

VILLAGE OF VERNON HILLS

ORDINANCE NO. 2009-011

AN ORDINANCE GRANTING FINAL SITE AND LANDSCAPING PLAN
APPROVALS FOR THE PROPOSED BUILDING ADDITION TO ZF INDUSTRIES
LOCATED AT 777 HICKORY HILL DRIVE, IN THE VILLAGE OF VERNON
HILLS, LAKE COUNTY.

THE 18TH DAY OF MARCH 2009

Published in pamphlet form by the
Authority of the President and Board
Of Trustees of the Village of Vernon
Hills, Lake County, Illinois, this 19th
Day of March 2009

ORDINANCE NO. 2009 – 011

**AN ORDINANCE GRANTING FINAL SITE
AND LANDSCAPING PLAN APPROVALS
FOR THE PROPOSED BUILDING ADDITION
TO ZF INDUSTRIES LOCATED AT 777
HICKORY HILL DRIVE, IN THE VILLAGE
OF VERNON HILLS, LAKE COUNTY.**

WHEREAS, Van Vlissingen & Company, in regard to properties legally described in Exhibit A, has petitioned the Village of Vernon Hills, pursuant to The Corporate Woods Annexation Agreement dated July 15, 1986, to amend the approved final site and landscaping plans and building elevations for the ZF Industries Building to allow the proposed building addition.

WHEREAS, Van Vlissingen & Company is the owner of the 777 Hickory Hill Drive property and building which is occupied by ZF Industries.

WHEREAS, the existing office/warehouse building is approximately 169,590 sq ft and was originally approved on April 21, 1992

WHEREAS, Van Vlissingen is proposing to construct a 128,216 sq foot addition onto the west side of the existing building and add the required parking to meet current and future parking needs for the facility.

NOW, THEREFORE, BE IT ORDAINED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF VERNON HILLS, COUNTY OF LAKE AND STATE OF ILLINOIS:

SECTION I. Pursuant to The Corporate Woods Annexation Agreement dated July 15, 1986 and the Vernon Hills Zoning Ordinance of 1982, as amended, the amended final site and landscaping plans and building elevation for the proposed addition to an existing building located at 777 Hickory Hill Drive is hereby approved as presented in the following plans:

- Technical Review Set and Comments dated February 20, 2009 as prepared by Gillespie Design Group consisting of the Title Page and pages A000, A001, PHOTO page, pages A100-101 and A200-202.
- Proposed Site Improvement Plans as prepared Greengard, Inc. consisting of pages 1 thru 8 with a revision date of 2/20/09.
- Landscape Plan as prepared by ILT Vignocchi consisting of Page L100 with a date of 2/20/09.

Said final plans and color elevations are attached as Exhibits B and may be amended subject to the following conditions:

1. Final approvals by the Village Engineer and Landscape Architect.
2. Compliance with the responses to the Technical Review Comments #1 with a stamped received date of February 26, 2009.
3. Installation of an emergency driveway connection to the former Kelly's Day Care property located directly south of the addition and at a point as directed by the Village Engineer. The driveway connection will include a gate and Knox Box as may be required by the Lincolnshire Riverwoods Fire Protection District. The connection and gate will be installed prior to issuance of a final certificate of occupancy.
4. Compliance with all ordinances and standards of the Village.

SECTION II. SEVERABILITY. In the event that any section, clause, provision, or part of this ordinance shall be found and determined to be invalid by a court of competent jurisdiction, all valid parts that are severable from the invalid parts shall remain in full force and effect. If any part of this ordinance is found to be invalid in any one or more of its several applications, all valid applications that are severable from the invalid applications shall remain in effect.

SECTION III. REPEAL AND SAVINGS CLAUSE. All ordinances or parts of ordinances in conflict herewith are hereby repealed; provided, however, that nothing herein contained shall affect any rights, actions or causes of action which shall have accrued to the Village of Vernon Hills prior to the effective date of this ordinance.

SECTION IV. EFFECTIVE DATE. This ordinance shall be in full force and effect from and after its passage, approval and publication as provided by law.

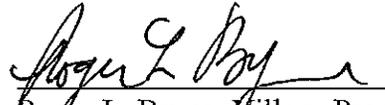
SECTION V. ORDINANCE NUMBER. This ordinance shall be known as Ordinance Number 2009-011.

