

2.3 AVAILABILITY

- A. Bid Documents may be obtained at the Village of Lincolnshire offices in Lincolnshire, Illinois.
- B. Bid Documents are made available only for the purpose of obtaining a price quotation for this project. Their use does not grant a license for other purposes.

2.4 EXAMINATION

- A. Bid Documents may be viewed at the offices of the Village of Lincolnshire or Christopher B. Burke Engineering Ltd. They can also be viewed online at www.lincolnshireil.gov
- B. Upon receipt of Bid Documents verify that documents are complete. Notify the Village of Lincolnshire or Engineer should the documents be incomplete.
- C. Immediately notify the Engineer upon finding discrepancies or omissions in the Bid Documents.
- D. The bidder shall carefully examine the site of the proposed work and the plans, specifications, and forms of proposal, and contract before submitting his bid for the work contemplated. The submission of a proposal shall be considered conclusive evidence that the bidder has investigated and is satisfied as to all

conditions to be encountered in performing the work, and is fully informed as to the character, quality, quantities and costs of work to be performed and materials to be furnished, and to the requirements of the Plans, Specifications, Notice to Contractors, Instructions to Bidders, Proposal, and Contract. If his bid is accepted, the bidder will be responsible for all errors in his proposal resulting from his failure or neglect to comply with these instructions, and for any anticipated profits resulting from such failure or neglect. The Bidder shall indicate in the Bid the sum to cover the cost of all items included on the Bid Form and a statement as to the dates the Bidder visited the site.

2.5 QUERIES / ADDENDA

- A. Direct questions concerning the project, plans and specifications, and contract conditions must be submitted in written form to Douglas Gotham at the following address:

Christopher B. Burke Engineering Ltd
9575 West Higgins Road, Suite 600
Rosemont, IL 60018

dgotham@cbbel.com

- B. Addenda may be issued during the Bidding period. All Addenda become part of the Contract Documents. Include resultant costs in the Bid Price.
- C. Verbal answers are not binding on any party.
- D. Clarifications requested by Bidders must be in writing. The reply will be in the form of an Addendum, a copy of which will be forwarded to known recipients.

3.0 SITE EXAMINATION

- A. Examine the project site before submitting a Bid.
- B. It is understood and agreed that all site factors have been properly examined and considered in the preparation of the Bid submitted. There will be no subsequent financial adjustment, to any contract awarded thereunder, which is based on the lack of such prior information or its effect on the cost of the Work.
- C. The Contractor shall be responsible for all dewatering necessary for construction. If the Contractor is not familiar with soil and groundwater conditions, independent soil examination and testing should be performed by the Contractor at his own expense prior to submitting Bid.

4.0 QUALIFICATIONS

4.1 BIDDERS STATEMENT OF COMPETENCY

- A. The bidder shall submit with his proposal a satisfactory statement of his competency to perform the work contemplated in the form of a signed letter addressed to the Village. The bidder's statement of competency shall consist of a complete report of his equipment, prior experience including the project names, locations, dates of completion and contact name with telephone number of at

least (3) similar projects completed within the last 18 months, and any other pertinent or material facts.

4.2 SUBCONTRACTORS/SUPPLIERS/OTHERS

- A. The Village of Lincolnshire reserves the right to reject a proposed Subcontractor for reasonable cause.

5.0 BID SUBMISSION

5.1 SUBMISSION PROCEDURE

- A. Bidder shall be solely responsible for the delivery of their Bid in the manner and time prescribed.
- B. Submit one copy of the executed offer on the Bid Forms provided, signed, to Wally Dittrich, Village of Lincolnshire, Village of Lincolnshire, One Olde Half Day Road, Lincolnshire, Illinois 60069.
- C. Submit Bids by April 14th, 2016 at 10:00 am, Central Time.
- D. Preparation of Proposal – The bidder shall submit his proposal on forms furnished by the Village. All writing shall be in ink or typewriter, except the signature of the bidder shall be written with ink. A proposal made by an individual shall be signed by the bidder or his duly authorized agent. A proposal made by a partnership shall be signed by one partner or by a duly authorized agent thereof. A proposal made by a corporation shall be signed by an authorized officer or duly authorized agent of such corporation.
- E. Delivery of Proposal -- The proposal shall be placed in a sealed envelope plainly marked to indicate its contents and the bidder's name and address. Proposals shall be delivered prior to the time and at the place designated in the Notice to Contractors. When delivered by mail, the sealed proposal marked as specified above shall be enclosed in an additional envelope addressed to the Village and preferably sent by registered or certified mail. If the proposal is received after the opening of bids, it will be returned to the bidder unopened. Proposals may not be submitted by email or facsimile.
- F. Opening of Proposals – Proposals will be opened and read publicly at the time and place designated in the Notice to Contractors. Bidders, their authorized agents, and other interested parties are invited to be present.

5.2 UNIT PRICES

If there is a discrepancy between unit prices and their extensions, unit prices shall prevail.

6.0 BID ENCLOSURES/REQUIREMENTS

6.1 PERFORMANCE ASSURANCE

Accepted Bidder

Provide a Performance and Labor and Materials Payment Bond using Illinois Department of Transportation Forms (latest version). Also provide a maintenance bond in the amount of 5 percent of the total contract bid amount to ensure proper establishment of vegetation of all disturbed areas as provided for in Specification Section 02980. The successful Contractor shall have 15 calendar days to return the correctly completed documents. The Bond must be from a Surety Company approved by IDOT. The department utilizes the US Treasury's Circular 570 to determine the eligibility of the Surety Company. This list may be found at <http://www.fms.treas.gov>. The Performance Bond must be for the entire amount of the contract and issued by a firm authorized for the underwriting of at least that amount.

6.2 BID BOND

All Bidders shall submit a Bid Bond at the time of bid submittal as follows:

- A. Bid Bonds may only be furnished by a surety having the minimum equivalent of Best and Co. 5A rating.
- B. Amount must be equal to at least five (5) percent of the Total Base Bid, but not less than required by State Statutes.

The form of the Bid Bond shall be as shown in Appendix A. The security of the three lowest Bidders will be returned after the execution of the Agreement with the successful Bidder and the approval of its bonds and insurance. The security of all other Bidders will be returned promptly after the bids have been opened and reviewed by the Owner. If all bids are rejected, then all securities will be returned at the time of rejection.

6.3 BID FORM REQUIREMENTS

- A. Complete all requested information in the Bid Form, and Supplements to Bid Forms.
- B. The Bid shall be legibly prepared in ink or typed. If a unit price or extension already entered by the Bidder on the Bid and Award Form is to be altered, it shall be crossed out and the new unit price or extension entered above or below and initiated by the Bidder in ink. The Bid shall be legally signed by an authorized agent of the Contractor and the completed address of the Bidder given thereon.

6.4 BID FORM SIGNATURE

The Bid Form shall be signed by the Bidder, as follows:

- A. Sole Proprietorship
Signature of sole proprietor in the presence of a witness, who will also sign. Insert the words "Sole Proprietor" under the signature.
- B. Partnership
Signature of all partners in the presence of a witness, who will also sign. Insert the word "Partner" under each signature.
- C. Corporation

Signature of a duly authorized signing officer in their normal signatures. Insert the officer's capacity in which the signing officer acts, under each signature. Affix the corporate seal. If the Bid is signed by officials other than the President and Secretary of the company, or the President/Secretary/Treasurer of the company, a copy of the by-law resolution of the Board of Directors authorizing them to do so, must also be submitted with the Bid Form.

D. Joint Venture

Each party of the joint venture shall execute the Bid Form under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a Partnership.

7.0 OFFER ACCEPTANCE / REJECTION

7.1 DURATION OF OFFER

Bid shall remain open to acceptance and shall be irrevocable for a period of sixty (60) days after submittal. The completion date for the project will be adjusted if the Written Notice of Award is issued after June 1st, 2016.

7.2 ACCEPTANCE OF OFFER

7.2.1 The Village of Lincolnshire reserves the right to accept or reject a bidder's proposal for any of the following causes:

7.2.1.1 Developments subsequent to the bid opening which in the Owner's opinion would reasonably be construed as affecting the competency or responsibility of the bidder.

7.2.1.2 Conviction of a violation of State or Federal law, or rule or regulation of a State or Federal agency, relating to or reflecting on the competency of the bidder for performing the work contemplated.

7.2.1.3 More than one proposal for the same work from an individual, partnership, or corporation under the same or different names, or evidence of collusion among bidders.

7.2.1.4 Proposal contains omissions, erasures, alterations, unauthorized additions, conditional or alternate bids, or irregularities of any kind which tend to make the proposal incomplete, indefinite, or ambiguous as to its meaning.

7.2.1.5 Proposal form is other than furnished by the Village.

7.2.1.6 Proposal is not accompanied by a proper bidder's statement of competency.

7.2.1.7 Lack of qualifications as revealed by the bidder's statement of competency.

7.2.1.8 Uncompleted work which in the judgment of the Village might hinder or prevent the prompt completion of additional work if awarded.

7.2.2 Unless all proposals are rejected for good cause, award of contract will be made to lowest responsive, responsible bidder whose proposal complies with all specified requirements stated herein. The successful bidder will be notified by letter that his bid has been accepted and he has been awarded the contract by the Village.

- 7.2.3 Failure to Execute Contract: Failure on the part of the successful bidder to execute a contract within fifteen (15) days after the date the contract was mailed or otherwise delivered to him, will be just cause for the annulment of the award. If the Village fails to execute the contract agreement within a reasonable time, not to exceed ninety (90) days after receiving the executed contract agreement from the successful bidder, the Contractor shall have the right to withdraw his proposal.

8.0 CONTRACT DOCUMENTS

- A. The Contract Documents shall consist of the Instructions to Bidders; the Contract Agreement; the Specifications and Addenda pertaining thereto; the General and Special Conditions; the Drawings; the Bid Form and Proposal; and including all modifications therein incorporated before their execution. These items form the Contract. Should they disagree, the better quality or greater quantity of work and/or materials shall be furnished. The intention of the documents is to include all labor and materials necessary for the proper execution and completion of the work as stipulated in the Contract. The Contract Agreement Form to be used for this project is provided in Appendix B.
- B. The correlation and intent of the Contract Documents is that they are complementary and what is called for by any one shall be as binding as if called for by all. The intention of the Contract Document is to include in the Contract Price the cost of all labor and materials, tools, plant, equipment, transportation, and all other expenses as may be necessary for the proper execution of the work. Electric power, telephone, light, and fuel shall be a part of the Contract Price, unless otherwise stated in the Specifications.
- C. In interpreting the Contract Documents, words describing materials of work which have a well-known technical or trade meaning, unless otherwise specifically defined in the Contract Documents shall be interpreted in accordance with such well-known meaning recognized by Architects, Engineers, and the trade.
- D. Wherever material of a specific grade name or manufacturer is specified, it is understood that an approved equal will be acceptable in accordance with the procedure for "Substitution of Materials", provided its equality to the specified material can be established in all respects and approval is given in writing by the Engineer.
- E. The Specifications are intended to amplify and supplement the Drawings, and therefore, it will not be their province to mention any portion of the construction which the Drawings are competent to explain, and such omission shall not relieve the Contractor from carrying out such portions indicated only on the Drawings. Should items be required by the Specifications and not indicated on the Drawings, they shall be supplied even if of such nature that they could have been indicated thereon.
- F. The key shown on the Drawings, together with the Specifications and written descriptions contained on the Drawings, shall be the guide as to the kind of materials to be used. That particular grade or quality of the materials of the several kinds shall be as hereinafter specified.

9.0 REQUIRED CONTRACT DOCUMENTS

The following information shall be submitted after Contractor's receipt of the Notice of Award and before receipt of the official Notice to Proceed.

- A. Original and two (2) copies of each Subcontract.
- B. Bonds: performance, labor and materials, and maintenance.
- C. Certificate of Insurance.

10.0 INSURANCE REQUIREMENTS

The contractor shall secure and maintain such insurance from an insurance company authorized to write casualty insurance in the State of Illinois to protect against claims for bodily injury, death or property damage which may arise from the project. The contractor shall pay the premiums for such insurance in such amount and with such provisions as will protect the Village from contingent liability and a copy of such insurance policy or policies shall be delivered to the Village. The insurance policy shall name the Village, Engineer (Christopher B. Burke Engineering, Ltd.) and the Property Owners that are providing construction easements as additional insureds, and shall submit a certificate of insurance or certified copy of the insurance policy with the Village.

The insurance shall cover:

- 10.1 General liability Insurance including general aggregate coverage, products aggregate coverage, personal and advertising injury, and each occurrence; a minimum limit two million dollars (\$2,000,000.00) for each item.
- 10.2 Automobile and truck public liability including bodily injury (per person), bodily injury (per accident) and property damage; a minimum combined single limit of two million dollars (\$2,000,000.00).
- 10.3 Excess liability umbrella coverage of two million dollars (\$2,000,000.00) for each occurrence and two million dollars (\$2,000,000.00) in aggregate.
- 10.4 Workmen's Compensation and Employer's Liability Insurance shall be secured and maintained as required by the State.

11.0 INDEMNIFICATION

- 11.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Village and its officers, and agents and employees from and against claims, damages, losses, and expenses, including but not limited to attorney's fees, arising out of or resulting from performance of the work, provided that such claim, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from performance of the work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage,

loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge or reduce other rights or obligations of indemnity which would otherwise exist as to party or person described in this paragraph 11.

- 11.2 In claims against any person or entity indemnified under this paragraph by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this paragraph shall not be limited by a limitation or amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under worker's or workman's compensation acts, disability benefit acts or other employee benefit acts.

12.0 TAX EXEMPT

The Village of Lincolnshire is a tax exempt body. All purchases of materials subject to a sales or use tax shall be coordinated with the Village of Lincolnshire in order to claim this tax exempt status.

13.0 DELAYS AND EXTENSION OF TIME

If the Contractor is delayed at any time in progress of the work by an act or neglect of the Village, or of an employee of either, or of a separate contractor employed by the Village, or by changes ordered in the work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control, or by delay authorized by the Village, at its sole discretion, pending arbitration, or by other causes which the Village, at its sole discretion, determines may justify delay, then the contract time shall be extended by change order for such reasonable time as the Village may determine at its sole discretion.

14.0 PAYMENT AND HOLDBACK

- 14.1 Payment of invoices submitted before the 15 of the month will be submitted for Board approval and payment will be made by the 15th of the following month.

- 14.2 Payments shall be as follows:
Waivers of Mechanics Lien: With each application for payment, submit waiver of mechanics lien for work shown on previous applications. When an application shows completion of an item, submit final or full waivers. The Village reserves the right to designate which entities involved in the work must submit waivers.

- 14.3 Holdback:
An amount equal to 10% of the total Contract Amount will be held by the Village until the final acceptance of construction. The holdback will be reduced to 5% during the seeding and planting establishment period as provided for in SECTION 02980 (INSPECTIONS AND ACCEPTANCE). Any charges or penalties owed to the Village will be subtracted from these amounts at the time of final payment.

15.0 SUBSTITUTIONS

Any component may be substituted in accordance with the following conditions:

- 15.1 The column marked substitution shall be marked with an appropriate reference indicating a substitution. No substitutions shall be allowed unless the substitution column is marked on the proposal in accordance with this section.
- 15.2 All substitutions must be accompanied by catalog cuts and a text narrative clearly and explicitly detailing how and why the proposed substitution meets or exceeds the specified item.
- 15.3 Plans and drawings, as applicable, showing the connections and interrelationships to the system must accompany the proposal.
- 15.4 Any additional wiring, cabling and interconnection changes related to the substitution shall be considered incidental to and included in the price of the proposed substitution.
- 15.5 The Village, at its sole discretion, shall either accept or reject any item marked as a substitution prior to contract approval.

16.0 SUBCONTRACTOR

If Contractor proposes to perform contract with Sub-contractor(s), then all qualifications, insurance requirements, and other applicable terms and conditions shall apply to each and every Sub-contractor. The proposal shall include such documentation for each Sub-contractor. Prior to any work being performed by the Sub-Contractor, the Contractor shall submit all the necessary information to the Village regarding Sub-contractor including company name, company address, certificate of insurance, licenses, years in business, bid certification, name of project contact person; and the Village, at its sole discretion, may require additional insurance, bonds, or deposits to assure faithful performance.

17.0 DISCREPANCIES

- 17.1 Prior to the opening of bids, requests for clarification of the plans, specifications, or contract documents shall be submitted in writing to the Village. Clarifications will be issued at the discretion of the bidder. Only clarifications provided in writing shall be relied upon when preparing bids.
- 17.2 Upon execution of the Contract, any discrepancies between drawings and the plans and specifications shall be subject to interpretation by the Village of Lincolnshire as Owner, in its sole discretion. The Contractor shall immediately, upon finding any discrepancy, request an interpretation from the Village. The Village shall provide a written clarification within 5 working days or the Contractor shall use best judgment.

18.0 DRUG FREE WORKPLACE

Employees are required to be drug and alcohol free at all times that they are in the workplace. This means that no measurable amount of abuse drug or alcoholic beverage shall be present in the employee's system while on the job, either during the regularly scheduled workday or any overtime or emergency response. Employees must realize that many legal and illegal drugs used for recreational purposes may remain in the system for several days, and that residual amounts of legal and illegal drugs discovered in the system are included in this policy.

19.0 SMOKE FREE WORKPLACE

No smoking is allowed on the premises of any buildings in the Village of Lincolnshire.

20.0 PERMITS

The following permits must be in place before construction can begin:

Illinois Environmental Protection Agency – The project requires a Section 401 Water Quality Certification. A permit application has been submitted to the IEPA and approval is forthcoming.

Corps of Engineers – A U.S. Army Corps of Engineers permit is required for the proposed activities as contained in this package. A permit application has been submitted to this agency and approval is forthcoming.

Lake County Watershed Development Ordinance Permit -- A permit application has been submitted to this agency and approval is forthcoming.

Other Permits – The Contractor will be responsible to obtain approval from the City for proposed traffic routes, types of trucks and weight of construction vehicles.

The Contractor shall satisfy all general and special permit conditions in the above and any other applicable permits.

21.0 UTILITY PROTECTION

Utilities may exist on site but are not shown on the Contract Drawings. The Contractor is responsible for locating all utilities by calling J.U.L.I.E. and the Village of Lincolnshire prior to commencing work on site. Existing utilities should be protected at all times during construction to avoid damage or injury. Any damage to utilities as part of this contract is the responsibility of the Contractor.

22. PENALTY: A penalty in the amount of \$1,000 per day shall be used if the project is not substantially completed by **September 30, 2016**. The Penalty amount shall be deducted from the final payment for each day or portion thereof, that the Contractor is not substantially completed with all work by **September 30, 2016**,

except for work items specifically called for in the specifications to be completed after that date.

END OF SECTION

SECTION 00310

BID FORM

To: Wally Dittrich
Village of Lincolnshire
One Olde Half Day Road
Lincolnshire, Illinois 60069

Project: Downtown Pocket Park

Date: _____

Submitted By: _____
Full Name

Full Address: _____

1.0 OFFER

The undersigned, as Bidder, declares that he has carefully examined the proposed form of Agreement and Bonds, and the Contract Drawings and Specifications for the above designated work and all the other documents referred to or mentioned in the Contract Documents, the Contract Drawings and Specifications, and the Place of Work; and he proposes and agrees if this bid is accepted, that he will contract with the Village of Lincolnshire in the form of Agreement included in these Contract Documents, to provide all necessary machinery, tools, apparatus, and other means of construction, including utility and transportation services necessary to do all the work and furnish all materials and equipment specified or referred to in the Contract Documents, in the manner and time herein prescribed in the Agreement, and to do all other things required of the Contractor by the Contract Documents, and that he will take in full payment therefore the sums set forth in the following Bidding Schedule.

A. BASE BID ITEMS

GENERAL

ITEM	Qty.	Unit	
Mobilization, Bonding and Insurance	1	LS	_____
Layout	1	LS	_____
As Built Survey	1	LS	_____

SITE CLEARING, PROTECTION AND EROSION CONTROL

ITEM	Qty.	Unit	
Site Clearing	0.21	AC	_____
Tree Removal and Relocate (2-6" cal.)	8	EA	_____
Ex. Sidewalk Removal	66	SY	_____
Stabilized Construction Entrance	78	SY	_____
Temporary Access Path	115	SY	_____
Temporary Fence (4')	150	LF	_____
Tree Protection Fence	72	LF	_____
Temporary Asphalt Curb Ramp	24	LF	_____
Erosion Control Fence	520	LF	_____

EARTHWORK

Fill	52	CY	_____
Topsoil Fill	80	CY	_____
Cut	100	CY	_____

SITE WORK

Concrete Sidewalk	114	SY	_____
Colored Concrete	192	SF	_____
Brick Edge	95	LF	_____
Firmapave	587	SF	_____
Concrete Base for Safety Surface	587	SF	_____
Synthetic Safety Surface	940	SF	_____

SITE FURNISHINGS

Benches	9	EA	_____
Bike Racks	2	EA	_____
Ponderosa Sculpture	1	LS	_____
Grass Goric Play Pieces	3	LS	_____
Compass Letters	4	LS	_____

DRINKING FOUNTAIN / WATER SERVICE

Halsey Taylor # 4420BF1UDB, Complete in Place	1	EA	_____
Water Service, Complete in Place	1	EA	_____

Catch Basin, Complete in Place 1 EA _____

LIGHTS / ELECTRICAL SERVICE

Underground Conduit, Galvanized Steel 3/4 dia. 100 FT _____
 Underground Conduit, Coilable Non Metallic Conduit 3/4 " dia. 200 FT _____
 UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1" DIA. _____
 Underground Conduit, Coilable Non Metallic Conduit 1 1/4 " dia. 500 FT _____
 Handhole, Composite Concrete 12" x 12" 6 EA _____
 Handhole, Composite Concrete 11" x 18" 3 EA _____
 Electrical Cable in Conduit, 600V (XLP-Type Use) 1/C No. 10 600 FT _____
 Electrical Cable in Conduit, 600V (XLP-Type Use) 1/C No. 6 2900 FT _____
 Removal of Pole Foundation 2 EA _____
 Relocate Existing Lighting Unit 2 EA _____
 Remove Electric Cable from Conduit 800 FT _____
 Flood Lighting Unit, With GFCI Receptacle and Enclosure 6 EA _____
 Lighted Bollard and Foundation, Complete in Place 4 EA _____
 Maintain Existing Lighting System 1 LS _____

LANDSCAPE

Red Buckeye 1 EA _____
 American Hornbeam 4 EA _____
 Cornelian Cherry Dogwood 4 EA _____
 Japanese Tree Lilac 2 EA _____
 Diablo Ninebark 5 EA _____
 Meidland Bonica Rose 17 EA _____
 Chicagoland Boxwood 19 EA _____
 Meadow Anemone 20 EA _____
 Butterflyweed 5 EA _____
 Side Oats Grama 24 EA _____
 Feather Reed Grass 3 EA _____
 Magnus Coneflower 36 EA _____
 Carousel Little Bluestem 38 EA _____
 Ironweed 35 EA _____
 IDOT Class 4A 427 SY _____

ALTERNATE

Curved Arbor, Supply and Install 1 EA _____
 Flood Lighting Unit, With GFCI Receptacle and Enclosure 6 EA _____

2.0 ADDENDA

The following Addenda have been received. The modifications to the Bid Documents noted therein have been considered and all costs thereto are included in the Bid Price.

Addendum # _____ , dated _____

Addendum # _____ , dated _____

3.0 BID FORM SIGNATURE

The Corporate Seal of:

(Bidder, please print the full name of your Proprietorship, Partnership, or Corporation)
was hereunto affixed in the presence of:

(Authorizing Signing Officer)

(Title)

(Seal)

(Authorized signing officer)

(Title)

If the Bid is a joint venture or partnership, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above.

END OF SECTION

SECTION 00800**SUPPLEMENTARY CONDITIONS****1.0 COORDINATION WITH PROPERTY OWNERS**

This site is located adjacent to residential properties. All construction activities must be coordinated such that the property owner's access to their homes and driveways are not obstructed as directed by the Owner and Engineer. Access to the work limits and right of way shall be from public right of ways. The Contractor shall keep within the designated work limits and stream right of ways.

2.0 PERMITS, FEES AND NOTICES

The Contractor expressly acknowledges and agrees that the Owner has been required to obtain various regulatory and other permits in conjunction with the construction and operation of the Project. The Contractor expressly covenants and agrees to comply (and cause all Subcontractors and all other persons or entities conducting any work on the Project to comply) with such permits. The Contractor shall perform all work hereunder, and supervise the work of all Subcontractors and all others providing services or goods in connection with the Project in conformance with the Terms and Conditions of any required permits. Work shall not be initiated until all permits have been issued.

3.0 OWNER'S RIGHT TO PERFORM WORK AND AWARD SEPARATE CONTRACTS

The Contractor expressly acknowledges and agrees that Owner shall have the right to perform work with his own employees or agents or with any separate Contractor in the event that the Contractor is in default. In the event that Owner exercises its rights under this section, it shall adjust the amounts paid to the Contractor to compensate the Contractor for the work done, and the Contractor shall be obligated to assist Owner (or the separate Contractor as applicable) in the transition of all work from the Contractor to Owner or such separate Contractor.

4.0 QUALITY ASSURANCE/QUALITY CONTROL

The Contractor expressly acknowledges and agrees that the Owner intends to conduct a Quality Assurance and Quality Control Program pursuant to which, among other things, the Owner shall conduct construction monitoring of the work, tests of the materials and other such procedures as it shall deem necessary or advisable. The Contractor expressly covenants and agrees to assist Owner in implementing this quality assurance/quality control program as requested by Owner, provided however, that nothing in this Section shall relieve the Contractor of its responsibility for the quality of the work. Owner may do its own independent testing if there is a dispute with the Contractor over quality assurance. However, Owner is not required to do so in order to assist the Contractor in its Quality Assurance Program.

5.0 COMPETENT PERSON

The Contractor shall delegate a competent person as required to satisfy OSHA requirements.

6.0 FORM OF BONDS

Provide a Performance and Labor and Materials Payment Bond using Illinois Department of Transportation Forms (latest version). Also provide a maintenance bond in the amount of 5 percent of the total contract bid amount to ensure proper establishment of vegetation of all disturbed areas as provided for in Specification Section 02980. The successful Contractor shall have 15 calendar days to return the correctly completed documents. The Bond must be from a Surety Company approved by IDOT. IDOT utilizes the US Treasury's Circular 570 to determine the eligibility of the Surety Company. This list may be found at <http://www.fms.treas.gov>. The Performance Bond must be equal to 110% of the contract amount, and shall be valid for not less than three years from the date of awarding of this contract.

7.0 CLEANING UP

7.1 The Contractor shall at all times keep the premises free from accumulation of waste materials and rubbish caused by his work. Tools, equipment and surplus materials shall be removed upon completion of the work. If the Contractor fails to clean up as provided in the Contract Documents, the Village may do so and the cost thereof shall be charges to the Contractor or subtracted from any holdback amount.

7.2 Final cleaning of each surface or unit shall be done to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions. Remove labels that are not permanent. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compound and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Clean exposed hard-surface finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original reflective condition.

8.0 FUNCTIONAL/OPERATIONAL

8.1 The Village, at its sole discretion, shall make the determination of "functional and operational" in the event of any questions, disputes, or concerns regarding this Contract. The Village, shall submit a notice of final acceptance to the Contractor in order to release any payment money held by the Village or final payments, less any deductions for penalties or other charges.

9.0 FINAL ACCEPTANCE

9.1 Preliminary procedures - Before requesting final payment, complete the following:

- List any exceptions in the request for final payment.
 - Submit the final payment request with releases, waivers of liens, and supporting documentation not previously submitted and accepted.

- Submit an updated final statement, accounting for final additional changes to the Contract Sum.
- Submit the notice of final acceptance from the Village along with all other documentation.

9.2 Inspection/Re-inspection Procedure:

- The Village will inspect or re-inspect the work upon receipt of notice that the work, including inspection list items from any earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to the Village.
- Upon completion of inspection or re-inspection, the Village will prepare a notice of final acceptance, or advise the Contractor of work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance. If necessary, re-inspection will be repeated.