Adopted by roll call vote as follows:

AYES: 6-Marquardt, Schultz, Schwartz, Williams, Hebda, Koch

NAYS: 0-None

ABSENT AND NOT VOTING: 0-None



Roger L. Byrne, Village President

PASSED: 3/18/2009

APPROVED: 3/18/2009

PUBLISHED IN PAMPHLET FORM: 3/19/2009

ATTEST:


Linda Pelletier, Village Clerk

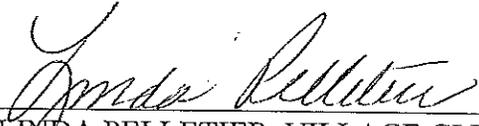
EXHIBIT A
Legal Description

EXHIBIT B
Plans and Color Elevations

AFFIDAVIT OF SERVICE

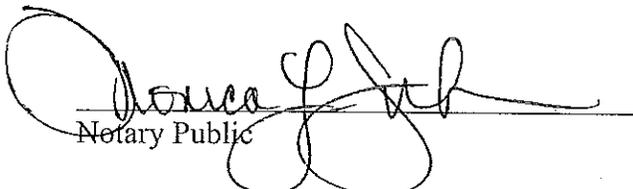
STATE OF ILLINOIS)
)
COUNTY OF LAKE)

I, LINDA PELLETIER, BEING FIRST DULY APPOINTED, DEPOSES AND SAYS ON OATH THAT AS VILLAGE CLERK OF THE VILLAGE OF VERNON HILLS, SHE DID CAUSE THE FOREGOING CERTIFICATE FOR ORDINANCE 2009-011, AN ORDINANCE GRANTING FINAL SITE AND LANDSCAPING PLAN APPROVALS FOR THE PROPOSED BUILDING ADDITION TO ZF INDUSTRIES LOCATED AT 777 HICKORY HILL DRIVE, IN THE VILLAGE OF VERNON HILLS, LAKE COUNTY.

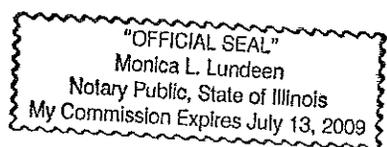


LINDA PELLETIER, VILLAGE CLERK

SUBSCRIBED AND SWORN to Before
Me this 1 day of April, 2009



Notary Public



OWNER
 VAN VLISINGEN & CO.
 ONE OVERLOOK POINT, SUITE 100
 LINCOLNSHIRE, ILLINOIS 60069
 (847) 634-2300

TENANT
 ZF INDUSTRIES INC.
 777 HICKORY HILL DRIVE
 VERNON HILLS, ILLINOIS 60061
 (847) 478-6745

GENERAL CONTRACTOR
 ZICCARELLI BUILDERS, INC./ BUILD CORPS INC.
 1236 AMERICAN WAY
 LIBERTYVILLE, ILLINOIS 60048
 (847) 362-8700

ARCHITECT
 GILLESPIE DESIGN GROUP
 5307 BUSINESS PARKWAY, #101
 RINGWOOD, ILLINOIS 60072
 (815) 653-7100

CIVIL ENGINEER
 GREENGARD, INC.
 111 BARCLAY BOULEVARD
 LINCOLNSHIRE, ILLINOIS 60069
 (847) 634-3883

STRUCTURAL ENGINEER
 GREETIS ASSOCIATES
 134 W. SLADE STREET, SUITE 2
 PALATINE, ILLINOIS 60067
 (847) 991-4204

LANDSCAPE ARCHITECT
 ILT VIGNOCCHI, INC.
 25865 W. IVANHOE ROAD
 WAUCONDA, ILLINOIS 60084-2366
 (847) 487-5200

MECHANICAL DESIGNER
 EHMS INC.
 1368 BUSCH PARKWAY
 BUFFALO GROVE, ILLINOIS 60089
 (847) 279-3930

ELECTRICAL DESIGNER
 HOMESTEAD ELECTRIC COMPANY
 27839 W. CONCRETE DRIVE, SUITE A
 INGLESIDE, ILLINOIS 60041
 (815) 363-1222

FIRE SUPPRESSION ENGINEER
 UNITED STATES FIRE PROTECTION, INC.
 28427 N. BALLARD AVENUE, UNIT H
 LAKE FOREST, ILLINOIS 60045
 (847) 247-4755

ZF INDUSTRIES, INC.

777 HICKORY HILL DRIVE
 CORPORATE WOODS
 VERNON HILLS, ILLINOIS

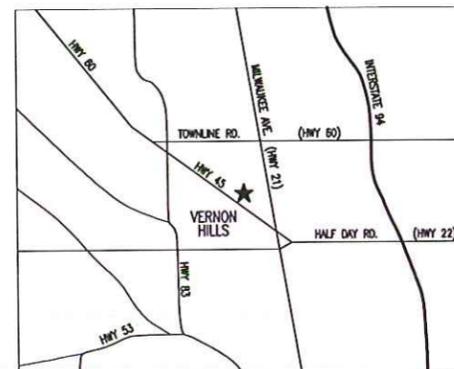
TECHNICAL REVIEW SET JANUARY 28, 2009 TECHNICAL REVIEW COMMENTS FEBRUARY 20, 2009

ORDINANCE 2009-011 EXHIBIT B(1) Technical Review Set and Comments dated February 20, 2009 as prepared by Gillespie Design Group consisting of the Title Page and pages A000, A001, PHOTO page, pages A100-101 and A200-202.

GILLESPIE DESIGN GROUP
 5307 Business Parkway, 101
 Ringwood, Illinois 60072
 815.653.7100 phone
 815.653.7700 fax
 www.gillespiedesigngroup.com

project number
 08-064

ZF INDUSTRIES INC.
 777 HICKORY HILL DRIVE
 Vernon Hills, Illinois
 VAN VLISINGEN & CO.



VICINITY MAP
 NOT TO SCALE



LOCATION MAP
 NOT TO SCALE

DRAWING INDEX

TITLE TITLE DRAWING

ARCHITECTURAL

A000	SITE PLAN
PHOTO	PHOTOMETRIC PLAN
A100	COMPOSITE FLOOR PLAN
A101	FLOOR PLAN - ADDITION
A200	EXTERIOR ELEVATIONS
A201	PRECAST PANEL ELEVATIONS
A202	PRECAST PANEL ELEVATIONS

CIVIL ENGINEERING

1	TITLE SHEET
2	EXISTING CONDITIONS
3	AERIAL PHOTOGRAPH
4	SITE DIMENSION PLAN
5	UTILITY PLAN
6	GRADING & EROSION CONTROL PLAN
7	SPECIFICATIONS
8	DETAILS

LANDSCAPE

L100	LANDSCAPE DESIGN
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FIRE SUPPRESSION

FP - 1	PARTIAL SPRINKLER PLAN AND DETAILS
FP - 2	PARTIAL SPRINKLER PLAN AND DETAILS

description	date
TECHNICAL REVIEW	01/28/09
TECHNICAL REVIEW COMMENTS	02/20/09

TITLE DRAWING
 TECHNICAL REVIEW SET

RECEIVED
 FEB 26 2009
 COMMUNITY DEVELOPMENT
 DEPARTMENT

TITLE

ZONING CODE REVIEW:

VERNON HILLS ZONING ORDINANCE
PROTECTIVE COVENANTS FOR THE CORPORATE WOODS (EXHIBITS C AND F)