10.0 LIENS/WAIVERS

The Contractor shall submit in a timely manner a waiver of lien for each and every item of equipment procured or installed under this contract. No payment shall be made to the Contractor until all necessary waivers of lien are submitted to the Village.

11.0 WARRANTY

The Contractor shall guarantee that the materials and workmanship of the installed equipment are of the highest quality in every respect and that he will make good any defects in materials or workmanship which may develop within one year from the date of final acceptance, at no cost to the Village. All merchandise furnished by the Contractor is hereunder is unconditionally warranted by the Contractor for one year against defects in materials or workmanship.

If defects appear due to faulty workmanship or materials within the warranted period, the Contractor will upon receipt of notice thereof repair or replace same without charge to the Village. All other services furnished by the Contractor after installation and acceptance will be provided by the Contractor at the regular hourly rate for the trade required. The Contractor will provide such service through its own mechanics and subcontractors and shall charge only the effective rate with no profit added. Replacement merchandise and parts other than those furnished under warranty shall be provided at the same rates as the basic products sold under these General Conditions.

In the case of any work performed in correcting defects pursuant to the guarantees provided for by the Contractor the guarantee period shall begin anew from the date of the notice of acceptance of the repair work. The forgoing remedies shall not deprive the Village of any action, right or remedy otherwise available for breach of any of the provisions of the Contract Documents by the Contractor and the periods referred to above and shall not be construed as a limitation on the time in which the Village may pursue other action, right or remedy.

END OF SECTION

SECTION 01019**CONTRACT CONSIDERATIONS**

1.0 GENERAL

1.1 SECTION INCLUDES:

- A. Contract Drawings and Specifications
- B. Contractor's Materials, Equipment and Workmanship
- C. Payments
- D. Preliminary and Final Field Tests
- E. Record Drawings

2.0 PRODUCTS

NOT USED

3.0 EXECUTION

3.1 CONTRACT DRAWINGS AND SPECIFICATIONS

- A. The Work to be done is shown in a set of Contract Documents which bears the general title:
 - Downtown Pocket Park
 - Lincolnshire, Illinois
- B. After the Contract has been executed the Contractor will be furnished with a computer disk of the Contract Drawings, Reference Drawings, and Specifications.
- C. Supplementary Drawings: When the Engineer decides to show more fully the work to be done, or to show required changes, or to rectify errors which may have been discovered, drawings to be known as supplementary drawings and revision sheets with specifications pertaining thereto will be prepared by the Engineer given to the Contractor. Supplementary drawings and revised Contract Drawings shall be as fully binding as the original Contract Drawings, and if such supplementary or revised Contract Drawings require either less or more than the estimated quantities of work, credit to the Owner or compensation therefore to the Contractor shall be subject to the terms of the AGREEMENT.
- D. Items Specified by Name: In these Specifications and Contract Drawings, there are specified by name certain materials which are believed suitable for the service required. It is the intent of these Specifications that other materials, equally as good and efficient may be used. The Contractor shall submit full details of such materials (for approval by the Engineer). Determination as to whether such materials meet with these specifications shall rest solely with the Engineer.
- E. Drawings and Specifications Explanatory of Each Other: The Contract Drawings and Specifications are intended to be explanatory of each other, but should any discrepancy appear or any misunderstanding arise as to the import of anything contained in either, the explanation of the Engineer shall be final and binding upon the Contractor. Any correction of errors or omissions in the Contract Drawings or Specifications may be

made by the Engineer when such correction is necessary for the proper fulfillment of their intent as construed by him.

- F. All work called for in the Specifications but not shown on the Contract Drawings in the present form or vice versa, and work not specified in either the Contract Drawings or in the Specifications but necessary in carrying out their intent or in the complete and proper execution of the Work, is required and shall be performed by the Contractor as though it were specifically delineated or described.
- G. The apparent silence of the Specifications as to any detail or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished, shall be regarded as meaning that only the best general practice is to prevail and that the best material and workmanship are to be used. Interpretation of these Specifications shall be made on this basis.
- H. All dimensions, quantities and details shown on plans, sketches, schedules or other data received from the Engineer shall be verified and the Contractor shall notify him of all errors, omissions, conflicts and discrepancies found therein.
- I. Failure to discover or correct errors, conflicts or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory work, faulty construction or improper operation resulting there from, nor from rectifying such conditions at his own expense. Figures shall be used in preference to scaled dimensions, and large-scale drawings in preference to small-scale drawings.
- J. The Contractor acknowledges that he has visited the Site of the Work to familiarize himself with the grounds and conditions surrounding it before enacting the Contract. He shall take all necessary measurements and data at the structures and verify such dimensions and quantities as may be given on the Contract Drawings and in the Specifications.
- K. No extra compensation will be allowed the Contractor because of his failure to inform himself fully and to include in his prices all items of labor and material to be furnished.
- L. The Contractor may, if the approval of the Engineer is obtained, modify the Contract Drawings or change the details if necessary to suit existing conditions. However, the general arrangement and essential details shall be followed to the fullest extent possible.
- M. No Advertising Signs: No Contractor shall display advertising signs on or about the Site of the Work other than those specified, without the written permission of the Engineer.

3.2 CONTRACTOR'S MATERIALS, EQUIPMENT AND WORKMANSHIP

Laws and Certificates: All materials, appliances and types of methods of construction shall be in accordance with the Specifications. All work done requiring approval hereunder will be accepted only after the Contractor shall have obtained all the necessary permits and shall have furnished the Engineer with all the necessary certificates of approval issued by the Official heads of the appropriate Village, Department, or other public body having jurisdiction thereof.

3.3 PAYMENTS

- A. The Contractor is directed to MEASUREMENT, PAYMENT AND DEFINITION OF WORK ITEMS, Section 01601 of the Agreement for a description of what is included under each Bid item.
- B. Partial payment will be made to the Contractor of the estimated value of the Work done, such value being computed on the basis of the unit prices and lump sums established in the schedule of prices.

3.4 RECORD DRAWINGS AND OTHER DOCUMENTS

The Contractor shall provide an “As Built” survey verifying the location of the walk and other site elements, including spot elevations.

END OF SECTION

SECTION 01039**COORDINATION AND MEETINGS**

1.0 GENERAL

1.1 SECTION INCLUDES

- A. Coordination
- B. Preconstruction conference
- C. Progress meetings

2.0 PRODUCTS

NOT USED

3.0 EXECUTION

3.1 COORDINATION

- A. Coordinate schedules, submittals, and work of the various sections of Specifications to effect efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate completion and clean-up of work.
- D. Correct all defective work and work not in accordance with Contract Documents.

3.2 PRECONSTRUCTION CONFERENCE

- A. Engineer will schedule a conference after Notice of Award.
- B. Attendance Required: Owner, Engineer and Contractor.
- C. Agenda:
 - 1. Execution of Owner - Contractor Agreement.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Submission of list of Subcontractors, list of Products, Schedule of Value, and Progress Schedule.
 - 5. Designation of personnel representing the parties in Contract.

6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders and Contract close-out procedures.
7. Submittal of any concerns or anticipated problems with construction activities as presented in the Bid Documents. Lack of submittal of concerns in writing at the preconstruction conference signifies acceptance of the Construction Drawings, Plans and Specifications as presented.
8. Scheduling.

3.3 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the work at maximum monthly intervals. Field meetings with the Engineer shall take place weekly.
- B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within two days to Engineer, Owner, participants, and those affected by decisions made.
- C. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner's Representative, Engineer, as appropriate to agenda topics for each meeting.
- D. Agenda:
 1. Review of work progress.
 2. Field observations, problems, and decisions.
 3. Identification of problems that may impede planned progress.
 4. Review of submittals, schedule and status of submittals.
 5. Review of off-site fabrication and delivery schedules.
 6. Maintenance of progress schedule.
 7. Corrective measures to regain projected schedules.
 8. Planned progress during succeeding work period.
 9. Coordination of projected progress.
 10. Maintenance of quality and work standards.
 11. Effect of proposed changes on progress schedule and coordination.
 12. Other business relating to work.

- 4.0 The cost for Field Engineering shall be considered incidental to the other cost items and will not be paid for separately.

END OF SECTION

SECTION 01050
FIELD ENGINEERING

1.0 SUBMITTALS

On request, submit documentation verifying acceptance and accuracy of the existing site conditions provided on the Construction Drawings.

2.0 PROJECT RECORD DOCUMENTS

Maintain a complete and accurate log of control and survey work as it progresses.

3.0 EXAMINATION

Verify locations of survey control points prior to starting Work. Promptly notify Engineer of any discrepancies discovered.

4.0 SURVEY REFERENCE POINTS

Engineer will provide survey and elevation reference points on the Construction Drawings. Contractor shall provide their own surveyor to accomplish construction to the lines and grades required by the Construction Documents. Control datum for survey is that established by Engineer on the Construction Drawings.

5.0 SURVEY REQUIREMENTS

Provide field engineering services. Utilize recognized engineering survey practices.

6.0 MEASUREMENT AND PAYMENT

The work of this Section shall be considered incidental to the lump sum cost of other Bid Items and will not be paid for separately.

END OF SECTION

SECTION 01300**SUBMITTALS****1.0 SUBMITTAL PROCEDURES**

- A. Transmit each submittal with Engineer accepted form.
- B. Sequentially number the transmittal forms. Resubmittals to have original number with an alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or Supplier: Pertinent Drawing Sheet and Detail Number(s), and Specification Section Number, as appropriate.
- D. Apply Contractor's stamp, signed or initialed certifying that review, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite the Project, and deliver to Engineer. Coordinate submission of related items.
- F. Identify variations from Contract Documents and product or system limitations which may be detrimental to successful performance of the completed work.
- G. Provide space for Contractor and Engineer review stamps.
- H. Revise and resubmit submittals as required, identify all changes made since previous submittal.
- I. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

2.0 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial progress schedule in duplicate within 10 days after date of Notice of Award for Engineer's review.
- B. Revise and resubmit as required.
- C. Submit revised schedules with each Application for Payment, identifying changes since previous version.
- D. Submit a horizontal bar chart with separate line for each major section of work or operation, identifying first work day of each week.
- E. Show complete sequence of construction by activity, identifying work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
- F. Indicate estimated percentage of completion for each item of work at each submission.
- G. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates, including those finished by Owner and under allowances.

3.0 PROPOSED PRODUCTS LIST

- A. Within 15 days after date of Notice of Award, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number for each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

4.0 PRODUCT DATA

- A. Submit the number of copies which the Contractor requires, plus two copies which will be retained by the Engineer.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this project.
- C. After review, distribute in accordance with Article on Procedures above and provide copies for Record Documents.

5.0 SAMPLES

Submit samples to illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

6.0 MANUFACTURERS' INSTRUCTIONS

- A. When specified in individual Specification Sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.
- B. Identify in writing any and all conflicts between manufacturers' instructions and maintenance requirements and Contract Documents.

7.0 MANUFACTURERS' CERTIFICATES

- A. When specified in individual Specification Sections, submit manufacturers' certificate to Engineer for review, in quantities specified for Product Data.
- B. Indicate whether material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product, but must be acceptable to Engineer.

8.0 MEASUREMENT AND PAYMENT

The work of this Section shall be considered incidental to the lump sum cost of other Bid Items and will not be paid for separately.

END OF SECTION

SECTION 01400
QUALITY CONTROL

1.0 QUALITY ASSURANCE / CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, notify the Engineer in writing as soon as possible and request clarification from Engineer before proceeding.
- D. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

2.0 REFERENCES

- A. Conform to reference standard by date of issue current on date for receiving Bids.
- B. Should specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any Reference Document.

3.0 FIELD SAMPLES

- A. Install field samples at the site as required by individual Specifications Sections for review.
- B. Acceptable samples represent a quality level for the work.
- C. Where field sample is specified in individual Sections to be removed, clear area after field sample has been accepted by Engineer.

4.0 INSPECTION AND TESTING LABORATORY SERVICES

- A. Owner will employ and pay for Engineer to perform inspection and testing services.
- B. Engineer will perform inspections, tests, and other services specified in individual Specification Sections.

- C. Cooperate with Engineer and furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.
 - 1. Notify Engineer 24 hours prior to expected time for operations requiring services.
 - 2. Make arrangements and pay for additional samples and tests required for Contractor's use.
- D. Retesting required because of non-conformance to specified requirements shall be performed by the same firm on instructions by the Engineer. Payment for retesting will be charged to the Contractor by deducting inspection or testing charges from the Contract Price.

5.0 MEASUREMENT AND PAYMENT

The work of this Section shall be considered incidental to the lump sum cost of other Bid Items and will not be paid for separately.

END OF SECTION

SECTION 01500**CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS****1.0 TEMPORARY UTILITIES**

Provide and pay for all temporary power service required from utility source.

2.0 TEMPORARY CONTROL

Maintain barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from Construction operations. Provide protection for plant life designated to remain. If plant life is damaged, it shall be replaced at no cost to Owner. Protect non-owned vehicular traffic, stored materials, site and structures from damage.

Grade site to drain as provided for in Section 01590. Maintain excavations free of water. Provide, operate, and maintain pumping equipment. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion in accordance with the Plans. Provide security provisions to protect work and equipment from unauthorized entry, vandalism, or theft.

3.0 CONSTRUCTION FACILITIES

- A. Access Roads – Maintain temporary roads accessing public thoroughfares to serve Construction area. Provide means of removing mud from vehicle wheels before entering streets or roadways.
- B. Progress Cleaning – Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition. Remove waste materials, debris, and rubbish from site weekly and dispose off-site.
- C. Project Identification – No signs are allowed without Owner permission except those required for safety or by law.
- D. Removal of Utilities, Facilities, and Controls – Remove temporary above grade or buried utilities, equipment, facilities and materials, prior to substantial completion. Clean and repair damage caused by installation or use of temporary work. Restore existing facilities used during Construction to original condition. Restore permanent facilities used during Construction to specified condition.

4.0 MEASUREMENT AND PAYMENT

The work of this Section shall be considered incidental to the lump sum cost of other Bid Items and will not be paid for separately.

END OF SECTION

SECTION 01570
TRAFFIC REGULATION

1.0 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles and nearby residents to their homes.
- B. Monitor parking of construction personnel's vehicles. Maintain vehicular access to and through parking areas.
- C. Prevent parking on or adjacent to access roads or in non-designated areas, including parking equipment on wet soils or underneath trees. Remediation of compacted soils due to parking of Contractor vehicles shall be at the expense of the Contractor.

2.0 HAUL ROUTES

Site access shall be as noted on the Drawings and shall be limited to the work limits.

3.0 MEASUREMENT AND PAYMENT

The work of this Section is incidental to the Contract lump sum Bid Items. No separate payment shall be made for Traffic Regulation.

END OF SECTION

SECTION 01590**DEWATERING, STORMWATER, FLOOD AND
GROUNDWATER CONTROL AND MANAGEMENT****1.0 WATER CONTROL**

The Contractor shall, at all times during Construction, provide and maintain ample means and devices with which to promptly remove and properly dispose of all water entering the excavations or other parts of the Work, until all Work to be performed therein has been completed. Methods for the control of groundwater and removal of stormwater shall be the Contractor's responsibility. The Contractor shall be aware that Construction activities occur within the limits of the water level fluctuation zone for the stream corridor. Contractor shall be responsible for any damages to Project materials or delays to Project activities resulting from water entering the excavation or other parts of the Work during the Construction period. Contractor is also responsible for water control and plant establishment methods during the period of plant establishment.

2.0 DISPOSAL

Sanitary sewers shall not be used for disposal of water drained or pumped from Construction areas. No water containing settled solids shall be discharged into storm sewers, creeks, or off-site drainage ways.

3.0 MEASUREMENT AND PAYMENT

The cost of dewatering, stormwater, flood and groundwater control and management equipment and operations shall be incidental to the various items of the Contract Work and will not be paid for separately.

END OF SECTION

SECTION 01600
MATERIAL AND EQUIPMENT

1.0 TRANSPORTATION AND HANDLING

- A. Transport and handle products in accordance with manufacturers' instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement or damage.

2.0 STORAGE AND PROTECTION

- A. Store and protect products in accordance with manufacturers' instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate-controlled enclosures.
- B. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- C. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

3.0 MEASUREMENT AND PAYMENT

The work of this Section is incidental to the Contract lump sum Bid Items. No separate payment shall be considered by the Owner and none shall be made for any work required by this Section.

END OF SECTION

SECTION 01601**MEASUREMENT, PAYMENT AND DEFINITION OF WORK ITEMS****1.0 GENERAL**

The work included in each Bid Item will be as defined in this Section and the related Specifications. Payment for each item will be made at the unit price or lump sum price bid for that item for the lines and grades shown on the Drawings. No additional payment will be made for any item constructed outside these lines. Measurement for payment will be as defined in this Section. *The cost for all other related or incidental work required by the Plans and Specifications shall not be measured or paid for as a separate item, but shall be included as part of the unit price or lump sum price to which the work pertains.* Failure to list all such related or incidental work in the description of Bid Items shall not invalidate this stipulation.

Submittal of receipts may be requested to verify utilization of materials required to complete the tasks required under each task. These material verifications may include topsoil, seed blankets, plants, concrete, stone, in addition to any other materials required to complete construction activities. Discrepancies between materials usage sufficient to adequately complete tasks will be verified in the field by the Engineer. The Engineer will have final say in matters pertaining to the need for verification of adequate material usage for task completion prior to work completion and submittal of pay requests.

There will be no separate Bid Item for meetings, security, Contractor quality control testing, surveys, Record Drawings, reports, retesting and reconstruction due to nonacceptance of work, insurance, equipment repair, delivery or transporting costs, or weather delays.

All work shall conform to the applicable portions of the Contract Documents. The Contractor shall furnish all necessary equipment, material and labor to complete the work specified in this Section.

1.1 DEWATERING MANAGEMENT AND DIVERSION OF WATER

The work is located along the banks of a drainage corridor. Fluctuation of the creek water surfaces occurs frequently. Dewatering and any required diversion of water shall be considered incidental to the park construction and shall include removal of water from the site or excavation as necessary to adequately complete and establish the work. This shall include all excavated areas near or below the water table. This work includes, but is not limited to, all pumps, maintenance, piping, trenching and water diversions and handling as necessary. The Contractor is responsible to manage this water and saturated spoil as necessary to complete the regrading to the lines and grades illustrated on the Drawings, and to accomplish vegetation establishment as required by these Specifications. No separate payment will be made for this item.

1.2 SOIL EROSION AND SEDIMENT CONTROLS

The Bid Items for wetland repair work shall include all work, labor, materials and equipment necessary to implement the Soil Erosion and Sedimentation Control Plan. This item shall be considered incidental to the construction of the park and no separate payment will be made for this item.

1.3 TRAFFIC CONTROL

The Bid Items for Pocket Park construction shall include all work, labor, materials and equipment necessary for Traffic Control during all phases of Construction. Traffic control shall be considered incidental to the Construction and no separate payment will be made for this item.

2.0 DESCRIPTION OF BID ITEMS

2.1 Bid Item No. 1.0: GENERAL CONDITIONS / MOBILIZATION / DEMOBILIZATION

This work includes, but is not limited to, preparation and maintenance of temporary facilities such as access, storage areas; planning meetings; moving of construction materials, tools, supplies, equipment, accessories, and personnel to the job site; setting up the Contractor's camp, other construction facilities, toilet facilities, and all traffic controls. The cost of Design, Construction, and maintenance of any access or haul roads to or within the work site shall also be included in this price. Also included in the price shall be the removal from the job site of all Construction equipment, accessories, materials, supplies, appurtenances, Construction debris, and the like upon completion of the work and restoration of access areas. This bid item includes all costs associated with demobilization and project closeout. The cost of any additional items of work not listed as a specific Bid Item, for both the Base Bid and Alternate (Add) Bid Items, shall be considered incidental to the project and shall be included in the lump sum of these or other items in the Schedule of Prices.

2.2 Bid Item Nos. 2.0 and 2.A: SITE PREPARATION AND DEMOLITION

The lump sum cost for this work covered by Section 02100, SITE PREPARATION AND DEMOLITION, shall include but is not limited to preparing the work site for Construction including clearing and grubbing, tree, roots and stump removal, hauling and disposing of debris, protection of existing structures, and site restoration. The cost for furnishing all labor, equipment, and materials, and performing all operations in connection with the miscellaneous site work as shown on the Drawings and in accordance with these Specifications subject to the terms and conditions of the Contract shall also be included in this price. The cost of any additional items of work not listed as a specific Bid Item shall be considered incidental to the project and shall be included in the lump sum of these or other items in the Schedule of Prices.

2.3 Bid Item Nos. 3.0 and 3A: EARTHWORK AND EMBANKMENT

The lump sum cost for this work covered by Section 02200, EARTHWORK AND

EMBANKMENT, shall include but is not limited to stripping, stockpiling materials, excavation, grading, disposal of unsuitable and all excess material, and all other earthwork within the project limits. The cost for work consisting of foundation preparation, embankments, site drainage, and other earthwork as may be necessary to complete the work, as shown on the Drawings, as specified herein, and as directed by the Engineer shall also be included in this lump sum price. The cost of any additional items of work not listed as a specific Bid Item shall be considered incidental to the project and shall be included in the lump sum prices of these or other items in the Schedule of Prices.

The unit of measurement for payment of Earth Excavation will be lump sum.

Unit of Measurement: Lump Sum

2.4 Bid Item Nos. 4.0 and 4.A: TOPSOIL (ROOTING MEDIA) INSTALLATION

The lump sum cost for this work covered by Section 02226, TOPSOIL (ROOTING MEDIA) INSTALLATION, shall include but is not limited to furnishing, transporting, and installing rooting media as shown on the drawings and in accordance with Section 02226, TOPSOIL (ROOTING MEDIA) INSTALLATION. Topsoil (Rooting Media) is to be placed in the Geogrid Lifts, Upland Native Seeding Zones, Zone A and Zone B Planting and Seeding Zones, and in other areas disturbed by construction. The cost of any additional items of work not listed as a specific Bid Item shall be considered incidental to the project and shall be included in the lump sum prices of these or other items in the Schedule of Prices.

The unit of measurement for payment of topsoil (rooting media) installation will be lump sum.

Unit of Measurement: Lump Sum

2.5 Bid Item Nos. 5.0 and 5.A: GEOTEXTILE FABRIC

Geotextile installed and accepted in accordance with Section 02272, GEOTEXTILE FABRIC shall be paid for as a lump sum for Base Bid Item No. 5.0 and for Alternate (Add) Bid Item 5.A in the bidding schedule. The lump sum cost shall include, but is not limited to, furnishing and installing geotextile material to separate soil from stone fill, and for construction of stone filled gabion baskets, stone rip rap and vegetated geogrids. The cost of any additional items of work not listed as a specific Bid Item shall be considered incidental to the project and shall be included in the lump sum prices of these or other items in the Schedule of Prices.

The unit of measurement for payment of Geotextile Fabric will be lump sum.

Unit of Measurement: Lump Sum

2.6 Bid Item Nos. 6.0 and 6.A: STONE RIPRAP EROSION PROTECTION

SECTION 01730**CLEANING UP****1.0 CLEANUP DURING CONSTRUCTION**

- A. Adjacent areas affected thereby shall be kept clean and all rubbish, surplus materials, and unneeded construction equipment shall be removed promptly and all damage repaired so that the public and property owners will be inconvenienced as little as possible.
- B. Where material or debris has washed or flowed into or been placed in existing watercourses, ditches, gutters, drains, pipes, structures, work done under this Contract, or elsewhere during the course of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the Work, and the ditches, channels, drains, pipes, structures, and work, etc., shall, upon completion of the work, be left in a clean and neat condition.
- C. The restoration of existing property or structures shall be done as promptly as practicable as work on each stage progresses and shall not be left until the end of the Contract period.
- D. The Contractor and his Subcontractor's equipment must be washed and cleaned prior to entering any township, county, state or federal roads, and prior to any construction activity on top of or near the existing and proposed erosion control blanket.
- E. All environmental damages caused by Contractor or his Subcontractors either by direct action or negligence shall be cleaned to the full satisfaction of the Owner. This applies to water, soil and structures that may become contaminated due to spills, damages and the like.

2.0 CLEANUP AFTER COMPLETION OF THE WORK

- A. Tear down and remove all temporary structures built by Contractor; remove all temporary works, tools, and machinery or other construction equipment; remove, acceptably disinfect, and cover all organic matter and material containing organic matter in, under, and around privies, houses, and other buildings; remove all rubbish from any grounds which the contractor has occupied; and leave the roads and all parts of the premises and adjacent property affected by Contractor's operations in a neat and satisfactory condition. The construction staging areas disturbed or damaged by the Contractor shall be finish graded and seeded with IDOT 1B "Low Maintenance Lawn Mixture" prior to leaving the site.
- B. The work of this section is incidental to the contract lump sum Bid Items. No separate payment shall be considered by the Owner and none shall be made for any work required by this section.

END OF SECTION

SECTION 01200**SITE PREPARATION AND DEMOLITION**

1.0 GENERAL

1.1 SCOPE

The Work covered by this Section includes preparing the work site for Construction including clearing and grubbing, hauling and disposing of debris, protection of existing structures, and site restoration. The Contractor is responsible for furnishing all labor, equipment, and materials, and performing all operations in connection with the miscellaneous site work as shown on the Drawings and in accordance with these Specifications subject to the terms and conditions of the Contract.

1.2 DEFINITIONS

- A. Structures and Surface Features
Existing structures and surface features including buildings, pavements, curb and gutter, signs, posts, fences, trees, shrubs, landscaped surface features, and other miscellaneous items.
- B. Utilities
Existing gas mains, water mains, steam lines, electric lines and conduits, telephone and other communication lines and conduits, sewer pipe, cable television, other utilities and appurtenances.
- C. Clearing and Grubbing
Cutting and disposing of trees, brush, windfalls, logs, and other vegetation, and removing and disposing of roots, stumps, stubs, grubs, logs, and other timber.
- D. Debris
All material that is removed from the work area and is not suitable to be reused or recycled as determined by the Engineer.

1.3 RELATED SECTIONS

- A. Section 01400 Quality Control
- B. Section 02200 Earthwork and Embankment

1.4 SUBMITTALS

The Contractor's Quality Control organization shall be responsible for certifying that all submittals are in compliance with the Contract requirements.

- A. A Work Plan detailing the procedures proposed for the accomplishment of the Work will be provided by the Contractor at least fourteen (14) days prior to the date the work is to commence. The procedures shall provide for safe conduct of the Work, equipment per type of material for excavation, filling, and compaction,

careful removal and disposition of materials specified to be salvaged, protection of property which is to remain undisturbed, coordination with other work in progress, and disconnection of utilities. The Work Plan shall also include, but is not limited to, the following items:

1. Name and location of debris disposal site.
2. Manifest forms for debris removal.

B. Equipment Data

Prior to starting work, a list of all equipment, tools, and machines, including their sizes, capacities and operating speeds, to be used in the performance of the work shall be submitted. All plant and equipment shall be maintained in satisfactory working conditions at all times.

C. Traffic Control Plan

Prior to starting work, the Contractor shall submit a plan to ensure the safety of pedestrian, bicycle and vehicle traffic along the proposed access route, particularly where the access route crosses public walkways and bicycle paths. The Contractor shall coordinate the plan with the Owner as necessary and shall outline the placement of all signs and traffic control devices.

D. Environmental Protection Plan

The Contractor shall submit an environmental protection plan prior to starting Work.

The Environmental Protection Plan shall meet the requirements of Illinois NPDES general permit rules for storm water runoff for construction sites. The plan shall also include but not be limited to the following:

1. A list of Federal, State and local laws, regulations, and permits concerning environmental protection, pollution control and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations and permits.
2. Methods for protection of features to be preserved within authorized work areas. The Contractor shall prepare a listing of methods to protect resources needing protection, i.e., trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archaeological and cultural resources.
3. Procedures to be implemented to provide the required environmental protection and to comply with the applicable laws and regulations. The Contractor shall set out the procedures to be followed to correct pollution of the environment due to accident, natural causes or failure to follow the procedures set out in accordance with the environmental protection plan.
4. Permit or license number for the approved disposal site and all waste transporters to be used for the project. The approved disposal site must be in compliance with NEPA and all other applicable environmental laws and regulations.