TOPIC:	DISCUSSION:	CODE REFERENCE:
ZONING DISTRICT	L-1, LIMITED INDUSTRIAL	EXHIBIT C/A
BUILDING SETBACKS	FRONT YARD 50'-0" * SIDE YARD 25'-0" * REAR YARD 25'-0" * * EACH YARD IS TO INCREASE 1'-0" FOR EACH 1'-0" THE BUILDING HEIGHT EXCEEDS 30'-0"	EXHIBIT F, SECTION G
BUILDING HEIGHT	THE MAXIMUM HEIGHT FOR AN INDUSTRIAL USE IS 45'-0"	EXHIBIT F, SECTION G.5
FLOOR AREA RATIO	THE MAXIMUM FLOOR AREA RATIO IS 0.50	EXHIBIT F, SECTION G.6
PARKING SETBACKS	PARKING IS NOT ALLOWED IN THE REQUIRED FRONT YARD. PARKING IS ALLOWED TO WITHIN 8'-0" OF THE SIDE OR REAR YARDS, BUT REQUIRES A 2'-0" OVERHANG. THEREFORE, A 10'-0" DISTANCE IS REQUIRED FROM THE SIDE AND REAR YARDS.	EXHIBIT F, SECTION G.4.b EXHIBIT F, SECTION J.7.a
PARKING REQUIREMENTS	INDUSTRIAL USES 2.0 STALLS/3 EMPLOYEES BUSINESS/OFFICE USE 1.0 STALL/300 SF	EXHIBIT F, SECTION J.6
PARKING ISLANDS	LANDSCAPE ISLAND OF 100 SF IS REQUIRED FOR EVERY 15 PARKING STALLS	EXHIBIT F, SECTION J.7.i
LOADING SPACE	1 LOADING SPACE REQUIRED FOR THE FIRST 40,000 SF AND 1 MORE FOR EACH ADDITIONAL 80,000 SF	EXHIBIT F, SECTION J.8.a

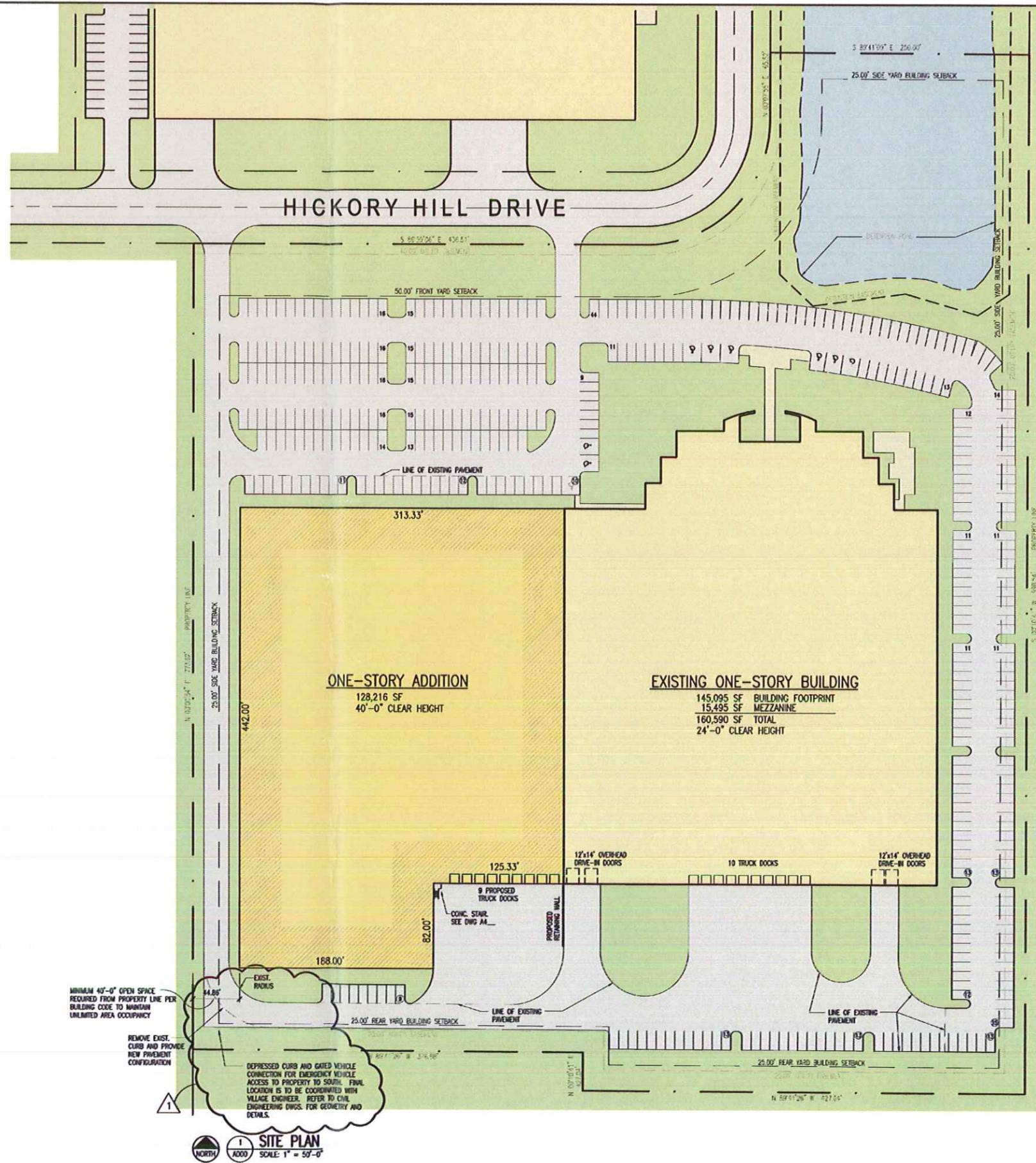
BUILDING CODE REVIEW:

2006 INTERNATIONAL BUILDING CODE

TOPIC:	DISCUSSION:	CODE REFERENCE:
USE GROUP	F-1, MODERATE HAZARD FACTORY INDUSTRIAL	308.2
CONSTRUCTION TYPE	TYPE IIB, NON-COMBUSTIBLE, UNPROTECTED	TABLE 503
UNLIMITED AREA	THE BUILDING MAY BE CLASSIFIED AS UNLIMITED AREA CONSTRUCTION PER THE FOLLOWING REQUIREMENTS: 1. BUILDING IS ONE-STORY, GROUP F. 2. BUILDING IS PROVIDED WITH AN AUTOMATIC SPRINKLER SYSTEM IN COMPLIANCE WITH REQUIREMENTS OF NFPA 13. 3. BUILDING IS SURROUNDED AND ADJOINED BY PUBLIC WAYS OR YARDS NOT LESS THAN 60'-0" IN WIDTH.	507.3
REDUCED OPEN SPACE	THE 60'-0" OPEN SPACE REQUIREMENT MAY BE REDUCED TO 40'-0" PER THE FOLLOWING REQUIREMENTS: 1. THE REDUCED OPEN SPACE DOES NOT EXCEED 75% OF THE PERIMETER OF THE BUILDING. 2. THE EXTERIOR WALL FACING THE REDUCED OPEN SPACE SHALL HAVE A MINIMUM FIRE RESISTANCE RATING OF 3 HOURS. 3. THE OPENINGS IN THE EXTERIOR WALL FACING THE REDUCED OPEN SPACE SHALL HAVE OPENING PROTECTIVES WITH A FIRE RESISTANCE RATING OF 3 HOURS.	507.5
BUILDING ELEMENTS	THE REQUIRED FIRE RESISTANCE RATINGS OF THE BUILDING ELEMENTS ARE AS FOLLOWS: STRUCTURAL FRAME 0 HOURS EXTERIOR BEARING WALLS 0 HOURS * INTERIOR BEARING WALLS 0 HOURS ROOF CONSTRUCTION 0 HOURS * EXCEPT WHERE REQUIRED BY REDUCED OPEN SPACE	TABLE 601
FIRE SEPARATION DISTANCE	THE REQUIRED FIRE RESISTANCE RATINGS OF THE EXTERIOR WALLS BASED ON A FIRE SEPARATION DISTANCE GREATER THAN 30'-0" FOR USE GROUP F-1 IS 0 HOURS.*	TABLE 602

SITE/BUILDING DATA:

SITE AREA	689,382 SF (15.83 ACRES)
BUILDING AREA	EXISTING BUILDING 160,590 SF PROPOSED ADDITION 128,216 SF TOTAL 288,806 SF
FLOOR AREA RATIO	.419
PARKING REQUIRED	INDUSTRIAL AREA (2 STALLS/3 EMPLOYEES) 400 EMPLOYEES ASSUMED = 267 OFFICE AREA (1 STALL/300 SF) 30,890 SF/300 SF = 104 PARKING REQUIRED 371 STALLS
PARKING PROVIDED	433 STALLS EXISTING 298 STALLS (INCLUDING 8 HC) PROPOSED 134 STALLS (INCLUDING 1 HC) PARKING PROVIDED 433 STALLS (INCLUDING 9 HC) (PROPOSED PARKING NUMBERS ARE INDICATED WITH CIRCLE (3))
TRUCK DOCKS	19 (INCLUDING 10 EXISTING)
DRIVE-IN DOORS	4 EXISTING



SITE PLAN
SCALE: 1" = 50'-0"

GILLESPIE DESIGN GROUP
5307 Business Parkway, 101
Ringwood, Illinois 60072
815.653.7100 phone
815.653.7700 fax
www.gillespiedesigngroup.com

project number
08-064

ZF INDUSTRIES INC.
777 HICKORY HILL DRIVE
Vernon Hills, Illinois
VAN VLISINGEN & CO.

date	description
01/28/09	TECHNICAL REVIEW
02/20/09	TECHNICAL REVIEW COMMENTS

SITE PLAN
TECHNICAL REVIEW SET

A000

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LOADING SPACE	1 LOADING SPACE REQUIRED FOR THE FIRST 40,000 SF AND 1 MORE FOR EACH ADDITIONAL 60,000 SF	EXHIBIT F, SECTION J.9.e

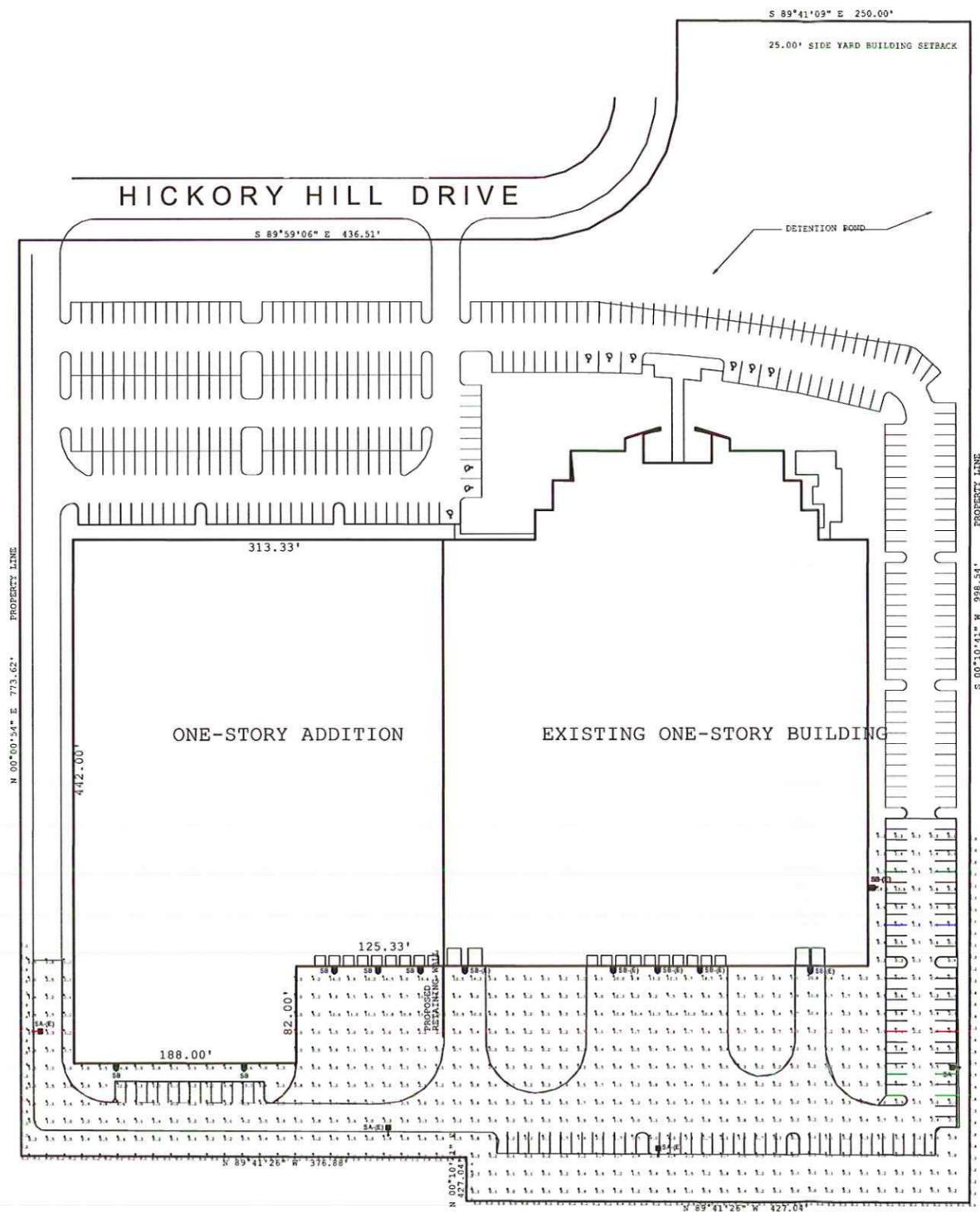
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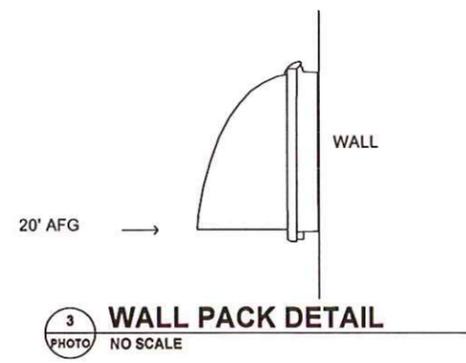
BUILDING CODE REVIEW:
2006 INTERNATIONAL BUILDING CODE