5. Drawings showing locations of any proposed temporary excavations or embankments for haul roads, material storage areas, structures, and stockpiles of excess or spoil materials.
6. Environmental monitoring plans for the job site, including land, water, air, and noise monitoring.
7. Work site and access roads traffic control plan will be prepared by the Contractor and submitted for approval to the Engineer prior to Construction.
8. Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas.
9. The plan shall include an erosion control plan. This plan must address each of the items listed under “Storm Water Run-Off Associated with Construction Activity”, 35 Illinois Administrative Code, Subtitle C, Chapter I.

E. Implementation

After receipt of Notice to proceed, the Contractor shall submit in writing the above Environmental Protection Plan which should also include a map of the site with site boundaries, waterways on and adjacent to the site, 100-yr flood plains, soil types, location of vegetative cover, location and dimensions of storm water drainage systems and natural drainage patterns on, and adjacent to the site, locations of utilities structures and roads, site topography, both existing and planned, and any potential areas where point sources may enter the groundwater. A map of the final site conditions and a site Construction plan that includes: locations and dimensions of land disturbing activities, locations of soil stockpiles, locations and dimensions of erosion control measures, schedule with start and finish dates of each land disturbing activity, including the installation of erosion control measures. Provisions and a schedule for maintenance of the erosion control measures during Construction should also be included in the plan. The Owner will review the plan and return it to the Contractor who will then submit the Notice of Intent (NOI) to IEPA after the plan has final approval. No Construction will take place before the submission of the NOI. Approval of the Contractor's plan will not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures.

1.5 MEASUREMENT AND PAYMENT

- A. All costs for items of work described in this Section, which are not specifically assigned to a particular lump sum or unit price payment item, shall be included in the lump sum price for Bid Item No. 2.0 (Site Preparation and Demolition) of the Bidding Schedule.

B. Clearing and Grubbing

Clearing and grubbing will not be measured for payment. All costs for clearing and grubbing shall be included in the lump sum contract price for Bid Item No. 2.0 (Site Preparation and Demolition) of the Bidding Schedule. No separate payment will be made for coordination, operations, and activity required by and with the Owner for tree and shrub removal, relocation, salvaging, or protection.

C. Existing Structure Removal and Demolition

Material removed from the demolition of existing structures shall not be measured for payment, but will be paid for on a lump sum basis. All costs for removal and demolition of existing structures shall be paid for at the lump sum price for Bid Item No. 2.0 (Site Preparation and Demolition) of the Bidding Schedule and shall constitute full compensation for all dewatering, temporary shoring and bracing, protection of existing and new structures, and replacement of damaged utilities not included in the Contract for Work. Off-site disposal of unusable material shall be incidental to Existing Structure Removal and Demolition. All excavated fill materials not used in the construction works shall be disposed of offsite in an appropriate disposal location in accordance with all applicable regulations and rules.

D. Stripping Topsoil

All costs for stripping, hauling, and off-site disposal of topsoil shall be included in the contract lump sum price for Bid Item No. 2.0 (Site Preparation and Demolition) of the Bidding Schedule.

E. Debris

All costs associated with debris disposal shall be considered incidental to the cost of site preparation and demolition and included in the contract lump sum price for Bid Item No. 2.0 (Site Preparation and Demolition).

F. Dewatering

The Contractor shall establish and maintain dewatering for all work performed under this Section to assure compliance the Section 01590, DEWATERING, STORMWATER, FLOOD AND GROUNDWATER CONTROL AND MANAGEMENT.

1.6 PROJECT/SITE CONDITIONS

Do not block or obstruct roads, streets, bicycle paths, or sidewalks with excavated or grubbed materials.

2.0 PRODUCTS

NOT USED

3.0 EXECUTION

3.1 PROTECTION

- A. Protect existing utilities against damage.
- B. Contact J.U.L.I.E and the Village of Lincolnshire to locate utilities before beginning excavation.
- C. Locate existing underground utilities by hand excavation.
- D. If Contractor encounters on-site utilities, not indicated on project Drawings, stop work and notify the Engineer. If an unmarked utility is damaged, repair costs shall be incidental to site preparation and demolition unless Contractor can prove compliance with 3.1 Paragraphs .A, B and C. Non-marked utilities encountered without damage or through non-negligent Contractor procedures may constitute a changed condition.
- E. Cap or remove and relocate services. Protect, support, and maintain conduits, wires, pipes or other utilities that are to remain in place during Work.
- F. The Contractor will not disturb any trees or disturb the areas within their drip lines, except for trees specifically identified on the Drawings to be relocated or removed. Any trees or shrubbery damaged shall be replaced in kind. This Work shall be considered incidental to the Construction, and no separate payment shall be made.

3.2 PREPARATION

- A. Provide three (3) working days' notice, prior to beginning Construction, to Owners of existing utilities, structures, and surface features.
- B. Remove obstructions such as mounds of dirt, stone or debris located within limits of Construction. Obstructions such as street signs, culverts, end walls, advertising signs, mail boxes, and guard posts may be removed if replaced when need for removal is completed. Replace to original condition.

3.3 CLEARING AND GRUBBING

- A. Clearing operations shall consist of the complete removal and disposal of all obstructions above the ground surface that obtrude, encroach upon, or otherwise obstruct the work. It is the intent of this contract to disturb only those trees, shrubs, and vegetation within the work limits as is necessary to complete the work. The Contractor is required to work closely with the Engineer to identify, mark, and protect such vegetation inside the Work limits as specified in Section 3.1, Paragraph F.
- B. Clearing and grubbing shall be performed within the work limits as necessary to construct project features. Clearing shall consist of the removal of brush, vegetation, shrubs, trees, stones, concrete and debris. Grubbing shall consist of

the removal and disposal off-site of stumps, roots larger than three (3) inches in diameter, matted roots and other objectionable matter. Grubbing also entails the filling of grubbing holes.

1. Remove cleared material from site.
 2. Clearing and grubbing limits shall be as shown on Drawings.
- C. Grub to a depth of not less than twelve (12) inches below original ground surface or subgrade.
- D. Do not remove or cut down trees unless they are within the restoration area excavation limits and specifically identified for removal on the Drawings. If the Contractor finds it necessary to remove any other trees, he shall replace them in kind upon completion of the work. The Contractor shall obtain permission from the Village Engineer prior to performing any tree removal.
- E. Do not trim trees unless located within Work limits shown on Drawings. Cut interfering tree roots and branches one (1) inch or greater in diameter perpendicular to direction of growth on tree side of trench. The Contractor shall obtain permission from the Village Engineer prior to performing any tree trimming.
- F. Dispose of materials removed by clearing and grubbing in accordance with applicable regulations.
- G. Remove rocks six inches and larger from site, or stockpile for reuse on the site.

3.4 STRIPPING

A. General

After inspection and approval by the Engineer of cleared and grubbed areas, stripping may proceed. Prior to excavation, all topsoil shall be stripped and stored if suitable and needed for later use. Topsoil shall be kept separate from other unusable excavated materials, brush, litter, objectionable weeds, roots, stones larger than three (3) inches in diameter and other materials that would interfere with planting and maintenance operations. Unusable material shall be removed from the site and properly disposed of at no additional cost to the Owner.

- B. Cut or mow and remove grass, weeds, and other vegetation before stripping topsoil.

- C. Remove topsoil to entire depth in areas where construction is to be performed and where grade is to be raised. Stockpile within the Work limits. Stockpile for proper drainage.

- D. Strip stockpile areas of vegetation prior to stockpiling.

- E. Stripped topsoil shall be free from clay, stones, vegetation, and debris.

- F. Storing Topsoil

Stored topsoil shall be protected by tarps and surrounded by hay bales, silt fences, or the runoff shall otherwise be collected and treated in accordance with permit and environmental protection requirements. Where the quantity and quality of topsoil stripped from the Construction area is insufficient and does not

meet Contract requirements, topsoil shall be obtained by the Contractor as borrow, transported and deposited in stockpiles convenient to areas that are to receive the topsoil, or as directed and specified by the Engineer.

3.5 RESTORATION

- A. Restore existing utilities, surface features, and structures to condition equal to condition which existed prior to Construction.
- B. Replace to original condition or better damaged landscape work such as trees, shrubs, and grass within and outside of construction limits in accordance with Section 02226 TOPSOIL (ROOTING MEDIA) INSTALLATION, Section 02930 WETLAND SEEDING, and Section 02952 PLUG PLANTING.

3.6 DISPOSAL OF MATERIAL

- A. Debris
Any timbers, unsatisfactory material and debris within the reach of Construction shall be removed, except as otherwise directed by the Engineer, and upon removal shall become the property of the Contractor. All materials shall be disposed of in conformance with the requirements of the Contract and applicable federal, state, and local law.
- B. All material, including clearing and grubbing debris, stripped topsoil, and existing structure materials not suitable for recycling, removed for the project shall be disposed of in an approved permanent commercial disposal area. Rubbish and debris will be disposed of from the site daily, unless otherwise directed, to avoid accumulation of debris at the site. The Contractor shall obtain permits and approvals for disposal of all waste materials and provide copies of all such permits and approvals to the Engineer.

3.7 QUALITY CONTROL

- A. The Contractor shall establish and maintain quality control for all work performed under this Section to assure compliance with Contract requirements and maintain records of his quality control in accordance with the Section 01400 QUALITY CONTROL for all Construction operations including, but not limited to, the following:
 - 1. Clearing and grubbing;
 - 2. Protection of existing trees, vegetation, structures, utilities and improvements;
 - 3. Demolition of existing structures;
 - 4. Existing stone and concrete recycling operation;
 - 5. Restoration; and
 - 6. Disposal of materials.
- B. A copy of records of inspection, and records of any corrective action taken shall be furnished to the Owner as directed by the Engineer in accordance with the Section 01400 QUALITY CONTROL of these technical provisions and as otherwise directed.

END OF SECTION

SECTION 02200**EARTHWORK AND EMBANKMENT**

1.0 GENERAL

1.1 SCOPE

The work of this Section includes stripping, stockpiling materials, excavation, grading, disposal of unsuitable material, and all other earthwork within the project limits. This Section also describes work consisting of foundation preparation, embankments, site drainage, and other earthwork as may be necessary to complete the work, as shown on the Drawings, as specified herein, and as directed by the Engineer.

Satisfactory materials shall consist of soil materials free of the following: roots and other organic matter, trash, debris, frozen materials, and stones not larger than three (3) inches in any dimension. Satisfactory materials shall also be called acceptable materials in these Specifications.

1.2 DEFINITIONS

Satisfactory materials shall meet TACO Tier 1 soil remediation objectives.

Unsatisfactory materials are materials which are considered unsuitable for this work; for example, rubbish, vegetation, construction debris, highly organic soils, materials not able to be reused or recycled as defined in the Section 02100 SITE PREPARATION AND DEMOLITION, or any other material not meeting the definition of satisfactory materials.

Topsoil shall meet the requirements as defined in the Section 02226 TOPSOIL (ROOTING MEDIA) INSTALLATION.

1.3 SUBMITTALS

The Contractor shall submit a list of equipment to be used for the work required under this Section.

The Contractor shall submit testing reports for suitability of in-place soil, backfilled materials, compaction of materials, and records of measurement of quantities for payment.

Inspection

Fill will be inspected by the Engineer either at the source of supply or as delivered. The Engineer may direct the Contractor to run additional tests for the fill, at no cost to the Owner, if there is uncertainty about the acceptability of the material when the Engineer conducts further inspections.

1.4 MEASUREMENT AND PAYMENT – EARTH EXCAVATION and EMBANKMENT

Earth Excavation and Embankment shall be a Lump Sum pay item as described in Section 01601 (Bid Item 3.0). All costs associated with earth excavation, hauling, disposal of excess fill, and temporary stockpiling of excavated materials shall be included in the contract lump sum for Bid Item No. 3.0 (Earthwork and Embankment) of the Bidding Schedule.

- B. Grading of Adjacent Ruts, Depressions and Ties to Existing Grade Lines
All excavation and filling outside and adjacent to the Construction Work area and features, for ties to existing grade lines and restoration to achieve smooth grades, are incidental to Construction Work items. No separate measurement for payment will be made for this work.
- C. Drainage and Dewatering
No separate payment will be made for drainage and dewatering. This work shall be incidental to the Construction, and shall be included in the bid price for the applicable item of Work in the Bidding Schedule.

1.5 STOCKPILE, AND DISPOSAL AREAS

The Contractor may stockpile material within the Work limits; however, the Contractor will not stockpile material on top of existing underground utilities or below overhead existing utilities, nor will the Contractor stockpile material such that existing utilities are damaged. Stockpiles shall not be placed on existing tree roots and shall not damage any trees designated to remain. No stockpile shall remain in place after Construction. The environmental requirements of these Specifications apply to stockpiles.

Unsatisfactory and excess satisfactory material shall be disposed of off-site in accordance with the environmental requirements of these Specifications. Disposal of both satisfactory and unsatisfactory material shall be the Contractor's responsibility.

1.6 FILL AND BACKFILL PROTECTION

Newly graded areas shall be protected from traffic and erosion, that may occur from any cause, prior to acceptance of the Work and shall be repaired and grades reestablished to the required elevations and slopes. All Work shall be conducted in accordance with the environmental protection requirements of the Contract.

1.7 CONSTRUCTION LIMITS

The Contractor shall perform all work within the Construction limits as shown on the Drawings. The Contractor shall protect existing trees and vegetation beyond the excavation limits illustrated on the Plans and especially within the existing wetland limits. The cost of this Work shall be considered to be incidental to Bid Item No. 3.0. No personnel or equipment will be allowed on Village traffic lanes, shoulders, or sidewalks except when streets are closed to traffic. No trees, shrubs or any other vegetation outside the Construction limits shall be disturbed.

2.0 PRODUCTS

NOT USED

3.0 EXECUTION

3.1 GENERAL EARTHWORK

Strip topsoil in accordance with the requirements of Section 02100 SITE PREPARATION AND DEMOLITION.

Excavation shall consist of removal of materials encountered within the project limits in preparing the foundations to the lines, grades, and elevations indicated on the Drawings as specified herein, or as directed by the Engineer. Excavation shall consist of removal of material for structures to the sections indicated on the Drawings or as directed by the Engineer and removal of unsatisfactory materials. Care shall be exercised by the Contractor not to excavate below the grades shown on the Drawings or as directed by the Engineer. Grading shall be in conformity with the typical sections shown and the tolerances specified in the Grade Tolerances paragraph. Any excessive excavation, as determined by the Engineer, due to the fault or negligence of the Contractor, shall be backfilled to grades shown on the drawings with satisfactory, thoroughly compacted material of the type removed. Corrective measures shall be done by and at the expense of the Contractor.

Excavated materials meeting the definition of satisfactory materials which are suitable and approved for incorporation into the fill areas shall be placed directly therein or stockpiled for future use within the limits of the work, as shown on the Drawings, unless otherwise directed by the Engineer.

Materials encountered within the limits of the Work which are unsatisfactory as foundation or embankment material will be ordered wasted and shall be disposed of off-site by the Contractor. Unsatisfactory materials shall be excavated below grade and replaced with satisfactory materials, unless otherwise specified, as directed by the Engineer.

After excavation or stripping to the extent indicated on the Drawings or otherwise required, cavities or depressions shall be broken down, where so directed, to flatten out the slopes. Immediately prior to the placement of fill material, the entire earth surface on or against which fill is to be placed, shall be thoroughly broken to a depth of six (6) inches. The foundation shall be cleared of unsatisfactory material. Pondered water shall be drained before placement of fill.

Unless otherwise directed, the thickness of fill layers before compaction shall be not be more than eight (8) inches. When, in the opinion of the Engineer, the surface of any compacted layer is too smooth to bond properly with the succeeding layer, it shall be scarified to the satisfaction of the Engineer before the succeeding layer is placed. The gradation and distribution of materials throughout the compacted project limits shall be such that they will be free from lenses, pockets, streaks, and layers of material differing

substantially in texture or gradation from surrounding material. Backfill material within five (5) feet of the proposed drop structures shall be low plasticity clay.

No fill shall be placed upon natural ground or previously placed fill which is frozen or covered with snow or ice. Under no circumstances shall frozen earth, snow or ice be placed in the embankments, fills, or backfills.

Each lift of material shall be uniformly compacted to a minimum of 95% of the maximum dry density in accordance with ASTM D 698, Standard Proctor measurement. A Laboratory Standard Proctor test shall be performed on representative, satisfactory material from potential borrow sites and other fill sources.

The moisture content of the material shall lie within 3%(+/-) of the optimum moisture content, as defined by ASTM D 698, at the time of compaction. If, in the opinion of the Engineer, the material is too dry for proper compaction, the Contractor shall pre-wet the material or uniformly distribute sufficient moisture in each layer before rolling to permit the desired compaction. Material that is too wet shall be spread on the embankment and permitted to dry, assisted by disking, if necessary.

3.4 QUALITY CONTROL

The Contractor shall establish and maintain quality control for Work under this Section to assure compliance with Contract requirements.

END OF SECTION

1.00 GENERAL

1.01 SUMMARY

Section Includes:

1. All cast-in place concrete walks.

1.02 SUBMITTALS

Laboratory Test Reports: Submit two (2) copies of laboratory test reports of concrete materials and mix design tests 30 days prior to any concrete work.

1.03 QUALITY ASSURANCE

A. Codes and References Standards: Comply with the provisions of the following codes, specifications and standards, except as otherwise specified:

1. ACI 301 - "Specifications for Structural Concrete for Buildings."
2. ACI 304- "Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete."
3. Comply with requirements of all authorities having jurisdiction.

B. Concrete Testing Service

1. Employ at Contractor's expense, a testing laboratory to design concrete mixes.
2. The Owner will employ a separate testing laboratory to perform all other tests and to submit test reports.
3. Materials and installed work may require testing and re-testing at any time during the progress of the Work. Re-testing of rejected materials and installed Work shall be done at the Contractor's expense

1.04 PROJECT CONDITIONS

A. Traffic Control

1. Maintain access for vehicular and pedestrian traffic as required for other construction activities. Allow free access to material stockpiles and facilities at all times.

2.00 PRODUCTS

2.01 AGGREGATE BASE COURSE

A. Material

1. Crushed Stone. Crushed stone shall be the angular arrangement resulting from crushing by mechanical means the following types of rocks quarried from the undisturbed, consolidate deposits: granite and similar phanocrystalline igneous rocks; limestone; dolomite sandstone; or massive metamorphic quartzite, or similar rocks. Dolomite shall be a carbonate rock containing 11.0 percent or more magnesium oxide (MgO). Limestone shall be a carbonate rock containing less than 11.0 percent magnesium oxide (Mg).

B. Gradation:

Sieve Size	% Passing
1 ½"	100
1	95+5
½"	75+15
No. 4	43+13
No. 16	25+15
No. 200	8+4

2.01 MATERIALS

A. Forms

1. Either steel or wood, size and strengths to resist movement during concrete placement and to retain horizontal and vertical alignment until removal. Use forms that are straight and free of distortion and defects.
2. Use flexible spring steel forms or laminated boards to form radius bends as required.
3. Coat forms with a non-staining form release agent that will not discolor or deface the surface of the concrete.

B. Reinforcing

Fiber Mesh: "Fibermesh" fibers ½" to ¾" inch long added to each cubic yard of concrete.

C. Concrete Materials

1. Portland Cement: ASTM C150, Type 1. Use only one brand of cement throughout the Project.
2. Aggregates: ASTM C33. Provided aggregates from a single source.
3. Water: Clean, fresh, free from oil, acid, organic matter of other deleterious substances (Potable).
4. Air Entraining Admixture: ASTM C260.
5. Calcium Chloride: Do Not use calcium chloride in concrete.

D. Pre-molded Joint Filler: ASTM D1751, except where joints are shown sealed, D1752.

E. Absorptive Cover: Burlap cloth made from jute or kenaf, weighing approximately 9 oz. per square yard, complying with AASHO M182, Class 3, or cotton mats complying with ASTM C440.

F. Moisture-Retaining Cover: One of the following:

1. Waterproof paper: ASTM C171, Type 1 or Type 2.
2. Polyethylene sheeting: AASHP M171.
3. Polyethylene-Coated burlap.

G. Membrane Forming Curing Compound: ASTM C309, Type 1, non-yellowing type for exposed sunlight condition use.

2.02 PROPORTION AND DESIGN OF MIXES

- A. Submit written reports of proposed mix at least 15 days prior to start to Work. Do not begin concrete production until mixes have been reviewed and approved by the Architect/Engineer.
- B. Design the mix to produce standard weight concrete consisting of Portland cement, aggregate, air-entraining admixture and water to produce the following properties:

1. Compressive Strength: 4000 psi, minimum at 28 days.
2. Maximum Aggregate Size: 1-1/2", ASTM C33, Size 467.
3. Minimum Cement Content: 6 sacks per cubic yard of concrete.
4. Slump Range: 2" to 4".
5. Air Content: 5% to 8%.

2.03 CONCRETE MIXING

- A. Provide ready-mix concrete, comply with the requirements of ASTM C94.

3.00 EXECUTION

3.01 PLACEMENT OF BASE COURSE

A. Description

1. After sub-grade has been complete as described in Section 02200 of these specifications, and has been approved by the owner's soils engineer, roll the surface to a smooth and uniform texture free from lumps, rocks, pockets, soft spots, and spongy areas.
2. The base course shall consist of furnishing and placing one or more courses of aggregate on a prepared sub-grade or sub-base.

B. Placement

1. Place the base course in layers not more than four (4) inches (compacted) in thickness, except that if tests indicate that the desired results are being obtained, the compacted thickness of any layer may be increased to a maximum of eight (8) inches.

C. Compaction

1. The granular material shall be compacted to not less than 100% of the standard laboratory density.
2. The standard laboratory density shall be the maximum density determined in accordance with AASHTO T 99 (Method A or C).
3. If test indicate that the base course does not comply with the density requirements, additional wetting, if necessary, and rolling will be required until the density is obtained.
4. Moisture shall be added to the material during compaction only when it is necessary to increase the percentage of moisture to obtain the required density.
5. Facilities such as slab on grade, sidewalks, roadways and drives be stripped of all vegetation and topsoil. These areas then should be proof rolled using a minimum of twenty ton. All yielding and unstable areas should be excavated and back filled using select fill material consisting of crushed stone CA-6 (as per IDOT standard specifications). All backfill should be placed in maximum loose lifts of eight (8) inches and compacted to a minimum of 75% relative density as per ASTM D4253-83 and D4254-83.

3.02 FORM CONSTRUCTION

- A. Design, erect, support, brace and maintain formwork to support loads.
- B. Design formwork to be readily removable without impact, shock or damage to cast-in-place concrete surfaces and adjacent materials.
- C. Install sufficient lengths of forms to allow continuous progress of the Work and so that forms can remain in place at least 24 hours after concrete placement.

- D. Check completed form work for grade and alignment to the following tolerance:
 - 1. Top of Form Units: Not more than 1/8" in 10'.
 - 2. Vertical Face: Longitudinal axis, not more than 1/4" in 10'.
- E. Clean forms after each use and coat with form releasing agent as often as required to insure separation from concrete without damage.

3.03 PLACING REINFORCEMENT

- A. Clean reinforcement of loose rust and mill scale, earth, ice and other materials, which reduce or destroy bond with concrete.
- B. Accurately position, support, and secure reinforcements against displacement by formwork, construction or concrete placement operations.

3.04 CONCRETE PLACEMENT

- A. General
 - 1. Do not place concrete until sub-grade and forms have been checked for line and grade. Moisten under bed as required to provide a uniform, dampened condition at the time concrete is placed. Do not place concrete around manholes or other structures until they have been brought to the required grade and alignment.
 - 2. Place concrete using methods, which prevent segregation of the mix, and with as little re-handling as possible. Consolidate concrete along the face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcements, or side forms. Use only square faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocation of reinforcing, dowels, and joint devices.
 - 3. Deposit spread concrete in a continuous operation between transverse joints, as far as possible. If interrupted for more than 1/2 hour, place a construction joint. Sections less than 15 feet in length between transverse joints will not be permitted.
- B. Cold Weather Placing
 - 1. Protect concrete work from physical damage or reduced strengths that could be caused by frost, freezing actions or low temperatures, in compliance with ACI 306.
 - 2. Do not place concrete on frozen sub-grade or on sub-grade containing frozen materials.
 - 3. Do not use calcium chloride, salt and other materials containing antifreeze agents or chemical hardeners.
- A. Hot Weather Placing
 - 1. When hot weather conditions exist that would seriously impair the quality and strengths of concrete place concrete in compliance with ACI 305.
 - 2. Wet forms thoroughly before placing concrete.
 - 3. Do not use retarding admixtures.

3.05 JOINTS

- A. General: construct joints true to line with face perpendicular to surface of the concrete, unless otherwise shown. Construct transverse joints at right angles to the centerline, unless otherwise required.

- B. Weakened-Plane (Contraction) Joints: Provide weakened-plane (Contraction) joints, sectioning concrete into areas shown on the Drawings. Construct weakened-plane joints for a depth equal to at least 1/4 concrete thickness, as follows:
 - 1. Tooled Joints: Form weakened-plane joints in fresh concrete by grooving top portion with a recommended cutting tool and finishing edges with a jointer.
- C. Construction Joints: Construction joints shall coincide with expansion joints.
- D. Expansion Joints
 - 1. Provide pre-molded joint filler for expansion joints abutting concrete curbs, catch basins, manholes, inlets, structures, walls and other fixed objects.
 - 2. Locate expansion joints at 20' o.c. unless otherwise shown.
 - 3. Extend joint fillers full width and depth of joint. Furnish joint fillers in one piece lengths for the full width being placed, wherever possible. Where more than one length is required, lace or clip joint filler section together. Form top edge of filler to conform to top profile of concrete except where sealing is indicated.
 - 4. Except where sealing is indicated, protect the top edge of the joint filler during concrete placement with a metal cap or other temporary material. Remove protection after both sides of joint are in place.

3.06 CONCRETE FINISHING

- A. After striking off and consolidating concrete, smooth the surface by screeding and floating. Use hand methods only where mechanical floating is not possible. Adjust the floating to compact the surface and produce a uniform texture.
- B. After floating, test surface for trueness with a 10' straightedge. Distribute concrete as required to remove surface irregularities, and re-float repaired areas to provide a continuous, smooth finish.
- C. Work Edges of slabs and formed joints with an edging too, and round to 1/2' radius, unless otherwise shown. Eliminate tool marks on concrete surfaces.
- D. After completion of floating and when excess moisture or surface sheen has disappeared, complete surface finishing as follows:

Provide hard trowel finish. Repeat troweling operation if required to provide a fine smooth uniform surface acceptable to Owners Representative. Edge and score with tool agreed to by Owners Representative.

3.07 CONCRETE CURING AND PROTECTION

General

- 1. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures and maintain without drying at a relatively constant temperature for a period of time necessary for hydration of cement and proper hardening.
- 2. Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Weather permitting, keep continuously moist for not less than 72 hours.
- 3. Begin final curing procedures immediately following initial curing and before concrete has dried. Continue final curing for at least 168 cumulative hours (not necessarily consecutive) during which concrete has been exposed to air temperatures above 50 degrees F. Avoid rapid drying at end of final curing period. Use Moisture-retaining cover to membrane-forming curing compound.

3.08 REMOVAL OF FORMS

- A. Formwork may be removed 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form removal operations, and provided curing and protection operations are maintained.

3.09 REPAIRS AND PROTECTIONS

- A. All panels that are not finished to the satisfaction of the Architect/Engineer shall be removed and replaced at no cost to the Owner.
- B. No graffiti or defacing of concrete will be accepted. Any defaced concrete work will be removed and replaced by the Contractor at no additional cost to the Owner.
- C. Protect concrete from damage until acceptance of Work. Exclude traffic from pavement for at least 7 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- D. Sweep concrete pavement and wash free of stains, discoloration, dirt, and other foreign materials just prior to final inspection.

3.10 GUARANTEE OF CONCRETE WORK

As an additional guarantee beyond the implied one (1) year guarantee of the Performance Bond, the Contractor shall be required to extend that guarantee to a total of three (3) years after the date of substantial completion. This guarantee will be for structural failures, as well as surface defects due to spalling and surface erosion due to faulty workmanship. All work not meeting industry standards will be removed and replaced immediately at the Contractor's expense.