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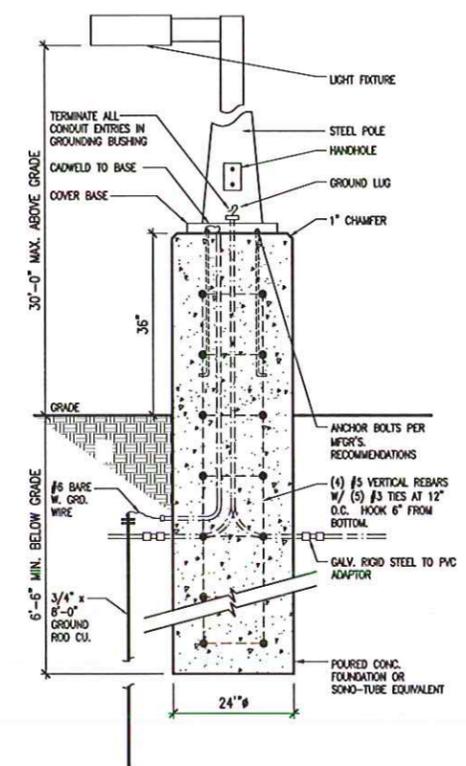
date	description
01/28/09	TECHNICAL REVIEW
02/20/09	TECHNICAL REVIEW COMMENTS



1 PHOTOMETRIC PLAN
 NO SCALE



3 WALL PACK DETAIL
 NO SCALE



2 LIGHT POLE DETAIL
 NO SCALE

Paved Area
 Illuminance Values (Fc)
 Average =2.60
 Maximum =23.3
 Minimum =0.1
 Avg/Min Ratio=26.00
 Max/Min Ratio=233.00

NEW FIXTURE,
 POLE AND BASE
 ADDITIONAL EQUIPMENT:
 (1) #8@30" 30 x 4 x .125 SQUARE STEEL POLE
 POLE AND FIXTURE MEETS 100 MPH SUSTAINED WINDS

Calculation Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
Site Calculation	2.24	23.3	0.0	N.A.	N.A.
Property Line	2.44	1.8	0.0	N.A.	N.A.
Paved Area	2.80	23.3	0.1	24.00	233.00