END OF SECTION

1.0 GENERAL

1.01 SCOPE

Furnish and install a Poured-in-Place Playground Surfacing System

Related Sections: Division 2 Site work sections: Materials and Methods, Excavation, Concrete Paving, and Playground Equipment.

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers-Tension.
2. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
3. ASTM D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.
4. ASTM D2859 Standard Test Method for Flammability of Finished Textile Floor Covering Materials.
5. ASTM E303 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.
6. ASTM F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.
7. ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.

1.03 SYSTEM DESCRIPTION

A. Performance Requirements: Provide a 2 layer rubber-urethane playground surfacing system which has been designed, manufactured and installed to meet the following criteria:

1. Shock Attenuation (ASTM F1292):
 - a. Gmax: Less than 200.
 - b. Head Injury Criteria: Less than 1000.
2. Flammability (ASTM D2859): Pass.
3. Tensile Strength (ASTM D412): 60 psi (413 kPa).

4. Tear Resistance (ASTM D624): 140%.
5. Water Permeability: 0.4 gal/yd²/second.
6. Accessibility: Comply with requirements of ASTM F1951.

1.04 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit manufacturer's product data and installation instructions.
- C. Verification Samples: Submit manufacturer's standard verification samples of 9" x 9" (229 x 229 mm) minimum.
- D. Quality Assurance/Control Submittals: Submit the following:
 1. Certificate of qualifications of the playground surfacing installer.
- E. Closeout Submittals: Submit the following:
 1. Warranty documents specified herein.

1.05 QUALITY ASSURANCE

- A. Qualifications: Utilize an installer approved and trained by the manufacturer of the playground surfacing system, having experience with other projects of the scope and scale of the work described in this section.
- B. Certifications: Certification by manufacturer that installer is an approved applicator of the playground surfacing system.
- C. International Play Equipment Manufacturers Association (IPEMA) certified.

1.06 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirement Section.
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at a minimum temperature of 40 degrees F (4 degrees C) and a maximum temperature of 90 degrees F (32 degrees C).

1.07 PROJECT/SITE CONDITIONS

- A. Environmental Requirements: Install surfacing system when minimum ambient temperature is 40 degrees F (1 degree C) and maximum ambient temperature is 90 degrees F (32 degrees C). Do not install in steady or heavy rain.

1.08 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under contract documents.

2.0 PRODUCTS

2.01 POURED-IN-PLACE PLAYGROUND SURFACING SYSTEM

- A. Manufacturer: Surface America, Inc. or approved equal.
 - 1. Contact: PO Box 157, Williamsville, NY 14231;
Telephone: (800) 999-0555, (716) 632-8413;
Fax: (716) 632-8324;
E-mail: info@surfaceamerica.com;
website: <http://www.surfaceamerica.com>.
- B. Poured-in-place playground surfacing system, including the following:
 - 1. PlayBound Poured-In-Place Primer:
 - a. Material: Urethane.
 - 2. PlayBound Poured-in-Place Basemat:
 - a. Material: Blend of 100% recycled SBR (styrene butadiene rubber) and urethane.
 - b. Thickness 1 1/2" (38 mm)
 - c. Formulation Components: Blend of strand and granular material.
 - 3. PlayBound Poured-In-Place Top Surface:
 - a. Material: Blend of recycled EPDM (ethylene propylene diene monomer) rubber and aromatic or aliphatic urethane binder. Aliphatic urethane (Extreme-10)
 - b. Thickness: Nominal 1/2" (12.7 mm)

- c. Color: Hunter Green, and Royal Blue. See plans for color locations.
- d. Dry Static Coefficient of Friction (ASTM D2047): 1.0.
- e. Wet Static Coefficient of Friction (ASTM D2047): 0.9.
- f. Dry Skid Resistance (ASTM E303): 89.
- g. Wet Skid Resistance (ASTM E303): 57.

2.03 MIXES

A. Required mix proportions by weight:

- 1. Basemat: 16+% urethane (as ratio: 14% urethane divided by 86% rubber). 14% urethane, 86% rubber (based on entire rubber & urethane mix).
- 2. Top Surface: 22% urethane (ratio: 18% urethane divided by 82% rubber). 18% urethane, 82% rubber (based on entire rubber & urethane mix).

3.0 EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS

Comply with the instructions and recommendations of the playground surfacing manufacturer.

3.02 EXAMINATION

Substrate preparation must be in accordance with surfacing manufacturer's specification. New concrete must be fully cured – up to 7 days.

3.03 PREPARATION

Surface Preparation: Using a brush or short nap roller, apply primer to the substrate perimeter and any adjacent vertical barriers such as playground equipment support legs, curbs or slabs that will contact the surfacing system at the rate of 300 ft²/gal (7.5 m²/L).

3.04 INSTALLATION

Do not proceed with playground surfacing installation until all applicable site work, including substrate preparation, fencing, playground equipment installation and other relevant work, has been completed.

Basemat Installation:

1. Using screeds and hand trowels, install the basemat at a consistent density of 29 pounds, 1 ounce per cubic foot (466 kg/m³) to the specified thickness.
2. Allow basemat to cure for sufficient time so that indentations are not left in the basemat from applicator foot traffic or equipment.
3. Do not allow foot traffic or use of the basemat surface until it is sufficiently cured.

Primer Application: Using a brush or short nap roller, apply primer to the basemat perimeter and any adjacent vertical barriers such as playground equipment support legs, curbs or slabs that will contact the surfacing system at the rate of 300 ft²/gal (7.5 m²/L).

Top Surface Installation:

1. Using a hand trowel, install top surface at a consistent density of 58 pounds, 9 ounces per cubic foot (938 kg/m³) to a nominal thickness of 1/2" (12.7 mm).
2. Allow top surface to cure for a minimum of 48 hours.
3. At the end of the minimum curing period, verify that the top surface is sufficiently dry and firm to allow foot traffic and use without damage to the surface.
4. Do not allow foot traffic or use of the surface until it is sufficiently cured.

3.05 PROTECTION

A. Protect the installed playground surface from damage resulting from subsequent construction activity on the site.

END OF SECTION

SECTION 02760 COLORED CONCRETE PAVEMENT

1.0 GENERAL

1.1 SUMMARY

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to Work of this Section.
- B. Section Includes:
 - 1. Dry-shake colored hardener applied to slabs-on-grade, sidewalks.
 - 2. Curing of colored and imprinted concrete.
- C. Related Sections:
 - 1. Division 2 Section "Cast-In-Place Concrete for general applications of concrete [and for cementitious or epoxy mortar, underlayments, or toppings].

1.2 REFERENCES

- A. American Concrete Institute (ACI):
 - 1. ACI 301 "Specification for Structural Concrete for Buildings."
 - 2. ACI 302 IR "Recommended Practice for Concrete Floor and Slab Construction."
 - 3. ACI 303.1 "Standard Specification for Cast-In-Place Architectural Concrete."
 - 4. ACI 304 "Recommended Practice for Measuring, Mixing, Transporting and Placing of Concrete."
 - 5. ACI 305R "Recommended Practice for Hot Weather Concreting."
 - 6. ACI 306R "Recommended Practice for Cold Weather Concreting."
- B. American Society of Testing and Materials (ASTM):
 - 1. ASTM C309 "Standard Specifications for Liquid Membrane-Forming Compounds for Curing Concrete."
 - 2. ASTM C494 "Standard Specification for Chemical Admixtures for Concrete."

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's complete technical data sheets for the following:
 - 1. Dry-shake colored hardener.
 - 2. [Powder antiquing release agent.]
 - 3. Curing compound.

- B. Design Mixes: For each type of concrete.
- C. Samples for Initial Selection: Manufacturer's color charts showing full range of colors available.
- D. Qualification Data: For firms indicated in "Quality Assurance" Article, including list of completed projects.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer with 10-years experience in manufacture of specified products.
- B. Installer Qualifications: An installer with three years experience with work of similar scope and quality.
- C. Comply with the requirements of ACI 301.
- D. Obtain each specified material from same source and maintain high degree of consistency in workmanship throughout Project.
- E. Notification of manufacturer's authorized representative shall be given at least 1-week before start of Work.
- F. Colored Concrete Field Samples]
 - 1. Provide under provisions of Division 1 Section "Quality Control."
 - 2. At location on Project selected by Engineer, place and finish 4 feet by 4 feet sample area.
 - 3. Construct sample area using processes and techniques intended for use on permanent work, including curing procedures. Include samples of control, construction, and expansion joints in sample area. Sample area shall be produced by the individual workers who will perform the work for the Project.
 - 4. Accepted sample area provides visual standard for work of Section.
 - 5. Sample area shall remain through completion of the work for use as a quality standard for finished work.
 - 6. Remove sample area when directed.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in original factory unopened, undamaged packaging bearing identification of product, manufacturer, batch number, and expiration data as applicable.

- B. Store the product in a location protected from damage, construction activity, and precipitation in strict accordance with the manufacturer's recommendations.

1.6 PROJECT CONDITIONS

- A. Schedule placement to minimize exposure to wind and hot sun before curing materials are applied.
- B. Avoid placing concrete if rain, snow, or frost is forecast within 24-hours. Protect fresh concrete from moisture and freezing.
- C. Comply with professional practices described in ACI 305R and ACI 306R.

1.7 PRE-JOB CONFERENCE

- A. One week prior to placement of concrete, a meeting shall be held to discuss the Project and application methods.

PART 2 - PRODUCTS

2.0 ACCEPTABLE MANUFACTURER

- A. L. M. SCOFIELD COMPANY, Douglasville, Georgia (800) 800-9900 or the appropriate local contact: Eastern Division – 201-672-9050; Western Division – 714-568-1870; Central Division Office – 630-377-5959.

2.1 MATERIALS

- A. Dry-shake Colored Hardener: LITHOCHROME® Color Hardener; L. M. SCOFIELD COMPANY, factory proportioned, mixed, and packaged, ready-to-use surface hardener.
- B. Curing Compound: CEMENTONE® Clear Sealer; L. M. SCOFIELD COMPANY.

- C. Curing and Sealing Compound: SCOFIELD® Cureseal-W™ Matte; L. M. SCOFIELD COMPANY. Curing and sealing compound shall comply with ASTM C309 and be of same manufacturer as colored admixture, for use with integrally colored concrete.
- D. SUBSTITUTIONS: The use of products other than those specified will be considered providing that Contractor requests its use in writing within 14-days prior to bid date. This request shall be accompanied by the following:
 - 1. A certificate of compliance from material manufacturer stating that proposed products meet or exceed requirements of this Section.
 - 2. Documented proof that proposed materials have a 10-year proven record of performance confirmed by at least 5 local projects that [Architect] [Landscape Architect] [Engineer] can examine.

2.2 COLORS [AND PATTERNS]

- A. Colors: As selected by Engineer from Scofield Color Chart A-112.08 LITHOCHROME Color Hardener.

2.3 CONCRETE MIX DESIGN

- A. Minimum Cement Content: 5 sacks per cubic yard of concrete.
- B. Slump of concrete shall be consistent throughout Project at 4-inches or less. At no time shall slump exceed 5-inches. If super plasticizers are allowed, slump shall not exceed 8-inches.
- C. Do not add calcium chloride to mix as it causes mottling and surface discoloration.
- D. Supplemental admixtures shall not be used unless approved by manufacturer.
- E. Do not add water to the mix in the field.
- F. Maximum air content shall not exceed 5 percent.

PART 3 - EXECUTION

3.0 CONCRETE PLACEMENT

- A. Move concrete into place with square-tipped shovels or concrete rakes.
- B. Vibrators, when used, shall be inserted and withdrawn vertically.

- C. Concrete shall be struck to specified level with wood or magnesium straight edge or mechanical vibrating screed.
- D. The concrete surface shall be further leveled and consolidated with highway magnesium straight edge and/or magnesium bull float.
- E. Mechanically float concrete surfaces as soon as concrete surface has taken its initial set and will support weight of a power float machine equipped with float shoes or combination blades and operator.

3.1 INSTALLATION

- A. Apply 2/3 of specified application rate to freshly floated concrete surface. Bleed water shall not be present during or following application of first and second shake.
- B. Do not throw dry-shake; distribute evenly by hand or mechanical spreader designed to apply floor hardeners. Consult L. M. Scofield Company for recommended manufacturers of mechanical spreaders.
- C. As soon as dry-shake material has absorbed moisture, indicated by uniform darkening of surface, mechanically float concrete surface a second time, just enough to bring moisture from base slab through dry-shake color hardener.
- D. Immediately following second floating, apply remaining 1/3 of specified application rate. If applied by hand, broadcast in opposite direction of first application for a more uniform coverage. If a mechanical spreader is used, apply the same manner as previously described.
- E. As soon as dry-shake material has absorbed moisture, mechanically float concrete surface a third time.
- F. Do not add water to the surface.

3.2 CURING

- A. Imprinted concrete shall be cured with liquid membrane [curing] [curing and sealing] compound as recommended by manufacturer.
- B. As soon as possible after antiquing release has been removed and after moisture content of concrete is low enough that alkali and other salts do not become trapped beneath sealer, normally a minimum of 14 to 28 days after placement, apply 2-coats of specified [sealer] [curing and sealing compound] according to manufacturer's written instructions.

- C. There should be no free water on the surface at time of application.

3.3 REPAIRS AND PROTECTION OF FINISHED WORK

- A. Protect finish work under provisions of Division 1 Section.
- B. All panels that are not finished to the satisfaction of the Engineer shall be removed and replaced at no cost to the Owner.
- C. No graffiti or defacing of concrete will be accepted. Any defaced concrete work will be removed and replaced by the Contractor at no additional cost to the Owner.
- D. Protect concrete from damage until acceptance of Work. Exclude foot traffic from pavement for at least 7 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- E. Sweep concrete pavement and wash free of stains, discoloration, dirt, and other foreign materials just prior to final inspection.
- F. Barricade area to protect newly imprinted concrete.

END OF SECTION

PART 1 GENERAL

1.01 DESCRIPTION

A. Work included:

1. The work covered by this section consists of furnishing all labor, materials, tools, equipment, and incidentals necessary to supply and install the various site furnishings that occur on the project
 - a. Furnishing all items specified.
 - b. Layout of the work.
 - c. Assembly and installation of all apparatus.

B. Related Sections:

Section 01300 - Submittals.

1.02 QUALITY ASSURANCE

Provide at least one person who is thoroughly trained and experienced in the skills required, who shall be completely familiar with the design and application of the work described for this section, and who shall be present at all times during progress of the work of this section and shall direct all work performed under this section.

1.03 PRODUCT HANDLING

A. Protection:

Use all means necessary to protect site furnishings and other materials before, during, and after installation and to protect the installed work and materials of all other trades.

B. Submittals

1. Submit under the provisions of Section 01300.
2. Submit product information and manufacturer's installation recommendations for all equipment.

PART 2 PRODUCTS

2.01 SITE FURNITURE

A. "The Grass" 3 pieces short, standard and tall.

Manufactured by;
Goric Marketing Group USA, Inc.
464 Common St #148
Belmont, MA 02478
P: 617-744-0772
F: 617-744-1037

Or approved equal.

- B. "Ponderosa" extra large 89"H x 47"W, Qty. 1

Manufactured by;
LEOPOLDgallery + ARTconsulting
324 West 63rd Street
Kansas City, MO 64113
PH 816 333-3111
Fax 816 333-3616
leopoldgallery.com

Or approved equal.

- C. **ALTERNATE** "Curved Arbor" GRE -30, **White** , 6 **Round** column with the **Steel** lattice with **Tuscan** (O35) beam end.

Manufactured by;
Poligon Park Architecture
Porter Corp.
4240 N. 136th Ave.
Holland, MI 49424
PH 616 399-1963
poligon.com

Or approved equal.

Supplied by;
Reese Recreation
Phone- 888-206-4861
3327 N. Ridge Ave.
Arlington Heights, IL 60004
skoch@reeserec.com

- D. Bike Rack "Recycle Rack" Powder Coated **Green, Surface Mount, Circles Shape, Qty 2**

Manufactured by;
DERO
504 Malcolm Ave SE, Suite 100
Minneapolis, MN 55414
PH 888 337-6729
dero.com

Or approved equal.

- E. Curved Stone Benches **Lannon Weather Edge, Qty 9**

Manufactured by;
Halquist Stone
N51 W23563 Lisbon Road
Sussex, WI 53089
(262) 246-9000
halquiststone.com

Or approved equal.

- F. Stainless Steel Compass Letters, Qty 4, (N, S, E, W) ¼" thick Stainless Steel, Brushed Finish, 24" High with studs on back for flush mounting of the letters within the concrete.

Manufactured by;
Impact Signs Inc.
26 E. Burlington Ave.
LaGrange, IL 60525
(708) 469-7178
impactsigns.com

Or approved equal.

PART 3 EXECUTION

3.01 GENERAL

- A. Install all elements in location as indicated on the drawing.
- B. Landscape Architect reserves the right to make minor field adjustments to best fit the exact field conditions.

3.02 APPARATUS

All site furniture shall be installed per the recommendations of the approved manufacturer.

END OF SECTION

1.00 GENERAL**1.01 DESCRIPTION****A. Work Included**

Scope as defined for this work shall consist of, but not be limited to:

1. Seeding:

To consist of preparation of seed beds, furnishing, transporting, and placing the seed and other materials required in the seeding operations in all the areas designated to be seeded and mulched.

2. Fertilizing:

To consist of furnishing and placing fertilizer required for the operation.

3. Mulching:

To consist of furnishing and spreading a mulch material on all areas seeded.

B. Related work described elsewhere:**1. Submittals - Section 01340****2. Earthwork - Section 02200****3. Erosion Control - Section 02015****1.02 QUALITY ASSURANCE**

Provide at least one person who shall be thoroughly trained and experienced in the skills required, who shall be completely familiar with the design and application of the work described for this section, and who shall be present at all times during progress of the work of this section and shall direct all work performed under this section.

A. Protection:

Use all means necessary to protect site seeding before during , and after installation and to protect the installed work and materials of all other trades.

B. Replacements:

In the event of damage to the site seeding, immediately make all repairs or replacements necessary to the approval of the Owner and at all no additional cost to the Owner.

1.03 SUBMITTALS**A. Submit under provisions of Section 01300****B. Submit product information and manufactures installation recommendations for all site furnishings.****1.04 PRODUCT HANDLING****A. Delivery and Storage:****1. Deliver all items to the site in their original containers with all labels intact and legible at time of Owners representative inspection.****2. Use all means necessary to protect all items before, during and after installation and to protect the installed work and materials of all trades**

B. Replacements

In the event of damage or rejection, immediately make all repairs and replacements necessary to the approval of the Owners Representative and at no additional cost to the owner.

1.06 JOB CONDITIONS

Scheduling:

- A. Fall seeding my start September 1st, and must not occur after October 1st

1.07 GUARANTEE

Contractor shall guarantee the seeding for a period of one growing season from the Date of Substantial Completion of total project for any loss due to faulty materials, workmanship, or procedures.

If any seeding must be performed later than the scheduled periods then the contractor shall also guarantee these seeded areas for a period of one growing season from the date of substantial completion from loss due to weather conditions.

2.0 PRODUCTS**2.01 FERTILIZER****A. General:**

All fertilizer shall be a commercial balanced 1:2:1 ratio fertilizer delivered to the site in bags labeled with the manufacture's guaranteed analysis.

LEB Country Club 13-25-12 Homogeneous
LEB Pro 15 - 24 - 19 Blend
PAR x 10 - 18 - 22 Blend

or approved equal.

B. Special Protection:

If stored at the site, protect fertilizer from the elements at all times.

2.02 GRASS SEED**A. General:**

All grass seed shall be;

1. Free from noxious weed seeds and re-cleaned.
2. Grade A recent crop seed.
3. Treated with appropriate fungicide at time of mixing.
4. Delivered to the site in sealed containers with the dealer's guaranteed analysis.

- B. Grass seed used in seeding shall be composed of the following seeds mixed in the proportions by weight, and will be tested of the minimum percentages of purity and germination as indicated.

2.03 MULCH MATERIAL

- A. Mulch material shall be non-toxic to vegetation and to the germination of seed, free from noxious weeds and weed seeds and shall be approved, prior to application, by the Owner.

- 1. Cellulose Fiber: Shall be of commercial manufactures and approved by the Owner.

2.04 EROSION CONTROL BLANKET

A dyed green Aspen wood fiber mat constructed from curled excelsior, of which 80% is six inches or longer in length. It shall have a uniform color and consistent thickness, and fibers evenly distributed over the entire blanket. Each blanket shall be covered with a photodegradable, extruded plastic mesh and shall not contain any chemical additives.

Weight 1.06 lbs./sq. yd. Curlex Quickgrass manufactured by American Excelsior Co. or approved equal.

3.00 EXECUTION

3.01 GENERAL

- A. Install seed and erosion control blanket in locations as indicated on the drawing

3.02 SURFACE CONDITIONS

Inspections;

- A. Prior to all work of this section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
- B. Verify that the seeding may be completed in accordance with the original design.

3.03 FINE GRADING FOR SEED BED

- A. Finish Grading:
All finished grading will be performed under Section 02200 of these specifications to the tolerances described therein.
- B. Fine Grade:
Upon completion of finish grading, perform all fine grading required in planting areas, using topsoil obtained from site or brought in as required.
- C. The area to be seeded shall be worked to a minimum depth of 3 inches with equipment approved by the Owner.

3.04 FERTILIZING

Apply the specified fertilizer in two directions over area to be seeded. Apply at the rate of IDOT recommended rates. Rake lightly into the soil.

3.05 SOWING GRASS SEED

- A. Preparation:
1. Insure that all seed beds have been properly graded and are smooth, continuous, firm planes that ensure proper drainage.
 2. Remove all soil lumps, rocks, sticks, or other deleterious material remaining of a dimension of one inch (1") in any direction.
 3. In the event that prior conditioned soil has become compacted by rain, equipment, or other means, the entire site affected shall be reconditioned to a depth of not less than two inches (2") just prior to seeding.
- B. Application:
1. Sow with a seeder approved by the Owner.
 2. Sow at a rate of 250 pounds per acre. Sow seed in two directions.
 3. Lightly rake seed into top of soil.
 4. Roll all newly seeded areas.
 5. Promptly after seeding, wet the upper ½" of seed be thoroughly, keeping all areas moist (standing water is not acceptable) throughout the germination process.

3.06 MULCHING

- A. Shall be applied by a method approved by the Owner and shall consist of applying and securing a layer of mulch material on the seeded areas at a rate of 50 lbs. Per 1000 sq. ft.
- B. Within 24 hours from the time of seeding, the seeded areas shall be given a covering of mulch; except that on slopes steeper than 3:1 mulch shall be applied the same day as seed.

3.07 EROSION CONTROL BLANKET

Install erosion control blanket in areas indicated on drawings. Install per manufactures instructions for the situation of its use. Erosion control blanket should also be installed in all areas disturbed by construction.

3.08 INSPECTION

In addition to normal progress inspections, schedule and conduct the following formal inspections, giving the Owner at least 24 hours prior notice of readiness for inspection.

- A. Final inspection after completion of seeding: Schedule this inspection sufficiently in advance, and in cooperation with the Owner so that the final inspection may be conducted within 24 hours after completion of seeding.
- B. Acceptance by Owner.

3.09 CLEAN UP

The entire area in the vicinity of the landscaping work shall be cleaned of all trash and debris, disposed of legally off-site, and left in a satisfactory condition.

END OF SECTION

1.00 GENERAL**1.01 DESCRIPTION**

- A. Work Included:
Landscaping as defined for this work shall consist of, but not be limited to:
1. Planting:
To consist of digging and preparing plant holes, and of furnishing, transporting, and planting of trees, shrubs and other plant materials.
 2. Other:
Work shall also include all incidental operations such as mulching, bracing, wrapping, care of living plants and replacement of unsatisfactory plants.

1.02 QUALITY ASSURANCE

- A. Qualification of workmen:

Provide at least one person who shall be present at all times during execution of this portion of the work and who shall be thoroughly familiar with the type of materials being installed and the best methods for their installation and who shall direct all work performed under this section.
- B. Codes and Reference Standards:

All materials shall conform to the standards adopted by the American Association of Nurserymen.

All material shall be balled and burlapped.

1.03 PRODUCT HANDLING

- A. Delivery and Storage:
1. Deliver all items to the site in their original containers with all labels intact and legible at time of Architect's inspection.
 2. Use all means necessary to protect all items before, during, and after installation, and to protect the installed work and materials of all other trades.
- B. Replacements:

In the event of damage or rejection, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

1.04 JOB CONDITIONS

Scheduling:

Fall planting shall be performed from the time the plant becomes dormant until the ground cannot be satisfactorily worked except that evergreen planting shall be performed between September 1 and November 1.

1. The planting time may be extended for container grown plants if the Architect determines that the weather conditions are favorable.

1.05 **GUARANTEES**

This Contractor shall guarantee the plant material for a period of one year after Date of Substantial Completion of total Project. He shall replace any and all plant material, which has not survived the guarantee period.

Within this period of the guarantee, plants replaced by approval of the Architect shall be guaranteed for 1 year from date of replacement.

At any time within the period of the guarantee, the Contractor shall replace any plant, which has died or is in a dying condition, or has failed to flourish in such a manner or is such a degree that its usefulness or appearance has been impaired due to inferior or defective materials or workmanship, or unfavorable weather conditions. The decision of the Landscape Architect for making replacements shall be conclusive and binding. The Contractor shall also make good damage to persons or property caused by defective workmanship or materials.

2.00 **PRODUCTS**

2.01 **TREES & SHRUBS**

All materials shall conform to the standards adopted by the American Association of Nurserymen.

All material shall be balled and burlapped or container grown.

2.02 **SHREDDED HARDWOOD BARK MULCH**

Shredded hardwood bark mulch shall be free of harmful chemicals, diseases, and insects. Mulch shall have a minimum 1/8 inch dimension and a maximum length of 2-1/2".

2.03 **TREE WRAP**

Tree wrap for wrapping the trunks shall be either burlap strips, or first quality, 4-inch wide bituminous impregnated tape, corrugated or crepe paper, specifically manufactured for tree wrapping and having qualities to resist insect infestation.

2.04 **FERTILIZER**

All fertilizer shall be a commercial balanced 10-6-4 fertilizer delivered to the site in bags labeled with the manufacturer's guaranteed analysis.

2.05 **OTHER MATERIALS**

All other materials, not specifically described but required for complete and proper completion of the work of this section, shall be as selected by the contractor subject to the approval of the Architect.

3.00 EXECUTION

3.01 SURFACE CONDITIONS

- A. Inspection:
 - 1. Prior to all work of this section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
 - 2. Verify that planting may be completed in accordance with the original design and the referenced standards.
- B. Apply a total non-plant selective herbicide to the outline of all mass planting beds. Follow manufactures instructions for use and applications. Herbicide to be applied by a licensed applicator.
- C. After herbicide manufacture recommendations for sufficient time to perform removes existing turf and vegetation debris. Dispose of off site.

3.02 DIGGING OF PLANTS

- A. Plants shall be dug with care, avoiding injury to the plants or loss or damage of the root.
- B. Immediately after digging, roots shall be protected against drying out and freezing.

3.03 TRANSPORTATION AND STORAGE OF PLANTS

- A. Transportation:

The contractor shall exercise care to prevent injury and drying out of the plant material.
- B. Storage:
 - 1. Balled and burlapped or container grown plants may remain on the site only 72 hours prior to being planted or put in storage.
 - 2. Plants shall be kept moist and protected from freezing.
- C. Rejection:

All plant material shall be inspected and should the roots be dried out, large branches broken, balls of earth broken or loosened, or areas of bark torn, the Architect may reject the injured materials.

3.04 EXCAVATION OF PLANT HOLES

- A. Shape:

The sides of all plant holes shall be sloped and the bottoms horizontal.

B. Size:

1. Tree excavations shall be the ball depth by the ball diameter plus 24 inches.
2. Shrub excavations shall be dug to the depth of the root ball and the ball diameter plus 18 inches.
3. Ground cover and perennial excavations shall be a minimum diameter and depth of the container plus 8 inches.
4. All excess excavated material shall be removed from the site and dumped at the Hunt Club Park Site

3.05 **PRUNING**

A. Method:

1. Pruning shall be done in such a manner as to preserve the natural growth habit of each plant.
2. Procedure and percentage of growth to be removed shall be subject to the approval of the Architect.
3. All wound surfaces larger than one inch in diameter shall be treated with a commercial pruning compound.

B. Deciduous Trees:

1. Pruning shall consist of thinning the twigs or branches as indicated by the habit of growth of the species.
2. Leader and terminal buds shall not be cut unless directed by the Architect.

C. Deciduous Shrubs:

1. Rapid growing or suckering shrubs shall be cut back 1/3.
2. Slow-growing shrubs shall be pruned in the same manner as deciduous trees.

3.06 **PLANTING**

A. General:

1. Remove all rocks and debris over 1" in diameter from top 3" of planting beds. Remove top two inches of existing soil from entire surface of mass planting beds.
2. Apply a 3" layer of Mushroom compost over entire surface of mass planting beds. Prepared backfill shall consist of a mixture of top soil and peat moss at a ratio of 1 cubic yard soil, 3 cubic feet of peat moss.
3. Prepared backfill soil shall be in a loose friable condition at the time of planting.
4. All plants shall be placed in a plumb position and set at the same depth as they grew in the nursery field.
5. Tamping or watering shall accompany the backfilling operation to eliminate air pockets.

B. Balled and Burlapped Plants:

After the plant is placed in the hole, all cords and burlap shall be cut away from the trunk and the burlap and any wire baskets removed from the top of the ball.

C. Container Grown Plants:

1. Prior to placing the plant in the hole, the container shall be removed with care so as not to disturb the root system.

D. After planting apply a pre-emergent herbicide to all mass planting beds. Apply per manufactures instructions for application.

3.07 WRAPPING

All shade trees of 2-1/2" diameter or larger shall be wrapped from the ground to the lowest major branch using a commercially available tree wrapping paper, subject to approval of the Architect.

3.08 BRACING

A. General:

1. All trees taller than 4 feet in height and less than 4-1/2" in diameter shall be braced.
2. Posts shall be driven vertically to a depth of 18 inches below the bottom of the hole and adjacent to the outside of the ball.
3. Wire shall be No. 10 wire fastened to the anchor.
4. Wire shall be encased in a protective sleeve where it contacts the plant.

A. Requirements:

1. Trees 4 ft. to 8 ft. in height shall require one post.
2. Trees 8 ft. in height and less than 3 inches in diameter shall require two posts.
3. Trees that exceed 3 inches in diameter and less than 4-1/2" in diameter shall require 3 posts.
4. Guy wires shall be secured to the trunk approximately 5 to 8 feet above ground level for deciduous trees and not less than 2/3 the height of the tree for evergreens.

C. Guarantee:

During the life of the contract if trees blow down, sway excessively, or are otherwise injured because of improper bracing, they shall be replaced or repaired by the contractor.

3.09 INSPECTION

In addition to normal progress inspections, schedule and conduct the following formal inspections, giving the Architect at least 24 hours prior notice of readiness for inspection:

- A. Final inspection after completion of sodding and planting: Schedule this inspection sufficiently in advance, and in cooperation with the Architect, so that

the final inspection may be conducted within 24 hours after completion of planting.

B. Acceptance by Owner.

3.10 **CLEAN UP**

The entire area in the vicinity of the landscaping work shall be cleaned of all trash and debris and left in a satisfactory condition.

END OF SECTION

DRINKING FOUNTAIN

Description. This work consists of furnishing and installing a drinking fountain and fountain and all associated piping, fittings, valves, and vault necessary to connect the drinking fountain to the existing water main and sanitary drain as shown on the plan details and as directed by the Engineer. This work shall be performed in accordance with Section 562 of the Standard Specifications, Sections 41, 42 and 43 of the Illinois Sewer and Water Main Standard Specifications, the Illinois Plumbing Code, and as specified herein.

Materials.

Drinking Fountain. The drinking fountain shall be installed as shown on the Plans. The drinking fountain shall be Model 4420BF1UDB, as manufactured by Halsey Taylor. The color of the fountain shall be as selected by the Village of Lincolnshire.

Drinking Fountain shall be factory zinc coated before installation. Contractor shall provide six (6) extra water filters.

Water Line. The water line shall be copper tubing. Copper tubing shall be Type K, soft temper, for underground potable water service conforming to ASTM 8-88 and B-251.

Water service lines shall be bored or open cut. All work shall be in accordance with Section 562 of the Standard Specifications and Section 41-2.11 of the Illinois Sewer and Water Main Standard Specifications.

The minimum cover shall be 5.5 feet. Any water service lines installed underneath existing pavements must use the directional boring method.

The Contractor shall provide the proper couplings between dissimilar materials. No couplings will be allowed beneath the proposed pavement. Where new domestic water service boxes are installed, water service line shall be minimum 1" diameter. The Contractor shall "pothole" the proposed drill path for all bored services and exposed utilities.

Construction Requirements. The water line can be installed by open cut or directional drilling methods. The size of the water line(s) shall be in accordance with those listed on the plans. The minimum cover shall be 5.5 feet.

Pressure Testing For Water Mains. General: After the pipe has been laid and partially backfilled as specified herein, all newly-laid pipe or any valved sections of it shall, unless otherwise expressly specified, be subjected to a hydrostatic pressure of 150 psi at the lowest elevation of the pipe section. The Engineer shall be given 24 hours notice prior to the beginning of testing. The duration of each pressure test shall be not less than four hours. Water main testing shall be in accordance with the applicable portions of AWWA Standards C600 and C603, or as otherwise modified herein.

Procedure for Test: The Contractor shall notify the Engineer at least twenty-four hours prior to the pressure test. Valves will be turned on only under the supervision of the Engineer, and the Engineer will witness all pressure testing.

Each section of pipe to be tested, as determined by the Engineer, shall be slowly filled with water and the specified test pressure shall be applied by means of a pump connected to the pipe in a satisfactory manner. The pump pipe connection and all necessary apparatus, including

gauges and meters, shall be furnished by the Contractor. Before applying the specified test pressure, all air shall be expelled from the pipe. To accomplish this, taps shall be made, if necessary, at points of highest elevations and afterwards tightly plugged. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of this pressure test shall be removed and replaced by the Contractor with sound material, and test shall be repeated until satisfactory to the Engineer and the Engineer. The provisions of AWWA C600 and C603, where applicable, shall apply.

Leakage Test: After completion of the pressure test, a leakage test shall be conducted to determine the quantity of water lost by leakage under the specified test pressure.

1. Test pressure is defined as the maximum operating pressure of the section under test, and is based on the elevation of the lowest point in the line or section under test corrected to the elevation of the test gauge. Applicable provisions of AWWA C600 and C603 shall apply. The minimum duration of each leakage test shall be one (1) hour in addition to the pressure test period.
2. Allowable leakage in gallons per hour for cast iron water main shall not be greater than that determined by the following formula:

$$L = \frac{ND \sqrt{P}}{7400}$$

Note: L = Allowable leakage in gallons per hour
N = Number of joints in length of pipeline tested.
D = Nominal diameter of the pipe in inches.
P = Average test pressure during leakage test in pounds per square inch gauge.

3. Leakage is defined as the quantity of water to be supplied in the newly laid pipe or any valved section under test, which is necessary to maintain the specified leakage test pressure after the pipe has been filled with water and the air expelled.

Disinfection of Water Mains. General: Disinfection of watermains shall be completed in accordance with Section 41-2.15 of the Illinois Sewer and Water Main Standard Specifications except as modified herein.

The Engineer shall be notified at least twenty-four hours before the disinfection procedure. Representatives of the water division must be present during the procedure.

Procedure:

A. Flushing

Sections of pipe to be disinfected shall first be flushed to remove any solids or contaminated material that may have become lodged in the pipe. If no hydrant is installed at the end of the main, then a tap should be provided large enough to develop a velocity of at least two and five-tenths feet (2.5') per second in the main. One two and one-half inch (2 ½") hydrant opening will, under normal pressures, provide this velocity in pipe sized up to and including twelve inches (12").

All taps required for chlorination or flushing purposes, or for temporary or permanent release of

air, shall be provided for by the Contractor as part of the construction of water mains.

B. Requirement of Chlorine

A free chlorine residual of at least 50 ppm and no more than 400 ppm must be reached throughout the entire length and branch lines of the water main. After the super-chlorinated water has sat in the main for twenty-four hours, a chlorine residual test shall be taken to insure the residual has not dropped by over one-half.

C. Form of Applied Chlorine

Chlorine shall be applied by the method which follows, subject to the review of the Engineer.

Chlorination shall be made by the use of chlorine gas only. The dry gas shall be fed directly through proper devices for regulating the rate of flow and providing effective diffusion of the gas into the water within the pipe being treated. Chlorinating devices for feeding the chlorine gas must provide means for preventing the backflow of water into the chlorine. The chlorine gas shall be injected into the main at intervals of no more than 1,000 feet.

D. Point of Application

The preferred point of application of the chlorine gas is at the beginning of the pipe line extension or any valved section of it, and through a corporation stop inserted in the pipe. The water injector for delivering the chlorine-bearing water into the pipe should be supplied from a tap made on the pressure side of the gate valve controlling the flow into the pipe line extension. Alternate points of application may be used subject to the review of the Engineer.

E. Preventing Reverse Flow

Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the line supplying the water. Check valves may be used if desired.

F. Retention Period

Treated water shall be retained in the pipe at least twenty-four (24) hours. After this period, the chlorine residual at pipe extremities and at other representative points shall be at least twenty-five (25) mg/l.

G. Chlorinating Valves and Hydrants

In the process of chlorinating newly laid pipe, all valves or other appurtenances shall be operated while the pipe line is filled with the chlorinating agent and under normal operating pressure.

H. Final Flushing and Testing

Following chlorination, all treated water shall be thoroughly flushed from the newly laid pipe at its extremity until the replacement water throughout its entire length shows, upon test, a chlorine residual of less than one (1) mg/l. In the event chlorine is normally used in the source of supply, then the test shall show a residual of not in excess of that carried in the system.

At this time a water sample will be taken by the Contractor or his representative and sent to a state-certified water lab of his choice. Also at this time the Engineer will witness the sampling. The Contractor shall take two (2) samples, 24 hours apart with satisfactory results or the procedure shall be repeated.

I. Repetition of Flushing and Testing

Should the initial treatment result in an unsatisfactory bacterial test, the original chlorination procedure shall be repeated by the Contractor until satisfactory results are obtained. After water main passes chlorination testing, the corporation stop used to chlorinate the main shall be shut off and any piping removed.

Basis of Payment. This work will be paid for at the contract unit price per each for DRINKING FOUNTAIN, which price shall constitute payment in full for providing and installing drinking fountain, drinking fountain valve vault and drainage receptacle, water service lines, valves and valve boxes, all necessary fittings, service boxes, connection to the water vault, and all labor, materials, equipment and incidentals required to complete the work as specified herein.

END OF SECTION

General Electrical Requirements

Add the following to Article 801 of the Standard Specifications:

“Maintenance transfer and Preconstruction Inspection:

General. Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall request a maintenance transfer and preconstruction site inspection, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting and/or traffic control systems which may be affected by the work. The request for the maintenance transfer and preconstruction inspection shall be made no less than seven (7) calendar days prior to the desired inspection date. The maintenance transfer and preconstruction inspection shall:

Establish the procedures for formal transfer of maintenance responsibility required for the construction period.

Establish the approximate location and operating condition of lighting and/or traffic control systems which may be affected by the work

Marking of Existing Cable Systems. The party responsible for maintenance of any existing lighting and/or traffic control systems at the project site will, at the Contractor's request, mark and/or stake, once per location, all underground cable routes owned or maintained by the State. A project may involve multiple "locations" where separated electrical systems are involved (i.e. different controllers). The markings shall be taken to have a horizontal tolerance of at least 304.8 mm (one (1) foot) to either side.. The request for the cable locations and marking shall be made at the same time the request for the maintenance transfer and preconstruction inspection is made. The Contractor shall exercise extreme caution where existing buried cable runs are involved. The markings of existing systems are made strictly for assistance to the Contractor and this does not relieve the Contractor of responsibility for the repair or replacement of any cable run damaged in the course of his work, as specified elsewhere herein. Note that the contractor shall be entitled to only one request for location marking of existing systems and that multiple requests may only be honored at the contractor's expense. No locates will be made after maintenance is transferred, unless it is at the contractor's expense.

Condition of Existing Systems. The Contractor shall conduct an inventory of all existing electrical system equipment within the project limits, which may be affected by the work, making note of any parts which are found broken or missing, defective or malfunctioning. Megger and load readings shall be taken for all existing circuits which will remain in place or be modified. If a circuit is to be taken out in its entirety, then readings do not have to be taken. The inventory and test data shall be reviewed with and approved by the Engineer and a record of the inventory shall be submitted to the Engineer for the record. Without such a record, all systems transferred to the Contractor for maintenance during construction shall be returned at the end of construction in complete, fully operating condition.”

Add the following to the 1st paragraph of Article 801.05(a) of the Standard Specifications:

“Items from multiple disciplines shall not be combined on a single submittal and transmittal. Items for lighting, signals, surveillance and CCTV must be in separate submittals since they may be reviewed by various personnel in various locations.”

Revise the second sentence of the 5th paragraph of Article 801.05(a) of the Standard Specifications to read:

“The Engineer will stamp the submittals indicating their status as ‘Approved’, ‘Approved as Noted’, ‘Disapproved’, or ‘Information Only’.

Revise the 6th paragraph of Article 801.05(a) of the Standard Specifications to read:

“Resubmittals. All submitted items reviewed and marked ‘Approved as Noted’, or ‘Disapproved’ are to be resubmitted in their entirety with a disposition of previous comments to verify contract compliance at no additional cost to the state unless otherwise indicated within the submittal comments.”

Revise Article 801.11(a) of the Standard Specifications to read:

“Lighting Operation and Maintenance Responsibility. The scope of work shall include the assumption of responsibility for the continuing operation and maintenance the of existing, proposed, temporary, sign and navigation lighting, or other lighting systems and all appurtenances affected by the work as specified elsewhere herein. Maintenance of lighting systems is specified elsewhere and will be paid for separately

Energy and Demand Charges. The payment of basic energy and demand charges by the electric utility for existing lighting which remains in service will continue as a responsibility of the Owner, unless otherwise indicated. Unless otherwise indicated or required by the Engineer duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously at the Owner's expense and lighting systems shall not be kept in operation during long daytime periods at the Owner's expense. Upon written authorization from the Engineer to place a proposed new lighting system in service, whether the system has passed final acceptance or not, (such as to allow temporary lighting to be removed), the Owner will accept responsibility for energy and demand charges for such lighting, effective the date of authorization. All other energy and demand payments to the utility shall be the responsibility of the Contractor until final acceptance.”

Add the following to Section 801 of the Standard Specifications:

“Lighting Cable Identification. Each wire installed shall be identified with its complete circuit number at each termination, splice, junction box or other location where the wire is accessible.”

“Lighting Cable Fuse Installation. Standard fuse holders shall be used on non-frangible (non-breakaway) light pole installations and quick-disconnect fuse holders shall be used on frangible (breakaway) light pole installations. Wires shall be carefully stripped only as far as needed for connection to the device. Over-stripping shall be avoided. An oxide inhibiting lubricant shall be applied to the wire for minimum connection resistance before the terminals are crimped-on. Crimping shall be performed in accordance with the fuse holder manufacturer's recommendations. The exposed metal connecting portion of the assembly shall be taped with two half-lapped wraps of electrical tape and then covered by the specified insulating boot. The fuse holder shall be installed such that the fuse side is connected to the pole wire (load side) and the receptacle side of the holder is connected to the line side.”

Revise the 2nd paragraph of Article 801.16 of the Standard Specifications to read:

“When the work is complete, and seven days before the request for a final inspection, the full-size set of contract drawings. Stamped “RECORD DRAWINGS”, shall be submitted to the Engineer for review and approval and shall be stamped with the date and the signature of the Contractor's supervising Engineer or electrician. The record drawings shall be submitted in PDF format on CDROM as well as hardcopy for review and approval. In addition to the record drawings, copies of the final catalog cuts which have been Approved or Approved as Noted shall be submitted in PDF format along with the record drawings. The PDF files shall clearly indicate either by filename or PDF table of contents the respective pay item number. Specific part or model numbers of items which have been selected shall be clearly visible.”

Add the following to Article 801.16 of the Standard Specifications:

“In addition to the specified record drawings, the Contactor shall record GPS coordinates of the following electrical components being installed, modified or being affected in other ways by this contract:

- Last light pole on each circuit
- Handholes
- Conduit roadway crossings
- Controllers
- Control Buildings
- Structures with electrical connections, i.e. DMS, lighted signs.
- Electric Service locations
- CCTV Camera installations
- Fiber Optic Splice Locations

Datum to be used shall be North American 1983.

Data shall be provided electronically and in print form. The electronic format shall be compatible with MS Excel. Latitude and Longitude shall be in decimal degrees with a minimum of 6 decimal places. Each coordinate shall have the following information:

1. Description of item
2. Designation or approximate station if the item is undesignated
3. Latitude
4. Longitude

Examples:

Equipment Description	Equipment Designation	Latitude	Longitude
CCTV Camera pole	ST42	41.580 493	- 87.79337 8
FO mainline splice handhole	HHL-ST31	41.558 532	- 87.79257 1
Handhole	HH at STA 234+35	41.765 532	- 87.54357 1
Electric Service	Elec Srv	41.602 248	- 87.79405 3
Conduit crossing	SB IL83 to EB I290 ramp SIDE A	41.584 593	- 87.79337 8
Conduit crossing	SB IL83 to EB I290 ramp SIDE B	41.584 600	- 87.79343 2
Light Pole	DA03	41.558 532	- 87.79257 1
Lighting Controller	X	41.651 848	- 87.76205 3
Sign Structure	FGD	41.580 493	- 87.79337 8
Video Collection Point	VCP-IK	41.558 532	- 87.78977 1
Fiber splice connection	Toll Plaza34	41.606 928	- 87.79405 3

Prior to the collection of data, the contractor shall provide a sample data collection of at least six data points of known locations to be reviewed and verified by the Engineer to be accurate within 100 feet. Upon verification, data collection can begin. Data collection can be made as construction progresses, or can be collected after all items are installed. If the data is unacceptable the contractor shall make corrections to the data collection equipment and or process and submit the data for review and approval as specified.

Accuracy. Data collected is to be mapping grade. A handheld mapping grade GPS device shall be used for the data collection. The receiver shall support differential correction and data shall have a minimum 5 meter accuracy after post processing.

GPS receivers integrated into cellular communication devices, recreational and automotive GPS devices are not acceptable.

The GPS shall be the product of an established major GPS manufacturer having been in the business for a minimum of 6 years.”

Underground Raceways

Revise Article 810.04 of the Standard Specifications to read:

“Installation. All underground conduit shall have a minimum depth of 30-inches (700 mm) below the finished grade.”

Add the following to Article 810.04 of the Standard Specifications:

“All metal conduit installed underground shall be Rigid Steel Conduit unless otherwise indicated on the plans.”

Add the following to Article 810.04 of the Standard Specifications:

“All raceways which extend outside of a structure or duct bank but are not terminated in a cabinet, junction box, pull box, handhole, post, pole, or pedestal shall extend a minimum of 300 mm (12”) or the length shown on the plans beyond the structure or duct bank. The end of this extension shall be capped and sealed with a cap designed for the conduit to be capped. The ends of rigid metal conduit to be capped shall be threaded, the threads protected with full galvanizing, and capped with a threaded galvanized steel cap. The ends of rigid nonmetallic conduit and coilable nonmetallic conduit shall be capped with a rigid PVC cap of not less than 3 mm (0.125”) thick. The cap shall be sealed to the conduit using a room-temperature-vulcanizing (RTV) sealant compatible with the material of both the cap and the conduit. A washer or similar metal ring shall be glued to the inside center of the cap with epoxy, and the pull cord shall be tied to this ring.”

Add the following to Article 810.04(c) of the Standard Specifications:

“Coilable non-metallic conduit shall be machine straightened to remove the longitudinal curvature caused by coiling the conduit onto reels prior to installing in trench, encasing in concrete or embedding in structure. The straightening shall not deform the cross-section of the conduit such that any two measured outside diameters, each from any location and at any orientation around the longitudinal axis along the conduit differ by more than 6 mm (0.25”).” The longitudinal axis of the straightened conduit shall not deviate by more than 20 mm per meter (0.25” per foot” from a straight line. The HDPE and straightening mechanism manufacturer operating temperatures shall be followed.

Electric Utility Service Connection (ComEd)

Description. This item shall consist of payment for work performed by ComEd in providing or modifying electric service as indicated. THIS MAY INVOLVE WORK AT MORE THAN ONE ELECTRIC SERVICE. For summary of the Electrical Service Drop Locations see the schedule contained elsewhere herein.

CONSTRUCTION REQUIREMENTS

General. It shall be the Contractor's responsibility to contact ComEd. The Contractor shall coordinate his work fully with the ComEd both as to the work required and the timing of the installation. No additional compensation will be granted under this or any other item for extra work caused by failure to meet this requirement. **Please contact ComEd, New Business Center Call Center, at 866 NEW ELECTRIC (1-866-639-3532) to begin the service connection process. The Call Center Representatives will create a work order for the service connection. The representative will ask the requestor for information specific to the request. The representative will assign the request based upon the location of project.**

The Contractor should make particular note of the need for the earliest attention to arrangements with ComEd for service. In the event of delay by ComEd, no extension of time will be considered applicable for the delay unless the Contractor can produce written evidence of a request for electric service within 30 days of execution.

Method Of Payment. The Contractor will be reimbursed to the exact amount of money as billed by ComEd for its services. Work provided by the Contractor for electric service will be paid separately as described under ELECTRIC SERVICE INSTALLATION. No extra compensation shall be paid to the Contractor for any incidental materials and labor required to fulfill the requirements as shown on the plans and specified herein.

For bidding purposes, this item shall be estimated as \$1000

Unit Duct

Revise the first paragraph of Article 810.04 to read:

“The unit duct shall be installed at a minimum depth of 30-inches (760 mm) unless otherwise directed by the Engineer.”

Revise Article 1088.01(c) to read:

“(c) Coilable Nonmetallic Conduit.

General:

The duct shall be a plastic duct which is intended for underground use and which can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties of performance. The duct shall be a plastic duct which is intended for underground use and can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties of performance.

The duct shall be made of high density polyethylene which shall meet the requirements of ASTM D 2447, for schedule 40. The duct shall be composed of black high density polyethylene meeting the requirements of ASTM D 3350, Class C, Grade P33. The wall thickness shall be in accordance with Table 2 for ASTM D 2447.

The duct shall be UL Listed per 651-B for continuous length HDPE coiled conduit. The duct shall also comply with NEC Article 354.100 and 354.120.

Submittal information shall demonstrate compliance with the details of these requirements.

Dimensions:

Duct dimensions shall conform to the standards listed in ASTM D2447. Submittal information shall demonstrate compliance with these requirements.

Nominal Size		Nominal I.D.		Nominal O.D.		Minimum Wall	
mm	in	mm	in	mm	in	mm	in
31.75	1.25	35.05	1.380	42.16	1.660	3.556 +0.51	0.140 +0.020
38.1	1.50	40.89	1.610	48.26	1.900	3.683 +0.51	0.145 +0.020

Nominal Size		Pulled Tensile	
mm	in	N	lbs
31.75	1.25	3322	747

38.1	1.50	3972	893
------	------	------	-----

Marking:

As specified in NEMA Standard Publication No. TC-7, the duct shall be clearly and durably marked at least every 3.05 meters (10 feet) with the material designation (HDPE for high density polyethylene), nominal size of the duct and the name and/or trademark of the manufacturer.

Performance Tests:

Polyethylene Duct testing procedures and test results shall meet the requirements of UL 651. Certified copies of the test report shall be submitted to the Engineer prior to the installation of the duct. Duct crush test results shall meet or exceed the following requirements:

Duct Diameter		Min. force required to deform sample 50%	
mm	in	N	lbs
35	1.25	4937	1110
41	1.5	4559	1025

Wire and Cable

Add the following to the first paragraph of Article 1066.02(a):

“The cable shall be rated at a minimum of 90°C dry and 75°C wet and shall be suitable for installation in wet and dry locations, and shall be resistant to oils and chemicals.”

Revise the Aerial Electric Cable Properties table of Article 1066.03(a)(3) to read:

Aerial Electric Cable Properties

Phase Conductor		Messenger wire			
Size AWG	Stranding	Average Insulation Thickness		Minimum Size AWG	Stranding
		mm	mils		
6	7	1.1	(45)	6	6/1
4	7	1.1	(45)	4	6/1
2	7	1.1	(45)	2	6/1
1/0	19	1.5	(60)	1/0	6/1
2/0	19	1.5	(60)	2/0	6/1
3/0	19	1.5	(60)	3/0	6/1
4/0	19	1.5	(60)	4/0	6/1

Add the following to Article 1066.03(b) of the Standard Specifications:

“Cable sized No. 2 AWG and smaller shall be U.L. listed Type RHH/RHW and may be Type RHH/RHW/USE. Cable sized larger than No. 2 AWG shall be U.L. listed Type RHH/RHW/USE.”

Revise Article 1066.04 to read:

“Aerial Cable Assembly. The aerial cable shall be an assembly of insulated aluminum conductors according to Section 1066.02 and 1066.03. Unless otherwise indicated, the cable assembly shall be composed of three insulated conductors and a steel reinforced bare aluminum conductor (ACSR) to be used as the ground conductor. Unless otherwise indicated, the code word designation of this cable assembly is “Palomino”. The steel reinforced aluminum conductor shall conform to ASTM B-232. The cable shall be assembled according to ANSI/ICEA S-76-474.”

Revise the second paragraph of Article 1066.05 to read:

“The tape shall have reinforced metallic detection capabilities consisting of a woven reinforced polyethylene tape with a metallic core or backing.”

FLOOD LIGHTING UNIT, WITH GFCI RECEPTACLE AND ENCLOSURE

Description. This work shall consist of furnishing and installing LED tree up-light and a GFCI duplex receptacle with weatherproof enclosure in landscaping where shown on the Contract Drawings.

All work related material and labor to the installation of the LED light assembly shall be included (fixture, matching architectural junction box, rigid galvanized steel conduit, transition coupling, excavation, receptacle, backfill, disposal of surplus excavate material, etc.) The wiring and HDPE conduit will be paid for separately.

Materials. All materials shall be in accordance with the contract plan drawings and Section 1066 of the Standard Specifications. The junction box shall be supported by two (2) rigid galvanized steel conduits. The above grade conduits shall be primed and painted black with an approved exterior black paint. All materials shall be in accordance with the contract plan drawings and requirements.

Construction Requirements. All work shall be installed as shown on the contract plan drawings, N.E.C., and in accordance with Sections 801, 810, 811 and 817 of the Standard Specifications.

The Contractor shall be responsible for coordinating all work.

LIGHTED BOLLARD AND FOUNDATION, COMPLETE IN PLACE

Description. This work shall consist of furnishing and installing a lighted bollard and associated concrete foundation where shown on the Contract Drawings.

All work related material and labor to the installation of the lighted bollard shall be included (bollard, concrete foundation, excavation, backfill, disposal of surplus excavate material, etc.)

Materials. All materials shall be in accordance with the contract plan drawings and Sections 1066 and 1070 of the Standard Specifications. All materials shall be in accordance with the contract plan drawings and requirements.

Construction Requirements. The bollard shall be installed in accordance with manufacturer's recommendations. All work shall be installed as shown on the contract plan drawings, N.E.C., and in accordance with Sections 801, 810, 817, 821, 830 and 836 of the Standard Specifications.

The Contractor shall be responsible for coordinating all work.

Z0033024 MAINTAIN EXISTING LIGHTING SYSTEM

Description. Effective the date the Contractor's activities (electrical or otherwise) at the job site begin, the Contractor shall be responsible for the proper operation and maintenance of all existing and proposed lighting systems which are part of, or which may be affected by the work until final acceptance or as otherwise determined by the Engineer.

At least one week prior to the beginning of construction of the proposed street lighting system, the contractor shall conduct an inspection of the existing lighting units with a representative of the agency responsible for maintenance. The inspection shall reveal defective lighting items such as cable, mast arms, luminaries, poles, and all other appurtenances that combine for a complete operating unit. The CONTRACTOR shall not be responsible for these items. In case the contractor fails to contact the maintaining agency for this inspection, the CONTRACTOR shall be held responsible for all items remaining defective at the completion of the contract.

The CONTRACTOR shall become responsible for the maintenance of the existing lighting units on a date mutually agreed upon between the CONTRACTOR and the maintaining agency representative but no later than the beginning of any construction within the limits of this project. If any mobilization or any type of work begins on this project, the CONTRACTOR shall assume complete maintenance at that point and assume all deficiencies at their own expense. This maintenance shall remain in effect until written notice of final acceptance of the proposed lighting system is issued by the ENGINEER. Only after this requirement has been satisfied may the contractor begin removal operations of the existing lighting units.

Maintenance of Existing Lighting Systems

Existing lighting systems. Existing lighting systems shall be defined as any lighting system or part of a lighting system in service prior to this contract. The contract drawings indicate the general extent of any existing lighting, but whether indicated or not, it remains

the Contractor's responsibility to ascertain the extent of effort required for compliance with these specifications and failure to do so will not be justification for extra payment or reduced responsibilities.

Existing Lighting Systems Requiring Maintenance.

Village of Lincolnshire Lighting System – Full Maintenance: Approximately 27 light poles, 5 lighted bollards and 8 bridge lights are connected to a central lighting controller. Light poles are in parking lots and along the roadways.

Extent of Maintenance.

Partial Maintenance. Unless otherwise indicated, if the number of circuits affected by the contract is equal to or less than 40% of the total number of circuits in a given controller and the controller is not part of the contract work, the Contractor needs only to maintain the affected circuits. The affected circuits shall be isolated by means of in-line waterproof fuse holders as specified elsewhere and as approved by the Engineer.

Full Maintenance. If the number of circuits affected by the contract is greater than 40% of the total number of circuits in a given controller, or if the controller is modified in any way under the contract work, the Contractor shall maintain the entire controller and all associated circuits (including sign lights).

Maintenance of Proposed Lighting Systems

Proposed Lighting Systems. Proposed lighting systems shall be defined as any lighting system or part of a lighting system which is to be constructed under this contract. The Contractor shall be fully responsible for maintenance of all items installed under this contract. Maintenance shall include, but not be limited to, any equipment failures or malfunctions as well as equipment damage either by the motoring public, Contractor operations, or other means. The potential cost of replacing or repairing any malfunctioning or damaged equipment shall be included in the bid price of this item and will not be paid for separately.

Lighting System Maintenance Operations

The Contractor's responsibility shall include the maintenance of lighting units (including bollard lighting), cable runs and lighting controls. In the case of a pole knockdown or bollard light damage caused by normal vehicular traffic, the Contractor shall promptly clear the lighting unit and circuit discontinuity and restore the system to service.

Responsibilities shall also include weekly night-time patrol of the lighting system, with patrol reports filed immediately with the Engineer and with deficiencies corrected within 24 hours of the patrol. Patrol reports shall be presented on standard forms as designated by the Engineer. Uncorrected deficiencies may be designated by the Engineer as necessitating emergency repairs as described elsewhere herein.

The following chart lists the maximum response, service restoration, and permanent repair time the Contractor will be allowed to perform corrective action on specific lighting system equipment.

INCIDENT OR PROBLEM	SERVICE RESPONSE TIME	SERVICE RESTORATION TIME	PERMANENT REPAIR TIME
Control cabinet out	1 hour	4 hours	7 Calendar days
Hanging mast arm	1 hour to clear	n/a	7 Calendar days
Radio problem	1 hour	4 hours	7 Calendar days
Motorist caused damage or leaning light pole 10 degrees or more	1 hour to clear	4 hours	7 Calendar days
Circuit out – Needs to reset breaker	1 hour	4 hours	n/a
Circuit out – Cable trouble	1 hour	24 hours	21 Calendar days
Outage of 3 or more successive lights	1 hour	4 hours	n/a
Outage of 75% of lights on one tower	1 hour	4 hours	n/a
Outage of light nearest RR crossing approach, Islands and gores	1 hour	4 hours	n/a
Outage (single or multiple) found on night outage survey or reported to EMC	n/a	n/a	7 Calendar days
Navigation light outage	n/a	n/a	24 hours

- **Service Response Time** -- amount of time from the initial notification to the Contractor until a patrolman physically arrives at the location.
- **Service Restoration Time** – amount of time from the initial notification to the Contractor until the time the system is fully operational again (In cases of motorist caused damage the undamaged portions of the system are operational.)
- **Permanent Repair Time** – amount of time from initial notification to the Contractor until the time permanent repairs are made if the Contractor was required to make temporary repairs to meet the service restoration requirement.

Failure to provide this service will result in liquidated damages of \$500 per day per occurrence. In addition, the Department reserves the right to assign any work not completed within this timeframe to the Electrical Maintenance Contractor. All costs associated to repair this uncompleted work shall be the responsibility of the Contractor. Failure to pay these costs to the Electrical Maintenance Contractor within one month after the incident will result in additional liquidated damages of \$500 per month per occurrence. Unpaid bills will be deducted from the cost of the Contract. Repeated failures and/or a gross failure of maintenance shall result in the State’s Electrical Maintenance Contractor being directed to correct all deficiencies and the resulting costs deducted from any monies owed the contractor.

Damage caused by the Contractor’s operations shall be repaired at no additional cost to the Contract.

Operation of Lighting

The lighting shall be operational every night, dusk to dawn. Duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously. Lighting systems shall not be kept in operation during long daytime periods. The contractor shall demonstrate to the satisfaction of the Engineer that the lighting system is fully operational prior to submitting a pay request. Failure to do so will be grounds for denying the pay request.

END OF SECTION

Appendix A

Bid Bond Form



Route _____
County _____
Local Agency _____
Section _____

RETURN WITH BID

PAPER BID BOND

WE _____ as PRINCIPAL,
and _____ as SURETY,
are held jointly, severally and firmly bound unto the above Local Agency (hereafter referred to as "LA") in the penal sum of 5% of the total bid price, or for the amount specified in the proposal documents in effect on the date of invitation for bids whichever is the lesser sum. We bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly pay to the LA this sum under the conditions of this instrument.

WHEREAS THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the said PRINCIPAL is submitting a written proposal to the LA acting through its awarding authority for the construction of the work designated as the above section.

THEREFORE if the proposal is accepted and a contract awarded to the PRINCIPAL by the LA for the above designated section and the PRINCIPAL shall within fifteen (15) days after award enter into a formal contract, furnish surety guaranteeing the faithful performance of the work, and furnish evidence of the required insurance coverage, all as provided in the "Standard Specifications for Road and Bridge Construction" and applicable Supplemental Specifications, then this obligation shall become void; otherwise it shall remain in full force and effect.

IN THE EVENT the LA determines the PRINCIPAL has failed to enter into a formal contract in compliance with any requirements set forth in the preceding paragraph, then the LA acting through its awarding authority shall immediately be entitled to recover the full penal sum set out above, together with all court costs, all attorney fees, and any other expense of recovery.

IN TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this _____ day of _____

Principal

(Company Name) _____
By: _____ By: _____
(Signature and Title) (Signature and Title)

(If PRINCIPLE is a joint venture of two or more contractors, the company names, and authorized signatures of each contractor must be affixed.)

Surety

(Name of Surety) By: _____
(Signature of Attorney-in-Fact)

STATE OF ILLINOIS,
COUNTY OF _____
I, _____, a Notary Public in and for said county,
do hereby certify that _____

(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instruments as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of _____

My commission expires _____
(Notary Public)

ELECTRONIC BID BOND

[] Electronic bid bond is allowed (box must be checked by LA if electronic bid bond is allowed)

The Principal may submit an electronic bid bond, in lieu of completing the above section of the Proposal Bid Bond Form. By providing an electronic bid bond ID code and signing below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the LA under the conditions of the bid bond as shown above. (If PRINCIPAL is a joint venture of two or more contractors, an electronic bid bond ID code, company/Bidder name title and date must be affixed for each contractor in the venture.)

Electronic Bid Bond ID Code

Electronic Bid Bond ID Code

(Company/Bidder Name)

(Signature and Title)

Date

Appendix B

Contract Agreement Form

**Lincolnshire Downtown Pocket Park
CONTRACT**

THIS AGREEMENT made this _____ day of _____, 20____, by and between the Village of Lincolnshire, County of Lake, State of Illinois, hereinafter called the "Village", and, _____, of _____ (address) hereinafter called "Contractor".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor will furnish all materials, supplies, tools, equipment, labor and other services necessary to commence and complete the **Downtown Pocket Park Project**, in accordance with the conditions and prices stated in the Proposal, Notice to Contractors, Instructions to Bidders, Plans and Specifications, and Schedule of Unit Prices all of which are made a part hereof and herein called "Contract Documents."
2. All terms, conditions, representations, specifications, promises, and undertakings contained in the Bidders Proposal, the Instructions to Bidders, Specifications for _____, and Supplemental Special Provisions of this contract, form part and partial this contract as if they were fully set forth herein.
3. The owner will pay the Contractor in the amounts, manner and at times as set forth in the Contract Documents.
4. This agreement is binding upon the parties hereto and their respective heirs, executors, administrators, successors or assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement as of the day and year first above written.

Attest:
By _____
Signature
Village Clerk

Village of Lincolnshire:
By _____
Signature
Mayor

Attest:

Signature

Printed Name and Title

(Contractor)

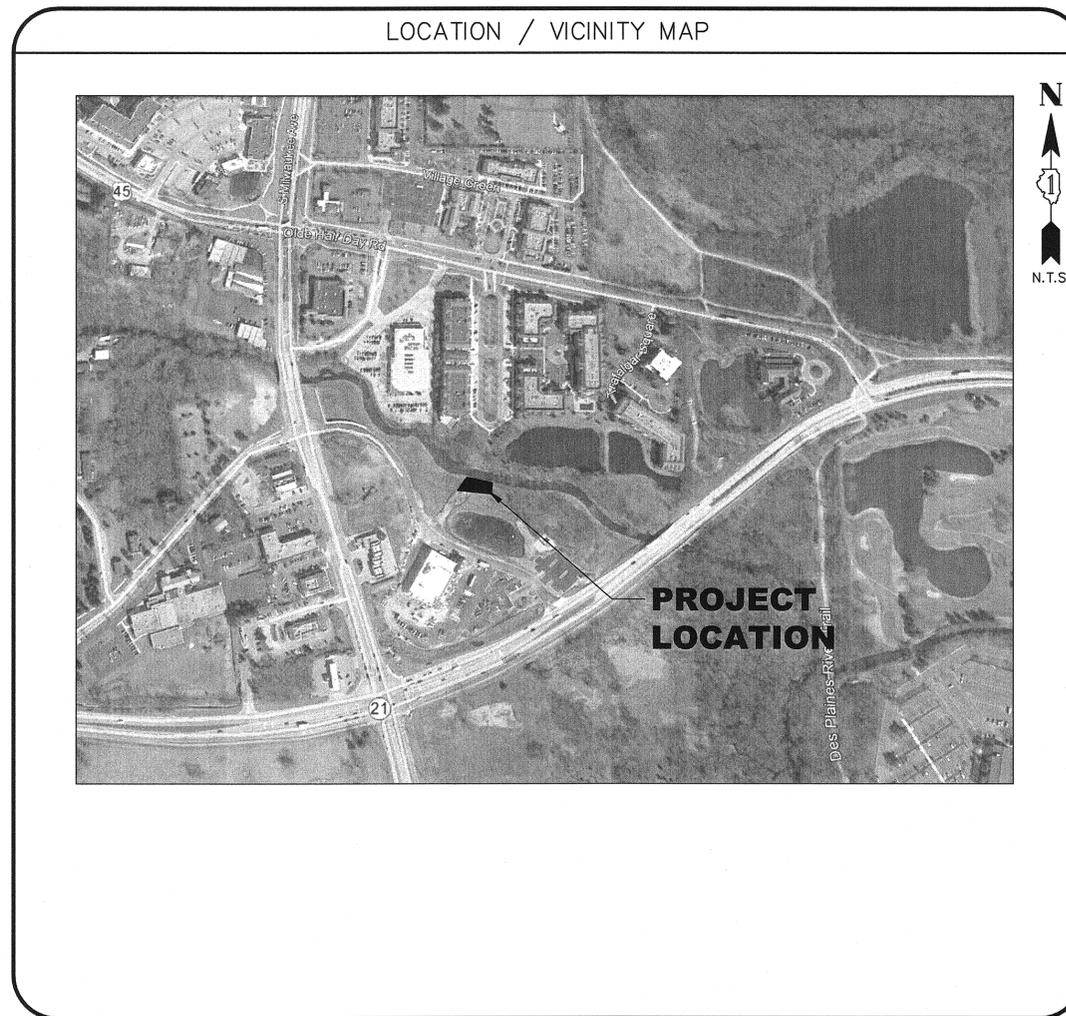
Signature

Printed Name and Title

VILLAGE OF LINCOLNSHIRE

DOWNTOWN POCKET PARK

INDEX	
SHT #	DRAWING TITLE
1	TITLE PAGE
EXH - 1	GENERAL NOTES, SUMMARY OF QUANTITIES AND REMOVALS
ECP-1	EROSION CONTROL AND SITE PROTECTION
ECP-2	EROSION CONTROL DETAILS
M-1	NOTES & BILL OF MATERIALS
M-2	PROPOSED IMPROVEMENT PLAN
M-3	EXISTING LIGHTING PLAN
M-4	LIGHTING DETAILS - 1
M-5	LIGHTING DETAILS - 2
M-6	LIGHTING DETAILS - 3
M-7	DRINKING FOUNTAIN DETAILS
SD-1	GRADING PLAN
SD-2	LAYOUT PLAN
SD-3	SITE DETAILS
L-1	LANDSCAPE PLAN



- NOTES
- DRAWINGS SHALL BE USED AS A COMPLETE SET ONLY. DO NOT SEPARATE SHEETS.
 - THE VILLAGE OF LINCOLNSHIRE AND CHRISTOPHER B. BURKE ENGINEERING, LTD., SHALL BE NOTIFIED IN WRITING BY THE CONTRACTOR AT LEAST THREE (3) FULL WORKING DAYS PRIOR TO CONSTRUCTION.

DESCRIPTION OF WORK

THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT, LABOR, AND SERVICES FOR THE CONSTRUCTION OF THE POCKET PARK. WORK TO INCLUDE; REMOVAL OF INDICATED TREES AND VEGETATION. INSTALLATION OF EROSION CONTROL MEASURES, REMOVAL OF EXISTING SIDEWALK, INSTALLATION OF NEW HARDSCAPE SURFACES, SITE FURNITURE, LANDSCAPE PLANT MATERIAL, AND GENERAL SITE RESTORATION

PERMITS

LAKE COUNTY WATERSHED
DEVELOPMENT PERMIT

MAYOR
LIZ BRANDT

TRUSTEES
KAREN FELDMAN
MARK HANCOCK
GERARD LEIDER
TOM McDONOUGH
DAN SERVI
MARA GRUJANAC

VILLAGE CLERK
BARBARA MASTANDREA

VILLAGE MANAGER
BRAD BURKE

BENCHMARK

SEE GRADING PLAN

LOCATION

THE PROJECT IS LOCATED ON INDIAN CREEK JUST OFF THE FRESH MARKET SPINE ROAD IN THE VILLAGE OF LINCOLNSHIRE

CALL JULIE 811
WITH THE FOLLOWING:
COUNTY LAKE
CITY-TOWNSHIP LINCOLNSHIRE



48 HOURS BEFORE YOU DIG.
EXCLUDING SAT., SUN., & HOLIDAYS

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION



N. Morel
ENGINEER 3/25/16
DATE

NICHOLAS J. MOREL
ILLINOIS REGISTRATION No. 062-060393
EXPIRATION DATE: 11/30/17

CLIENT :  Village of
Lincolnshire
One Olde Half Day Road
Lincolnshire, Illinois 60069

 **CHRISTOPHER B. BURKE ENGINEERING, LTD.**
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

PROFESSIONAL DESIGN FIRM NO. 184-001175
EXPIRATION DATE: 04/30/15

MARCH 25, 2016
CBBEL PROJECT NO. 130540

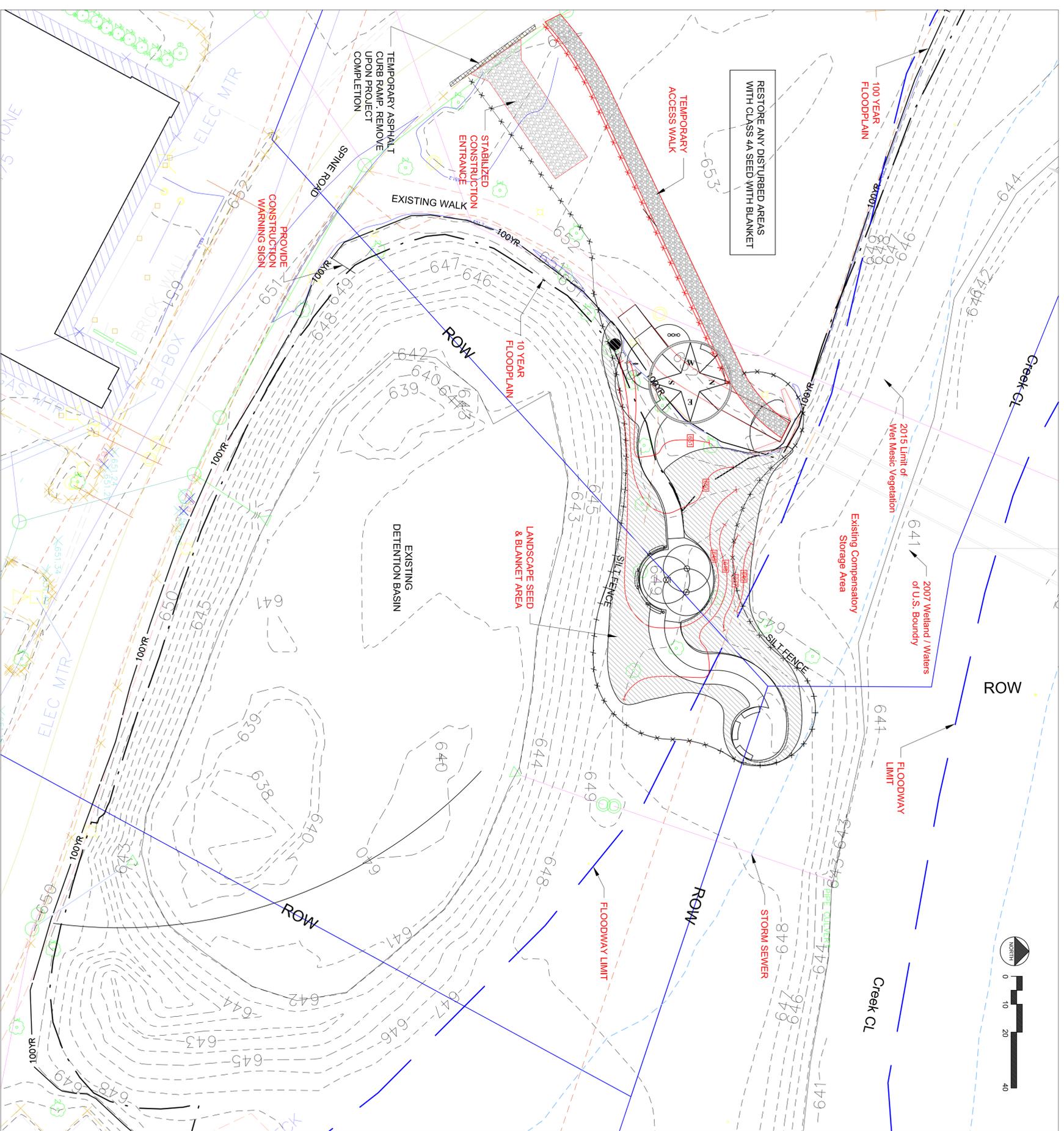
\$DATE\$ \$USER\$ \$FILE\$

SEDIMENTATION AND EROSION CONTROL NOTES

- A. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
- B. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
- C. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 14 CALENDAR DAYS OF THE END OF ACTIVE HYDROLOGIC DISTURBANCE, OR REDISTURBANCE.
- D. AREAS OR ENBANKMENTS HAVING SLOPES GREATER THAN OR EQUAL TO 4H:1V, AND APPROVED BY THE ENFORCEMENT OFFICER, SHALL BE STABILIZED WITH SOD, MAT OR BLANKET IN COMBINATION WITH SEEDING.
- E. EROSION CONTROL BLANKET SHALL BE REQUIRED ON ALL INTERIOR DETENTION BASIN SIDE SLOPES BETWEEN NORMAL WATER LEVEL AND HIGH WATER LEVEL.
- F. ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
- G. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- H. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE PROPERTY OWNER SHALL BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND REPAIR.
- I. A STABILIZED MAT OF AGGREGATE UNDERLAIN WITH FILTER CLOTH (OR OTHER APPROPRIATE MEASURE) SHALL BE LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA. ANY SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- J. SOIL STOCKPILES SHALL NOT BE LOCATED IN A FLOOD PRONE AREA OR A DESIGNATED BUFFER PROTECTING WATERS OF THE UNITED STATES OR ISOLATED WATERS OF LAKE COUNTY.
- K. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (e.g. SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURE).
- L. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.

TYPICAL CONSTRUCTION SEQUENCING

- 1.) Installation of soil erosion and sediment control SE/SC measures
 - a.) Selective vegetation removal for silt fence installation
 - b.) Silt fence installation
 - c.) Construction fencing around areas not to be disturbed
 - d.) Stabilized construction entrance
 - 2.) Tree removal where necessary (clear & grub)
 - 3.) Strip topsoil, stockpile topsoil and grade site
 - 4.) Temporarily stabilize topsoil stockpiles (seed and silt fence around toe of slope)
 - 5.) Permanently stabilize detention basins with seed and erosion control blanket
 - 6.) 14.) Remove all temporary SE/SC measures after the site is stabilized with vegetation
- * Soil erosion and sediment control maintenance must occur every two weeks and after every ½ or greater rainfall event



CLIENT:

Village of
Pincolnshire
One Olde Hart Day Road
Lincolnshire Illinois 60069

1	6-26-15	LAKE COUNTY SMC	US	DSGN.	DWG
				CHKD.	JGS
				SCALE:	1" = 20'
				PLOT DATE:	
				CAD USER:	
				CHKD. MODEL:	
				NATURE OF REVISION	
				FILE NAME	N:\Lincolnshire\20284\Civil\Ref

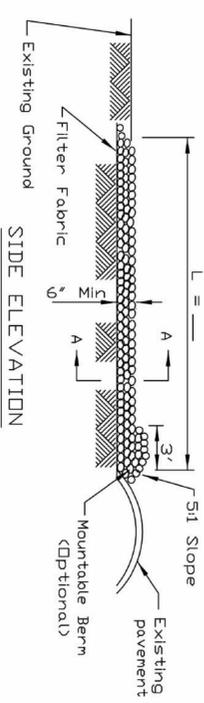
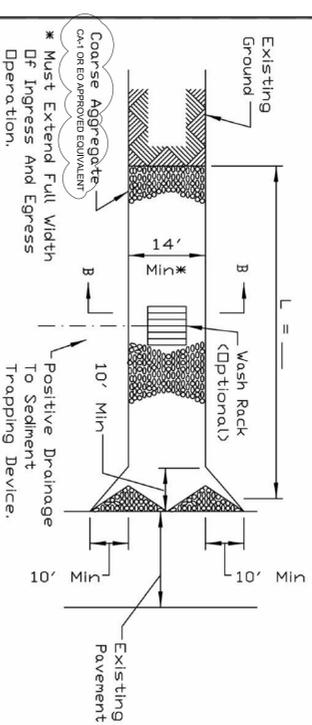
TITLE:

**EROSION CONTROL AND
SITE PROTECTION**

PROJ. NO. 130540
DATE: 3-25-16
SHEET 3 OF 15
DRAWING NO. ECP-1

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

STABILIZED CONSTRUCTION ENTRANCE PLAN



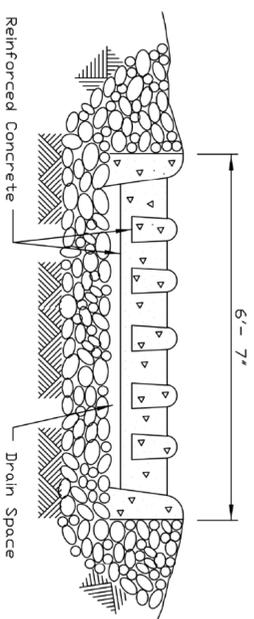
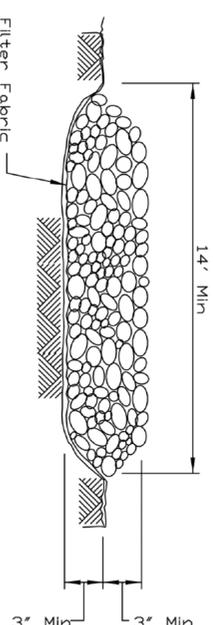
- NOTES:
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
 2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, ~~Rock 3~~ or CA-4 and be placed according to construction specification 25 ROCK-FILL using placement Method 1 and Class III compaction.
 3. Any drainage facilities required because of washing shall be constructed according to manufacturer's specifications.
 4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE Project	DATE	STANDARD DWG. NO.
Designed	DATE	IL-630
Checked	DATE	SHEET 1 OF 2
Approved	DATE	9-18-94



Natural Resource Conservation Service

STABILIZED CONSTRUCTION ENTRANCE PLAN



REFERENCE Project	DATE	STANDARD DWG. NO.
Designed	DATE	IL-630
Checked	DATE	SHEET 2 OF 2
Approved	DATE	9-18-94



Natural Resource Conservation Service

SILT FENCE DETAIL

1. Set posts and concrete or sill-trench a 6-inch deep trench upsize along the line of the post.
2. Attach the geotextile filter fabric to each post with staples.
3. Backfill and compact the excavated soil materials.

Standard Treatment - Tail Method - MATRY

Grab weight	ASTM D 4532	500 N
Mechanic division		450 N
-X-machine direction		
Perfority	ASTM D 4491	0.05 444-1
Aperture opening size	ASTM D 4771	0.80 mm
Ultraviolet stability (residual strength)	ASTM D 4555	70% after 500 hours

Note: Values for aperture opening size represents maximum average cell width.

2 (two) inch nominal hardwood posts or UTL or C angles, steel posts with a minimum weight of 1.25 lbs/ft

Geotextile fabric

Compacted soil

Fabric extension into the trench

Post and fabric height above ground = 30 in.

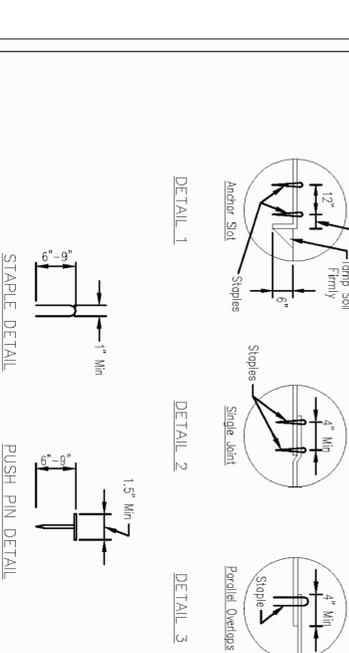
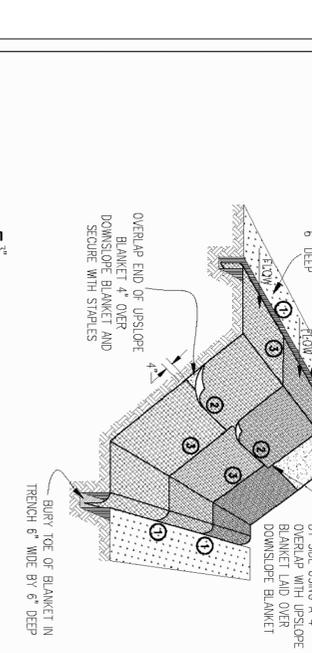
Buried depth = 18 in.

DATE: 4/21/08 BY: RJK

REVISOR: BR

STORMWATER MANAGEMENT COMMISSION

EROSION CONTROL BLANKET INSTALLATION DETAILS



- NOTES:
1. Staples shall be placed in a diamond pattern at 2' per s.y. for staked blankets. Non-staked shall use 4 staples per s.y. of material. This equates to 200 staples with staked blanket and 400 staples with non-staked blanket per 100 s.y. of material.
 2. Staple or push pin lengths shall be selected based on soil type and conditions; (minimum staple length is 6")
 3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
 4. All anchor slots shall be stapled at approximately 12" intervals.

Sheet 1 of 1	DATE	Checked
1	11/08	Checked



Natural Resource Conservation Service

CLIENT:

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

Village of Pincolnshire
One Olde Half Day Road
Lincolnshire Illinois 60069

NO.	DATE	NATURE OF REVISION
1	6-26-15	LAKE COUNTY SMC

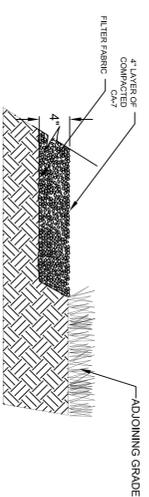
PROJ. NO. 130540
DATE: 3-25-16
SHEET 4 OF 15
DRAWING NO. ECP-2

GENERAL NOTES

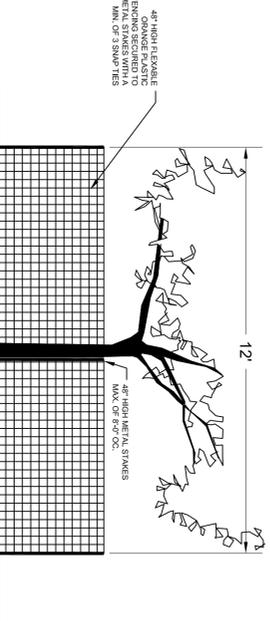
1. THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION, THE "SUPPLEMENTAL SPECIFICATIONS AND REQUIRING SPECIAL PROVISIONS", LATEST EDITION, THE LATEST EDITION OF THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, (MUTCD), THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION, PROJECT SPECIFICATIONS, "DETAILS" IN THE PLANS THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS, ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, ALL APPLICABLE REQUIREMENTS OF THE ORDINANCES OF AUTHORITIES HAVING JURISDICTION AND ALL ADDENDA THERETO SHALL GOVERN THIS WORK.
2. THE STANDARD SPECIFICATIONS, PROJECT SPECIFICATIONS, CONSTRUCTION PLANS AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.
3. NO CONSTRUCTION PLANS SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED FOR CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE ENGINEER'S LINE AND GRADES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSION OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.
4. BEFORE ACCEPTANCE BY THE OWNER AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVED BY THE OWNER OR HIS REPRESENTATIVES. FINAL PAYMENT WILL BE MADE AFTER ALL OF THE CONTRACTOR'S WORK HAS BEEN APPROVED AND ACCEPTED.
5. WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.
7. WHENEVER THE PERFORMANCE OF WORK IS INDICATED ON THE PLANS AND NO ITEM IS INCLUDED ON THE CONTRACT FOR PAYMENT, THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
8. DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHALL ENSURE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY. SITE DRAINAGE MAY BE ACHIEVED BY DITCHING, PUMPING OR ANY OTHER METHOD ACCEPTABLE TO THE ENGINEER AND THE OWNER.
9. ALL CONSTRUCTION WILL BE INSPECTED BY THE ENGINEER AND THE OWNER. SPECIFICALLY ALL TRENCHES AND SEWERS SHALL BE LEFT OPEN (BUT SAFELY BARRICADED) UNTIL INSPECTED AND APPROVED BY THE VILLAGE ENGINEER.
10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE FROM THE SITE ANY AND ALL MATERIALS AND DEBRIS WHICH RESULT FROM HIS CONSTRUCTION OPERATIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.
11. WHEN A CONFLICT BETWEEN PLANS AND SPECIFICATIONS OR NOTES OCCURS, THE ENGINEER SHALL DECIDE WHICH GOVERNS. GENERALLY, THE MORE RESTRICTIVE, MORE SPECIFIC, OR STRICTER PROVISION SHALL GOVERN.
12. CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL AREAS AFFECTED BY EQUIPMENT OR LABORERS TO EXISTING CONDITIONS. CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL COMPLETION OF THIS CONTRACT.
13. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ARCHITECT, THE ENGINEER, THE VILLAGE OF LINCOLNSHIRE AND THEIR AGENTS, FROM ALL LIABILITY INVOLVED IN THE CONSTRUCTION, INSTALLATION AND TESTING OF THE WORK ON THIS PROJECT.
14. THE CONTRACTOR MUST CARRY INSURANCE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND MUST PRESENT A JOB-SPECIFIC CERTIFICATE OF INSURANCE NAMING ALL OFFICIALS AND EMPLOYEES OF THE VILLAGE AND THE ENGINEER, AS ADDITIONAL INSURED.
15. ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.
16. EXISTING UTILITIES: WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES, J.U.L.I.E., THE VILLAGE OF LINCOLNSHIRE DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.
17. THE VILLAGE OF LINCOLNSHIRE IS A MEMBER OF J.U.L.I.E.
18. AGGREGATE SPECIFIED ON THESE PLANS SHALL BE CONSIDERED CRUSHED STONE MEETING THE GRADATION SPECIFIED. CRUSHED CONCRETE MAY NOT BE SUBSTITUTED FOR CRUSHED STONE UNLESS THE CONTRACTOR OBTAINS WRITTEN AUTHORIZATIONS FROM THE OWNER, THE ENGINEER AND THE MUNICIPALITY.
19. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 700 OF THE STANDARD SPECIFICATIONS.
20. ALL DISTURBED NON-PAVED AREAS SHALL BE ROUGH GRADED. THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION PREVENTION AND REPAIR.
21. STOCKPILES AND SHALES SHALL BE SEEDED OR MULCHED IN ACCORDANCE WITH THE IDOT SEEDING AND MULCHING SPECIFICATIONS.
22. SPREAD A MINIMUM OF 6" OF PULVERIZED TOPSOIL ON ALL DISTURBED TURF AREAS AND PROPOSED GREEN AREAS. TOPSOIL MUST BE FREE OF ROCKS AND EARTH CLOUDS OF GREATER THAN 1" IN ANY DIMENSION. FINE GRADE FOR MINIMUM 1% SLOPE FOR DRAINAGE AND SEED.
23. THE CONTRACTOR IS ADVISED THAT MUD AND DEBRIS MUST NOT BE DEPOSITED ON THE ADJACENT ROADWAYS. ANY DIRT AND DEBRIS ACCUMULATED ON THE PAVEMENT SHALL BE CLEANED BY THE CONTRACTOR WITHIN FOUR (4) HOURS OF THE INCIDENT OR HE WILL BE BACK CHARGED AT THE RATE OF \$500.00 PER INCIDENT PLUS THE COST OF THE VILLAGE'S FORCES TO COMPLETE THE WORK.
24. USE OF GOOD FILL OPERATIONS: IF THE CONTRACTOR CHOOSES TO DISPOSE OF UNCONTAMINATED SOIL MIXED WITH CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CGDD) AT A GOOD FILL OPERATION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL NECESSARY FIELD AND LABORATORY ANALYSIS AND TO OBTAIN THE LICENSED PROFESSIONAL ENGINEER'S CERTIFICATION REQUIRED AS PER PUBLIC ACT 96-1416 TO USE THE SITE. NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

NOTE: NOTES THAT ARE BOXED INDICATE INCIDENTAL WORK

TREES LABELED TO BE RELOCATED WILL REMAIN ON SITE. OWNER WILL DIRECT CONTRACTOR WHERE THE TRANSPLANTED TREES WILL BE RELOCATED



TEMP. WALK DETAIL



TREE PROTECTION DETAIL

SUMMARY OF QUANTITIES

SITE CLEARING, PROTECTION AND EROSION CONTROL

ITEM	Qty.	Unit
Site Cleaning	0.21	AC
Tree Removal and Relocate (2-6" cal.)	8	EA
EX. Sidewalk Removal	66	SY
Stabilized Construction Entrance	78	SY
Temporary Access Path	115	SY
Temporary Fence (4')	150	LF
Tree Protection Fence	72	LF
Temporary Asphalt Curb Ramp	24	LF
Erosion Control Fence	520	LF

EARTHWORK

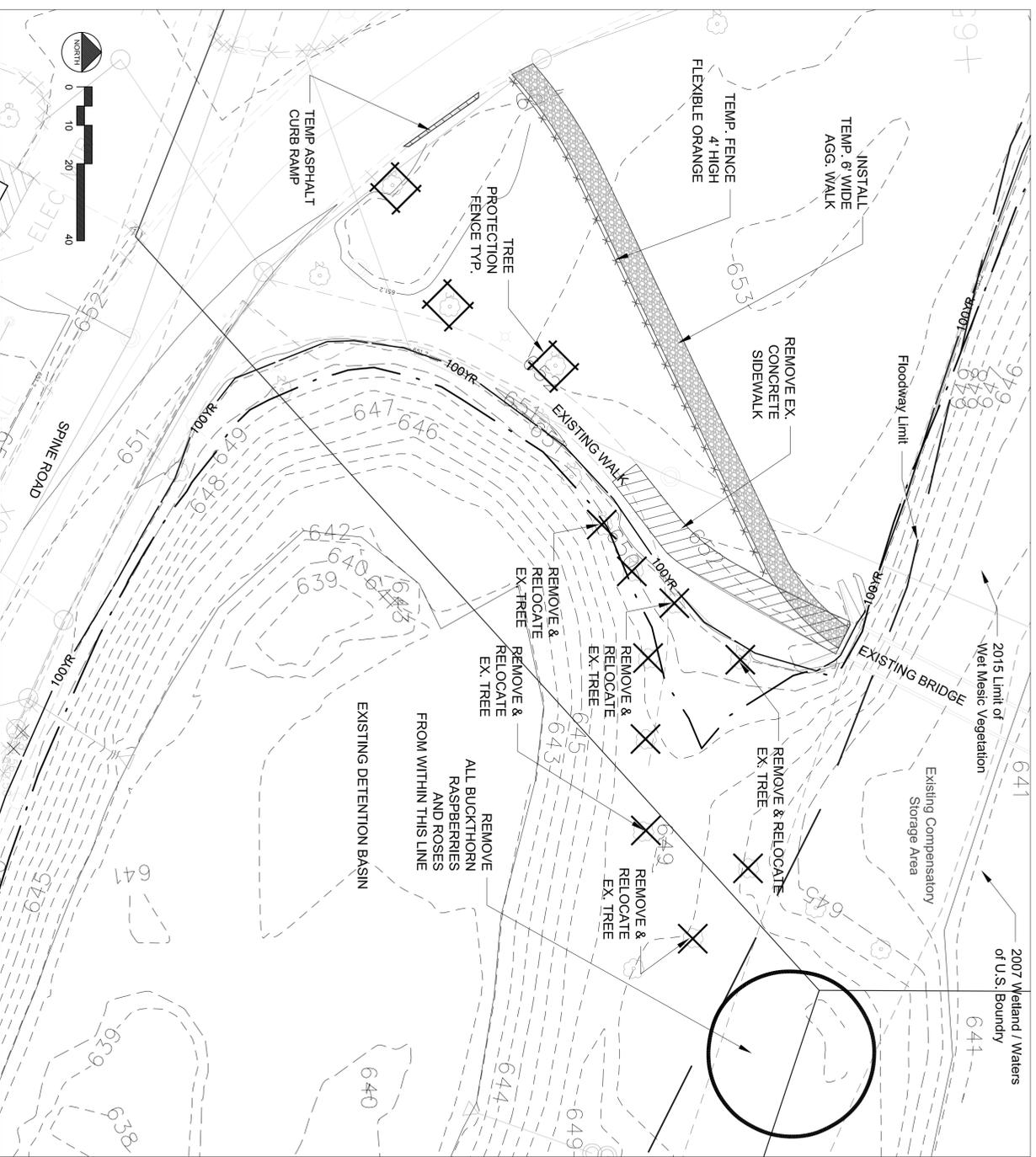
Fill	52	CY
Topsoil Fill	80	CY
Cut	100	CY

SITE WORK

Concrete Sidewalk	114	SY
Colored Concrete	192	SF
Brick Edge	95	LF
Firmpave	587	SF
Concrete Base for Safety Surface	587	SF
Synthetic Safety Surface	940	SF

SITE FURNISHINGS

Benches	9	EA
Arbor	1	LS
Bike Racks	2	EA
Pondrora Sculpture	1	LS
Grass Gotic Play Pieces	3	LS
Compass Letters	4	LS



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Village of
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Lincolnshire Illinois 60069

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
1	6-26-15	LAKE COUNTY SMC	US	

DSGN.	DWG.	US	TITLE:
			GENERAL NOTES, SUMMARY OF QUANTITIES, AND REMOVALS

PROJ. NO. 130540	DATE: 3-25-16
SHEET 2 OF 15	DRAWING NO. EXH-1

PROJECT NOTES

1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/ DIRECTION AND MEANS/METHODS OF CONSTRUCTION.
2. NOT USED.
3. UNIT DUCT SIZE SHALL BE AS SHOWN ON PLANS.
4. NOT USED.
5. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT FROM THE VILLAGE OF LINCOLNSHIRE BEFORE THE START OF WORK, ANY COST FOR PERMIT SHALL BE INCIDENTAL.
6. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:
 - A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", AS PREPARED BY IDOT.
 - B. "THE NATIONAL ELECTRICAL CODE".
 - C. MUNICIPAL CODES & STANDARDS.
7. NO BOLLARDS SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED SUFFICIENTLY.
8. NOT USED.
9. NO MATERIALS SHALL BE DELIVERED TO THE JOB SITE UNTIL ALL PERTINENT EQUIPMENT SUBMITTALS HAVE BEEN REVIEWED BY THE OWNER'S REPRESENTATIVE.
10. THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE LIGHTING SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE AT 1-800-892-0123.
11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHTING EQUIPMENT FOR EXAMINATION AND CONFIRMATION WITH THE OWNER'S REPRESENTATIVE. ALL UTILITIES SHALL BE LOCATED PRIOR TO MARKING PROPOSED LOCATIONS.
12. GROUNDING CONNECTIONS AT THE FOUNDATION SHALL BE MECHANICAL TYPE UL LISTED FOR DIRECT BURIAL USE, AS SPECIFIED, AND SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE PRIOR TO POURING CONCRETE OR BACKFILLING, AS APPLICABLE.
13. THE INSTALLATION OF BURIED WARNING TAPE, SPECIFIED AS PART OF "TRENCH AND BACKFILL FOR ELECTRICAL WORK", SHALL BE REVIEWED BY THE RESIDENT ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS, AS APPLICABLE.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF THE TOP OF FOUNDATION ELEVATION WITH THE FINISHED GRADE AOND TOP OF CURB ELEVATIONS.
15. NOT USED.
16. THE CONTRACTOR SHALL LABEL ALL WIRES WITH WIRE MARKERS INDICATING THE CIRCUIT ID IN EVERY CONTROLLER, POLE BASE, HAND HOLE AND SPLICE/CONNECTION POINT. WIRE MARKERS SHALL BE MECHANICALLY FASTENED WHITE PLASTIC, TYPE "PLM" AS MANUFACTURED BY PANDUIT OR APPROVED EQUAL.
17. EQUIPMENT GROUND CONDUCTORS SHALL BE SPLICED AND BONDED AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT.
18. ALL DISTURBED AREA WHERE RESTORATION IS NOT COVERED BY APPLICABLE SECTIONS OF THE SPECIAL PROVISIONS MUST BE RESTORED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. THE WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT. SEPARATE PAYMENT WILL NOT BE MADE.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS INCLUDING ALL ABOVE AND BELOW GRADE APPURTENANCES. THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
20. THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF ANY EXISTING UTILITY SERVICE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT NO ADDITIONAL COST TO THE OWNER. THE COST ASSOCIATED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT.
21. THE ELECTRICAL CONTRACTOR SHALL FURNISH TWO SETS OF FULL SIZE RECORD DRAWINGS TO THE OWNER'S REPRESENTATIVE UPON COMPLETION OF THE LIGHTING AND ELECTRICAL IMPROVEMENTS. THE DRAWINGS SHALL SHOW THE INSTALLED LOCATIONS OF ALL LIGHT POLES, UNDERGROUND CONDUITS/WIRING, HANDHOLES, JUNCTION BOXES & CONTROLLER CABINETS. THE DRAWINGS WILL BE REVIEWED BY THE OWNER'S REPRESENTATIVE.
22. THE CONTRACTOR SHALL PERFORM ELECTRICAL TESTING AND VERIFY THAT THE INSTALLTION COMPLIES WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS.

PROJECT BILL OF MATERIALS

CODE NO.	DESCRIPTION	UNIT	QUANTITY
81028160	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3/4" DIA.	FOOT	100
81028710	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 3/4" DIA.	FOOT	200
81028720	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1" DIA.	FOOT	60
81028730	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.	FOOT	500
81400730	HANDHOLE, COMPOSITE CONCRETE 12" X 12"	EACH	7
81400735	HANDHOLE, COMPOSITE CONCRETE 11" X 18"	EACH	3
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	600
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	3300
84200804	REMOVAL OF POLE FOUNDATION	EACH	2
84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	2
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	800
• X0324390	FLOOD LIGHTING UNIT, WITH GFCI RECEPTACLE AND ENCLOSURE	EACH	6
• Z0004002	LIGHTED BOLLARD AND FOUNDATION, COMPLETE IN PLACE	EACH	4
• Z0033024	MAINTAIN EXISTING LIGHTING SYSTEM	L SUM	1
•	DRINKING FOUNTAIN, COMPLETE IN PLACE	L SUM	1

• SEE DETAILS IN PLANS

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CLIENT:


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 Lincolnshire, Illinois 60069

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:	Default
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TITLE:

**VILLAGE OF LINCOLNSHIRE
 DOWNTOWN POCKET PARK
 NOTES & BILL OF MATERIALS**

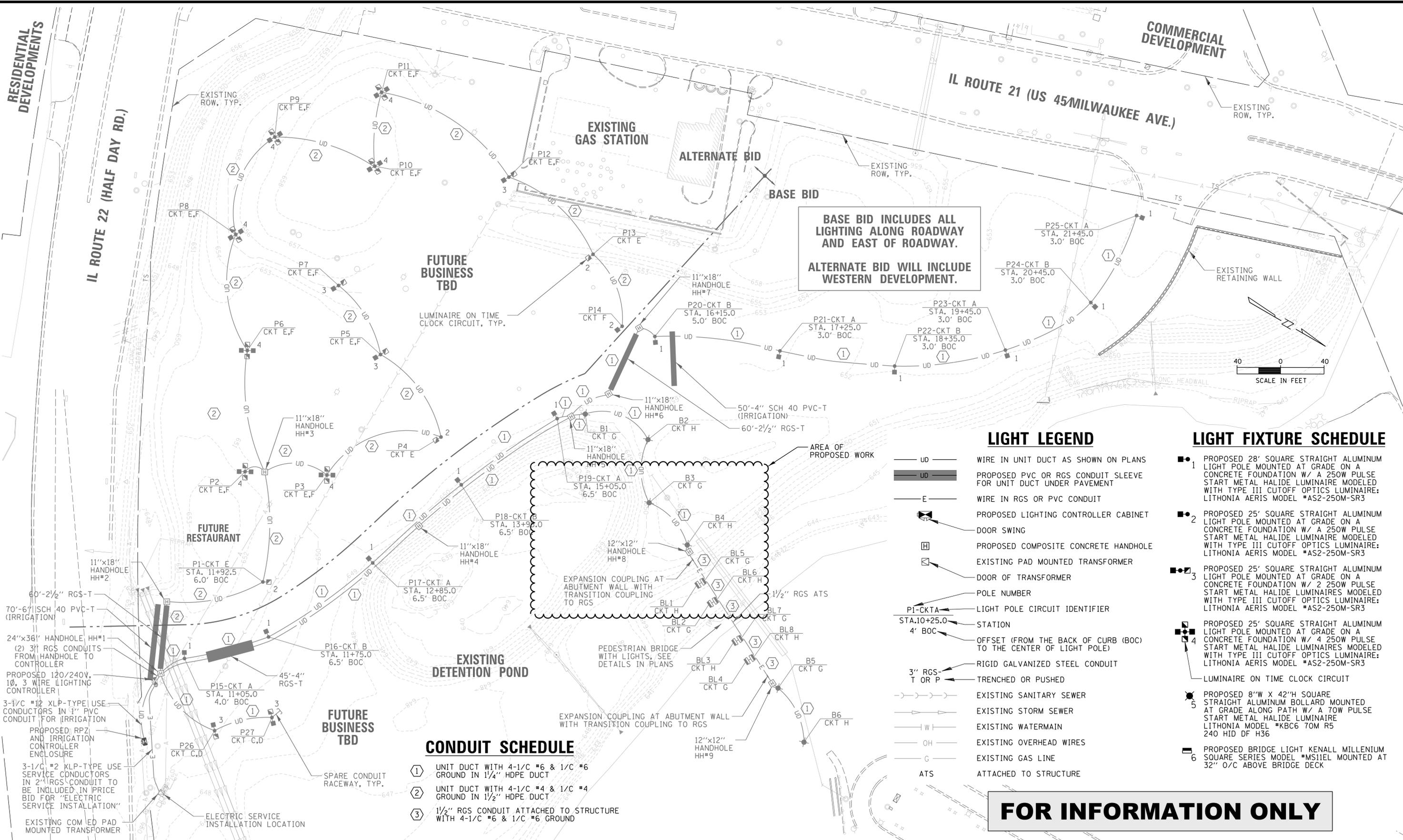
PROJ. NO. 13-0540

DATE: 3/25/2016

SHEET 5 OF 15

DRAWING NO.

M1



BASE BID INCLUDES ALL LIGHTING ALONG ROADWAY AND EAST OF ROADWAY.

ALTERNATE BID WILL INCLUDE WESTERN DEVELOPMENT.

LIGHT LEGEND

- UD WIRE IN UNIT DUCT AS SHOWN ON PLANS
- UD PROPOSED PVC OR RGS CONDUIT SLEEVE FOR UNIT DUCT UNDER PAVEMENT
- E WIRE IN RGS OR PVC CONDUIT
- PROPOSED LIGHTING CONTROLLER CABINET
- DOOR SWING
- PROPOSED COMPOSITE CONCRETE HANDHOLE
- EXISTING PAD MOUNTED TRANSFORMER
- DOOR OF TRANSFORMER
- POLE NUMBER
- P1-CKTA LIGHT POLE CIRCUIT IDENTIFIER
- STA.10+25.0 STATION
- 4' BOC OFFSET (FROM THE BACK OF CURB (BOC) TO THE CENTER OF LIGHT POLE)
- 3" RGS-T OR P RIGID GALVANIZED STEEL CONDUIT
- TRENCHED OR PUSHED
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING WATERMAIN
- EXISTING OVERHEAD WIRES
- EXISTING GAS LINE
- ATS ATTACHED TO STRUCTURE

LIGHT FIXTURE SCHEDULE

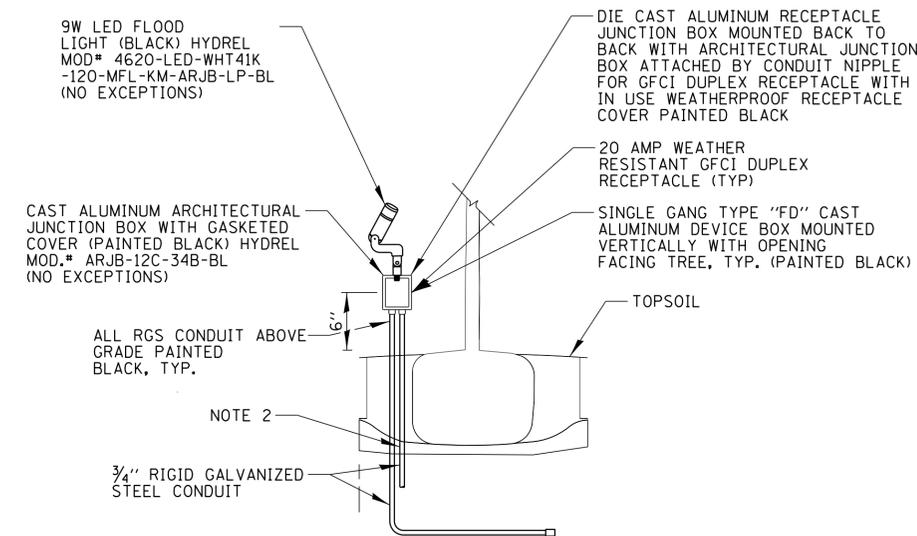
- 1 PROPOSED 28' SQUARE STRAIGHT ALUMINUM LIGHT POLE MOUNTED AT GRADE ON A CONCRETE FOUNDATION W/ A 250W PULSE START METAL HALIDE LUMINAIRE MODELED WITH TYPE III CUTOFF OPTICS LUMINAIRE: LITHONIA AERIS MODEL #AS2-250M-SR3
- 2 PROPOSED 25' SQUARE STRAIGHT ALUMINUM LIGHT POLE MOUNTED AT GRADE ON A CONCRETE FOUNDATION W/ A 250W PULSE START METAL HALIDE LUMINAIRE MODELED WITH TYPE III CUTOFF OPTICS LUMINAIRE: LITHONIA AERIS MODEL #AS2-250M-SR3
- 3 PROPOSED 25' SQUARE STRAIGHT ALUMINUM LIGHT POLE MOUNTED AT GRADE ON A CONCRETE FOUNDATION W/ 2 250W PULSE START METAL HALIDE LUMINAIRES MODELED WITH TYPE III CUTOFF OPTICS LUMINAIRE: LITHONIA AERIS MODEL #AS2-250M-SR3
- 4 PROPOSED 25' SQUARE STRAIGHT ALUMINUM LIGHT POLE MOUNTED AT GRADE ON A CONCRETE FOUNDATION W/ 4 250W PULSE START METAL HALIDE LUMINAIRE MODELED WITH TYPE III CUTOFF OPTICS LUMINAIRE: LITHONIA AERIS MODEL #AS2-250M-SR3
- 5 PROPOSED 8"W X 42"H SQUARE STRAIGHT ALUMINUM BOLLARD MOUNTED AT GRADE ALONG PATH W/ A 70W PULSE START METAL HALIDE LUMINAIRE LITHONIA MODEL #KBC6 70M R5 240 HID DF H36
- 6 PROPOSED BRIDGE LIGHT KENALL MILLENIUM SQUARE SERIES MODEL #MS1EL MOUNTED AT 32" O/C ABOVE BRIDGE DECK

CONDUIT SCHEDULE

- 1 UNIT DUCT WITH 4-1/C #6 & 1/C #6 GROUND IN 1/4" HDPE DUCT
- 2 UNIT DUCT WITH 4-1/C #4 & 1/C #4 GROUND IN 1/2" HDPE DUCT
- 3 1/2" RGS CONDUIT ATTACHED TO STRUCTURE WITH 4-1/C #6 & 1/C #6 GROUND

FOR INFORMATION ONLY

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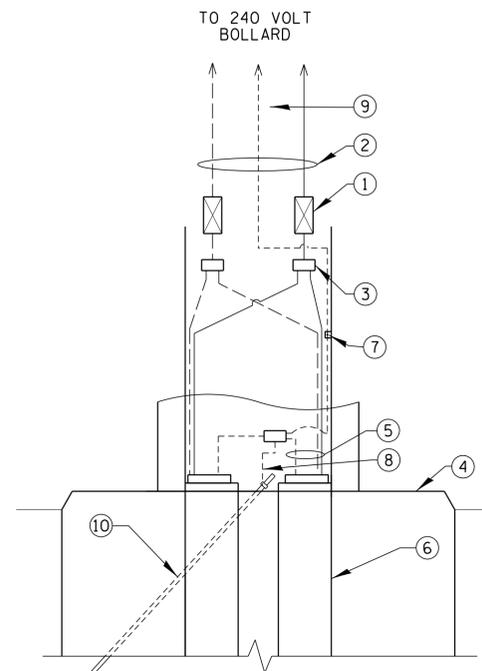


NOTES:

1. CONTRACTOR SHALL COORDINATE EXACT LOCATION, MOUNTING HEIGHT AND ORIENTATION OF ALL ITEMS WITH OWNER.
2. END OF RUN BOXES HAVE A VERTICAL 3/4" RGS CONDUIT EMBEDDED A MINIMUM OF 30" BELOW GRADE FOR STABILIZATION.
3. INSTALL RECEPTACLE 2'-0" FROM TREE.
4. "FLOOD LIGHTING UNIT" PAY ITEM SHALL INCLUDE LIGHT FIXTURE, JUNCTION BOX, RIGID GALVANIZED STEEL CONDUIT & TRANSITION COUPLING. HDPE CONDUIT & WIRING PAID FOR SEPARATELY.

TREE UPLIGHT DETAIL, IN LANDSCAPING

N.T.S.



BOLLARD WIRING DIAGRAM

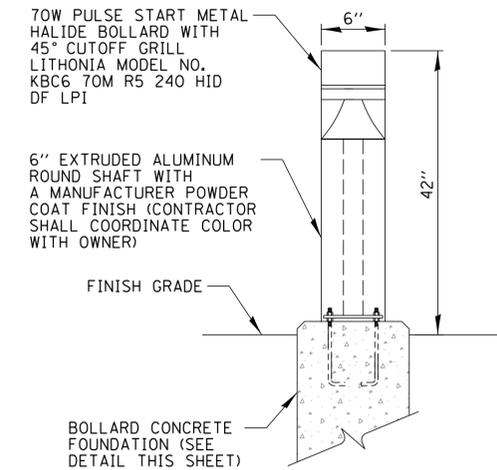
N.T.S.

——— PHASE CONDUCTOR
 - - - - - GROUND CONDUCTOR
 - - - - - NEUTRAL CONDUCTOR

1. CONNECTOR KIT METHOD WITH A 5A FUSE FOR LUMINAIRE. FUSES SHALL BE TIME-DELAY TYPE FUSES INSIDE A FUSE HOLDER AND INSULATING BOOTS (BUSSMAN HEB SERIES OR APPROVED EQUAL) (SEE NOTE BELOW)
2. NO. 10 AWG POLE WIRES TO LUMINAIRE HEAD (POLE GROUND WIRE SHALL BE CONNECTED TO GROUND WIRE/TERMINAL IN LUMINAIRE HEAD)
3. MULTIPLE COMPRESSION FITTINGS (SPLICE)
4. CONCRETE FOUNDATION
5. WIRE AS SHOWN ON PLANS
6. LIGHTING DUCT IN PVC RACEWAY
7. POLE GROUND LUG
8. #6 SOLID GROUND WIRE MECHANICALLY CLAMPED TO GROUND ROD
9. 5/8" DIA. GROUND ROD (LENGTH AS INDICATED IN CONCRETE FOUNDATION DETAIL)

NOTES:

1. MULTIPLE CONNECTOR KITS AND POLE WIRES AS REQUIRED. CONTRACTOR TO COORDINATE FOR DIFFERENT POLE TYPES

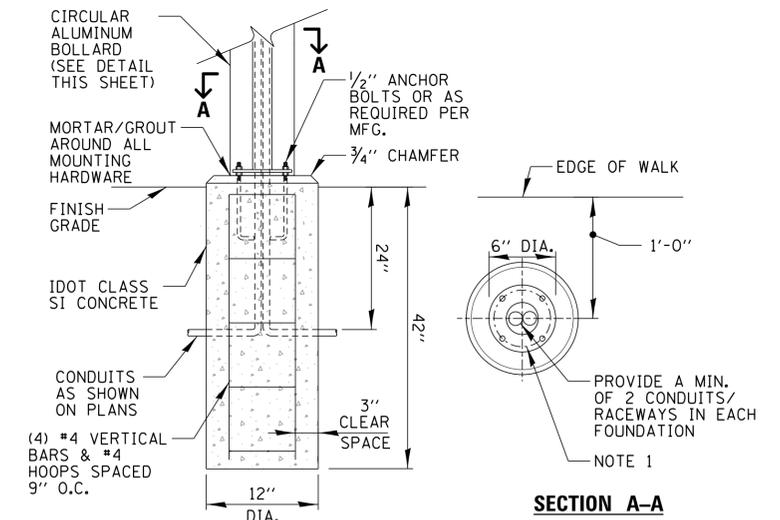


NOTES:

1. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL BOLLARDS WITH THE OWNER'S REPRESENTATIVE.

LIGHTED BOLLARD

N.T.S.



NOTES:

1. CONTRACTOR SHALL COORDINATE SIZE AND ORIENTATION OF BOLT CIRCLE, WITH BOLLARD MANUFACTURER.
2. CONCRETE FOUNDATION, ANCHOR BOLTS, SPARE RACEWAYS AND FASTENERS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "LIGHTED BOLLARD AND FOUNDATION, COMPLETE IN PLACE".

BOLLARD CONCRETE FOUNDATION DETAIL

N.T.S.

CLIENT:

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
				Default
FILE NAME	N:\Lincolnshire\130540\Mech\LDT_130540_01.sht			

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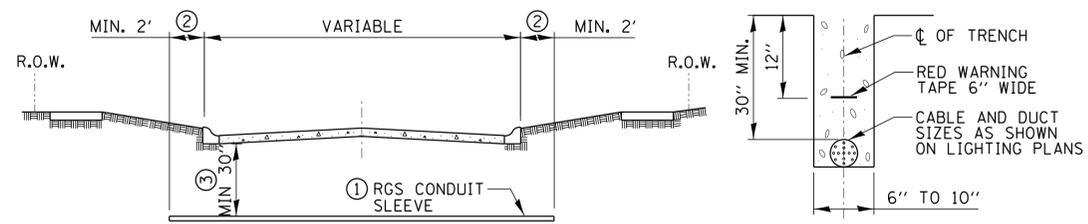
PROJ. NO. 13-0540

DATE: 3/25/2016

SHEET 8 OF 15

DRAWING NO.

M4



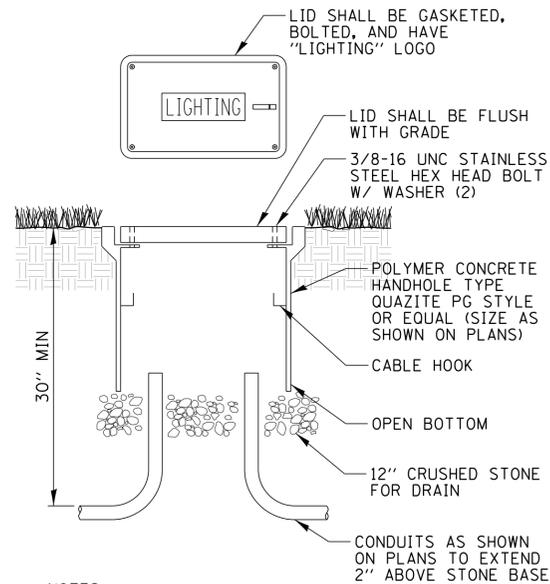
ROADWAY CROSSING

- ① SLEEVE SHALL BE HEAVY WALL RIGID GALVANIZED STEEL (RGS) CONDUIT.
- ② SLEEVE SHALL EXTEND A MINIMUM OF 2 FT. BEYOND BACK OF CURB.
- ③ SLEEVE SHALL BE A MINIMUM OF 30" BELOW ROADWAY OR CURB BOTTOM.

TRENCH CROSS SECTION

ELECTRIC CONDUIT INSTALLATION

N.T.S.

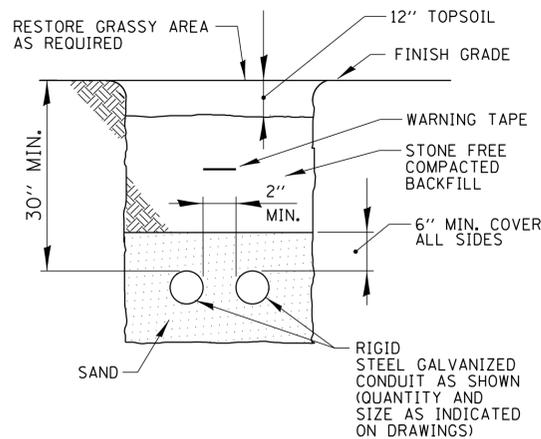


NOTES:

- 1. ALL SPLICES SHALL BE WATERPROOF.
- 2. POLYMER CONCRETE HANDHOLE AND LID SHALL BE GREEN IN LANDSCAPED AREAS AND MATCH COLOR IN CONCRETE/BRICK AREAS.
- 3. BOX & LID SHALL MEET/EXCEED ANSI TIER 15 LOADING REQUIREMENTS AND BE UL LISTED.
- 4. CONTRACTOR TO COORDINATE SIZES AND COLORS OF BOXES ACCORDINGLY.

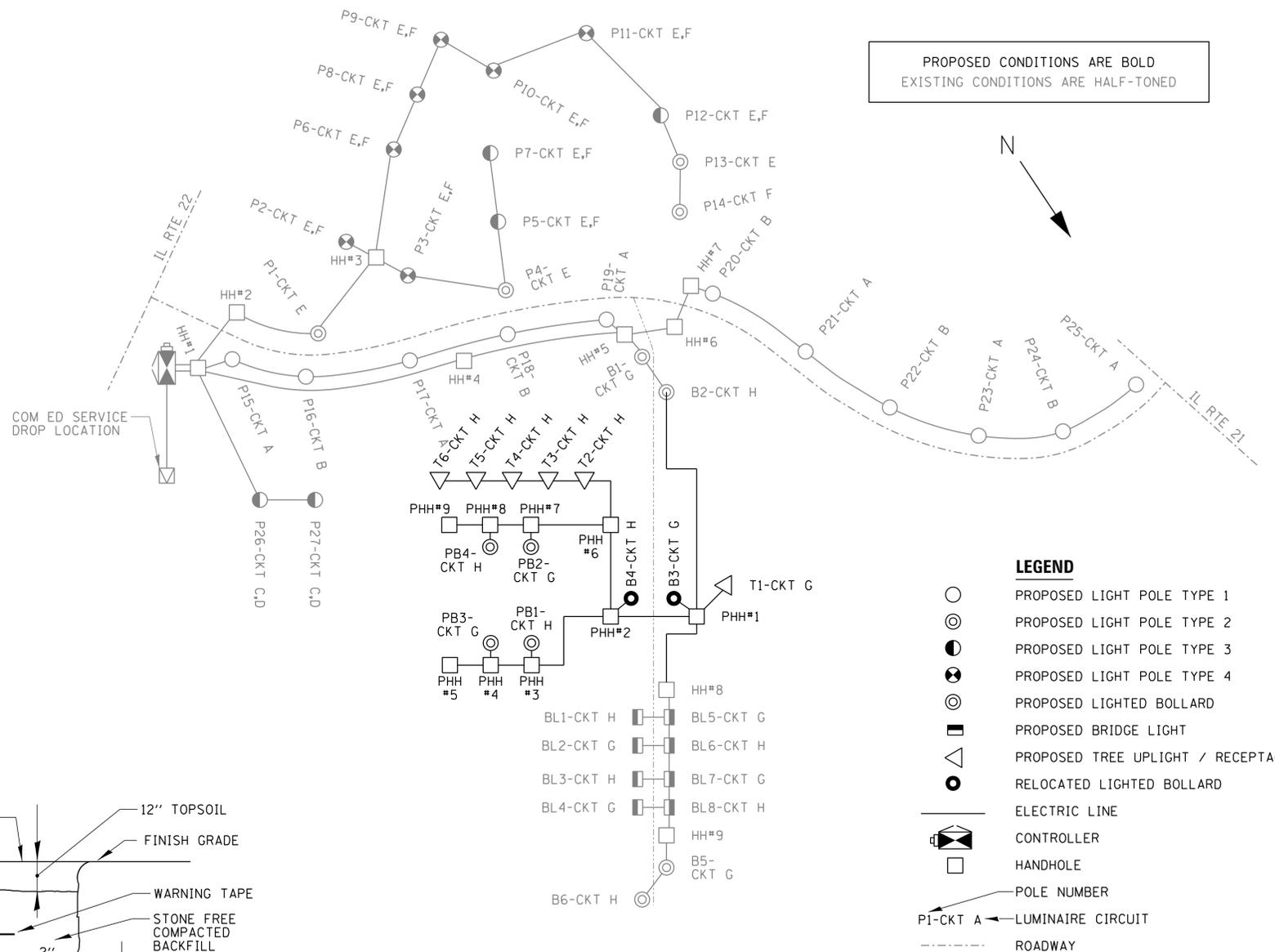
POLYMER CONCRETE HANDHOLE

N.T.S.

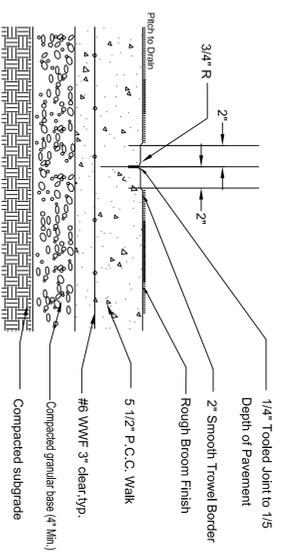


DIRECT BURIED CONDUIT DETAIL

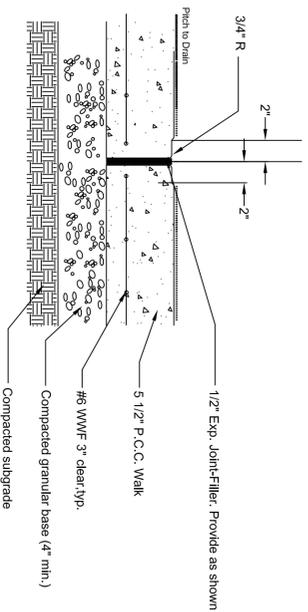
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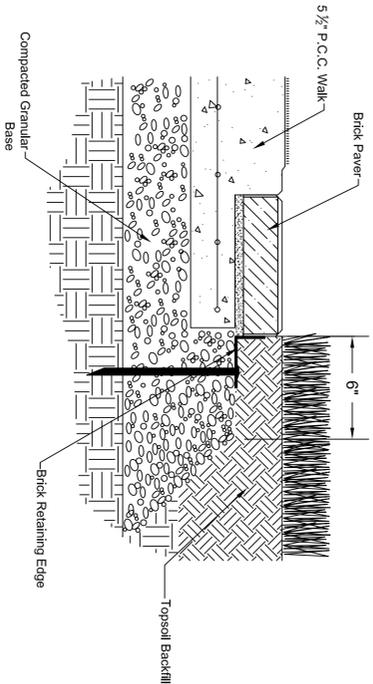
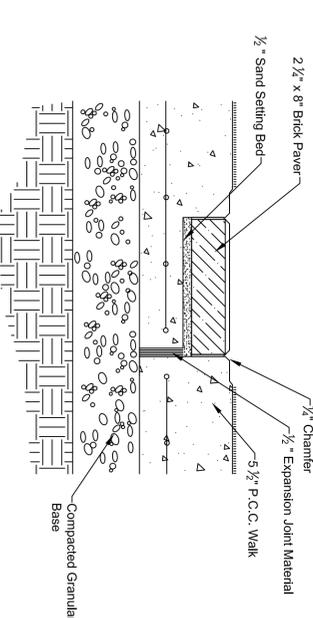
NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
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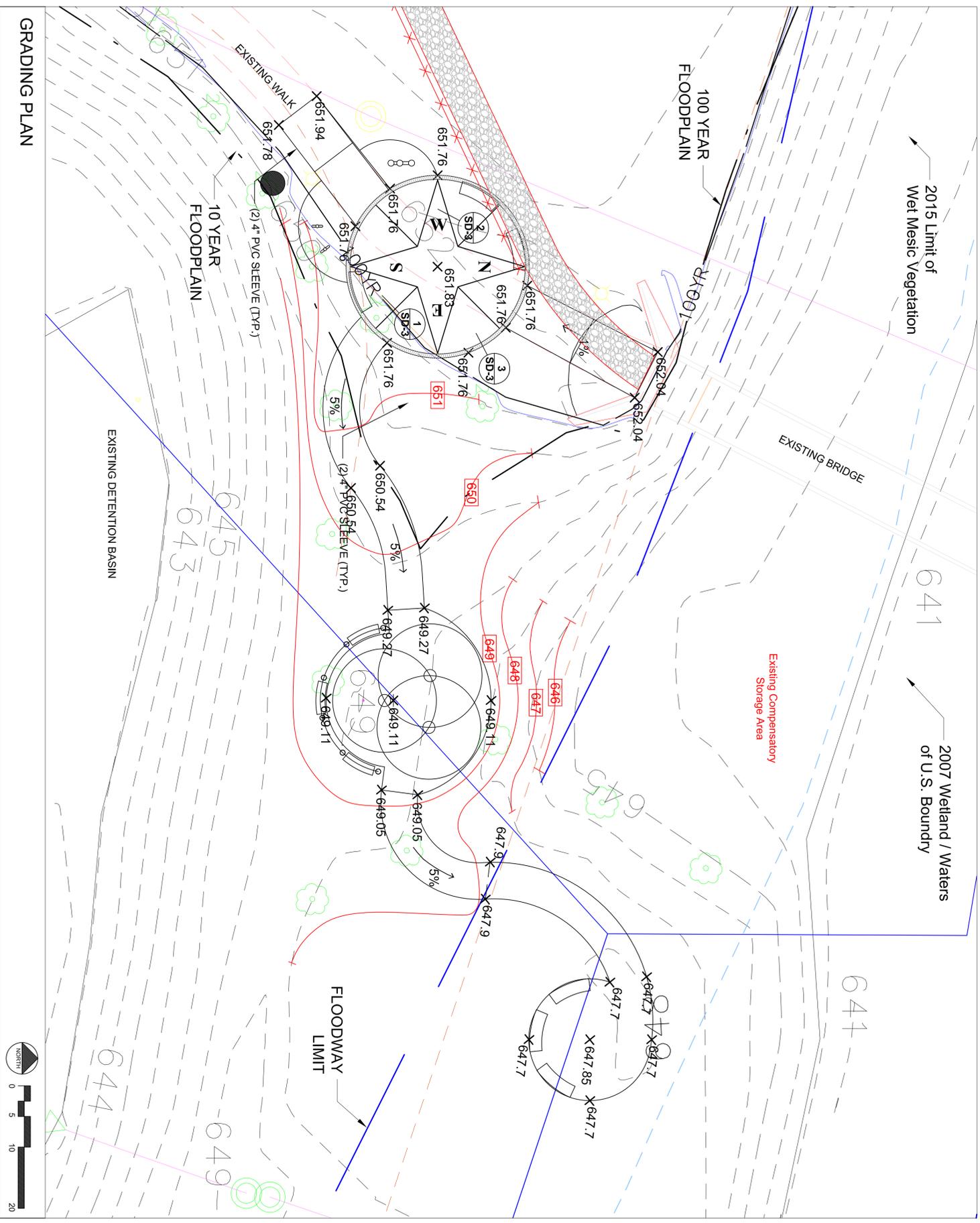
1 TYP. SIDEWALK CONTROL JOINT



2 TYPICAL SIDEWALK EXPANSION JOINT

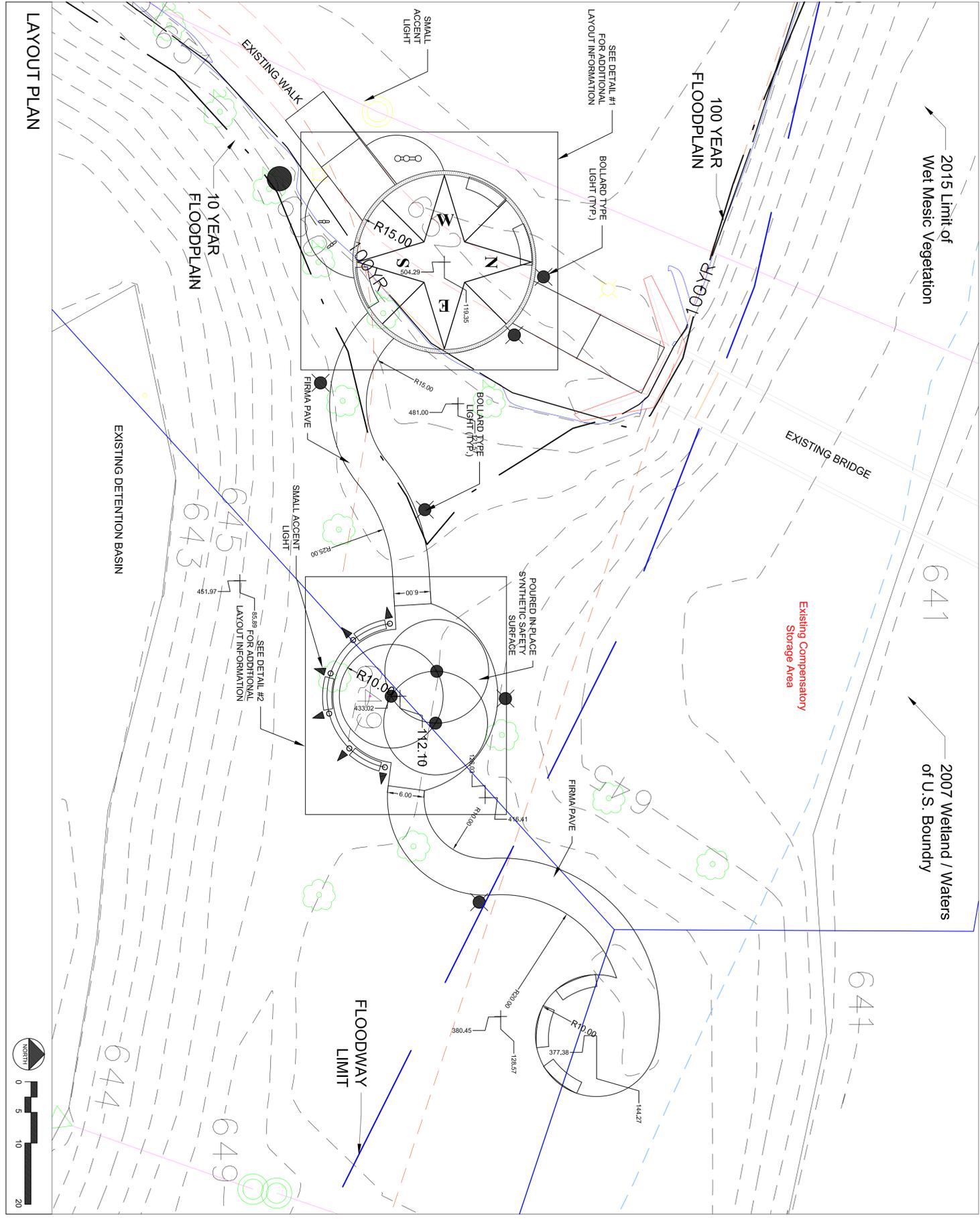
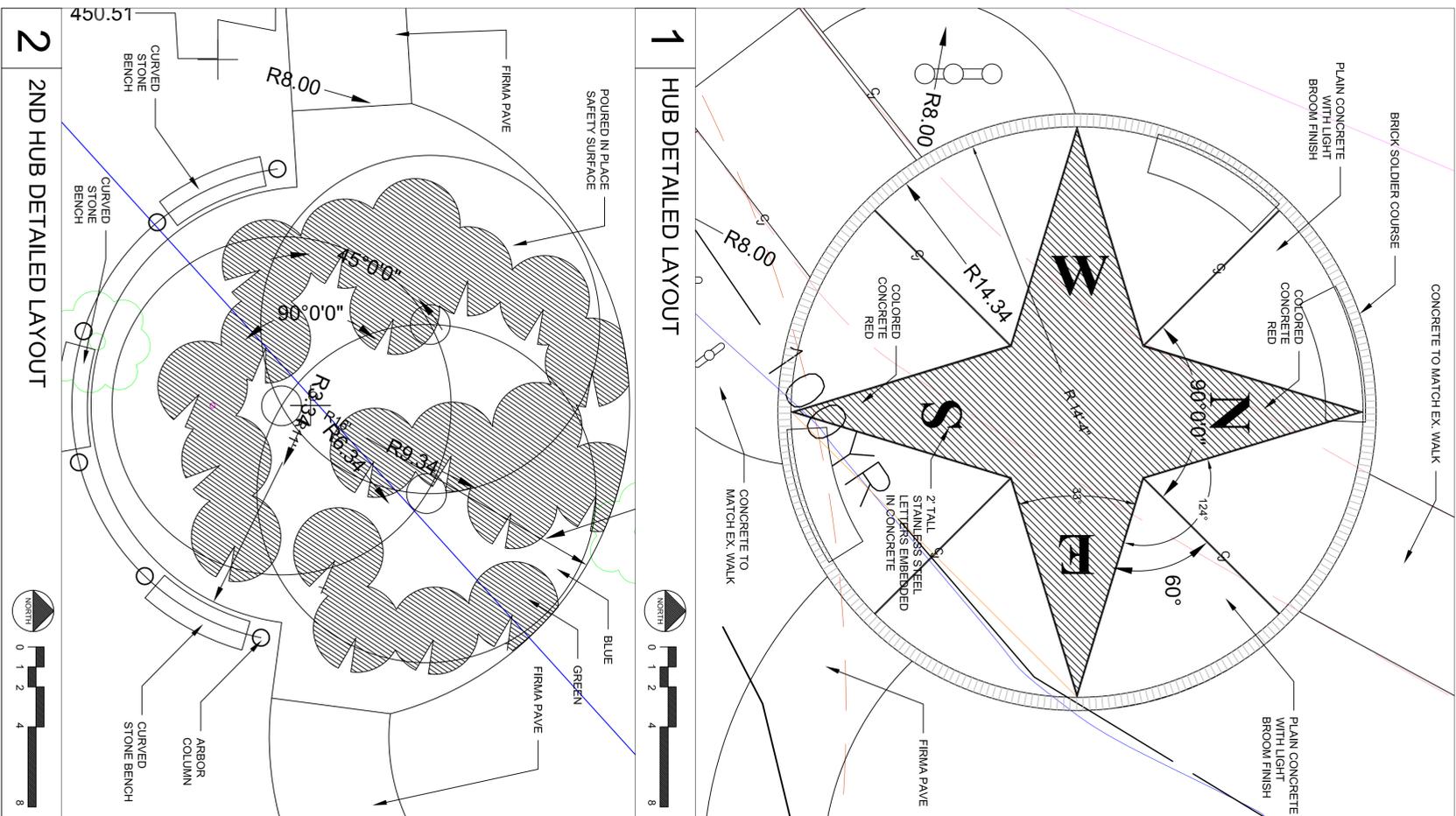


3 TYPICAL BRICK EDGE



GRADING PLAN

NO.	DATE	DESCRIPTION	BY	CHKD.
1	6-26-15	LAKE COUNTY SMC	US	---
2	---	---	DUG	---
3	---	---	JGS	---
4	---	---	SCALE: 1" = 20'	---
5	---	---	PLOT DATE: ---	---
6	---	---	CAD USER: ---	---
7	---	---	MODEL: ---	---



NOTE: CONCRETE COLOR PALETTE APPROVED BY OWNER / VOL PRIOR TO 5 BUSINESS DAYS TO INSTALL OR SAMPLE
 (4' X 4' SQUARE) PROVIDED ON SITE.
 BRICK TO MATCH TFM BUILDING.
 LETTERS TO BE STAINLESS STEEL, 15 GAUGE WITH A MIN. OF 4 STUDS WELDED TO BACK OF EACH LETTER.
 LETTERS TO BE TIMES NEW ROMAN, BOLD.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
 9575 W. Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

CLIENT:
Village of Pincolnshire
 One Old Hart Day Road
 Lincolnshire Illinois 60069

1	6-26-15	LAKE COUNTY SMC	DSGN.	US	TITLE:
			DWN.	DUG	
			CHKD.	JGS	
			SCALE:	1" = 20'	
			PLOT DATE:		
			CAD USER:		
			CHKD. MODEL:		
			NATURE OF REVISION		
			FILE NAME	N:\Lincolnshire\20294\Civil\Ref	

PROJ. NO. 130540
DATE: 3-25-16
SHEET 14 OF 15
DRAWING NO. SD-2

LAYOUT PLAN