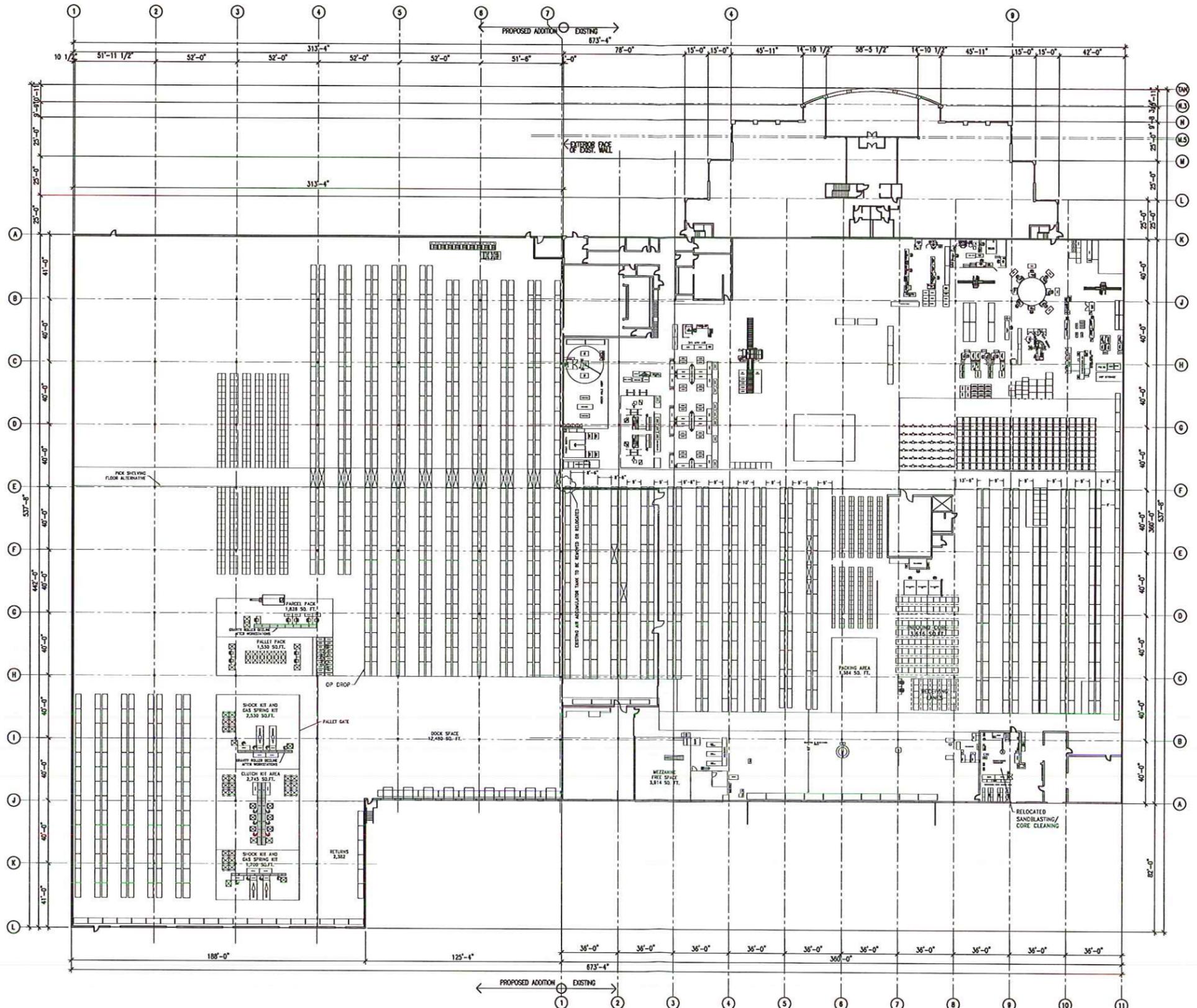
Luminaire Schedule	Symbol	Qty	Label	Arrangement	Lumens	LLF	Description
AVV	SA	1	AVV	SINGLE	\$1000	0.800	AVV25542M 400W HPS
EXISTING (AVV)	SA-(E)	3	EXISTING (AVV)	SINGLE	\$1000	0.800	EX-25542M 400W HPS
GW	SB	5	GW	SINGLE	\$1000	0.800	GW10545M 400W HPS
EXISTING (GW)	SB-(E)	8	EXISTING (GW)	SINGLE	\$1000	0.800	EX-10545M 400W HPS

RUUD LIGHTING
 800 238 7000 USA www.ruudlighting.com 905 671 1961 CAN
 Date: 01/20/09 Scale: 1/8"=1'-0" Engineer: JIM BLAIR
 Project Name: 27153 ZF INDUSTRIES
 Filename: 0108E-URB02AGD
 MEAN FOOTCANDLE(S) SHOWN AT GRADE

date	description
01/20/09	TECHNICAL REVIEW
02/20/09	TECHNICAL REVIEW COMMENTS

PHOTOMETRIC PLAN
 TECHNICAL REVIEW SET

PHOTO




1 **COMPOSITE FIRST FLOOR PLAN**
A100 1/32" = 1'-0"

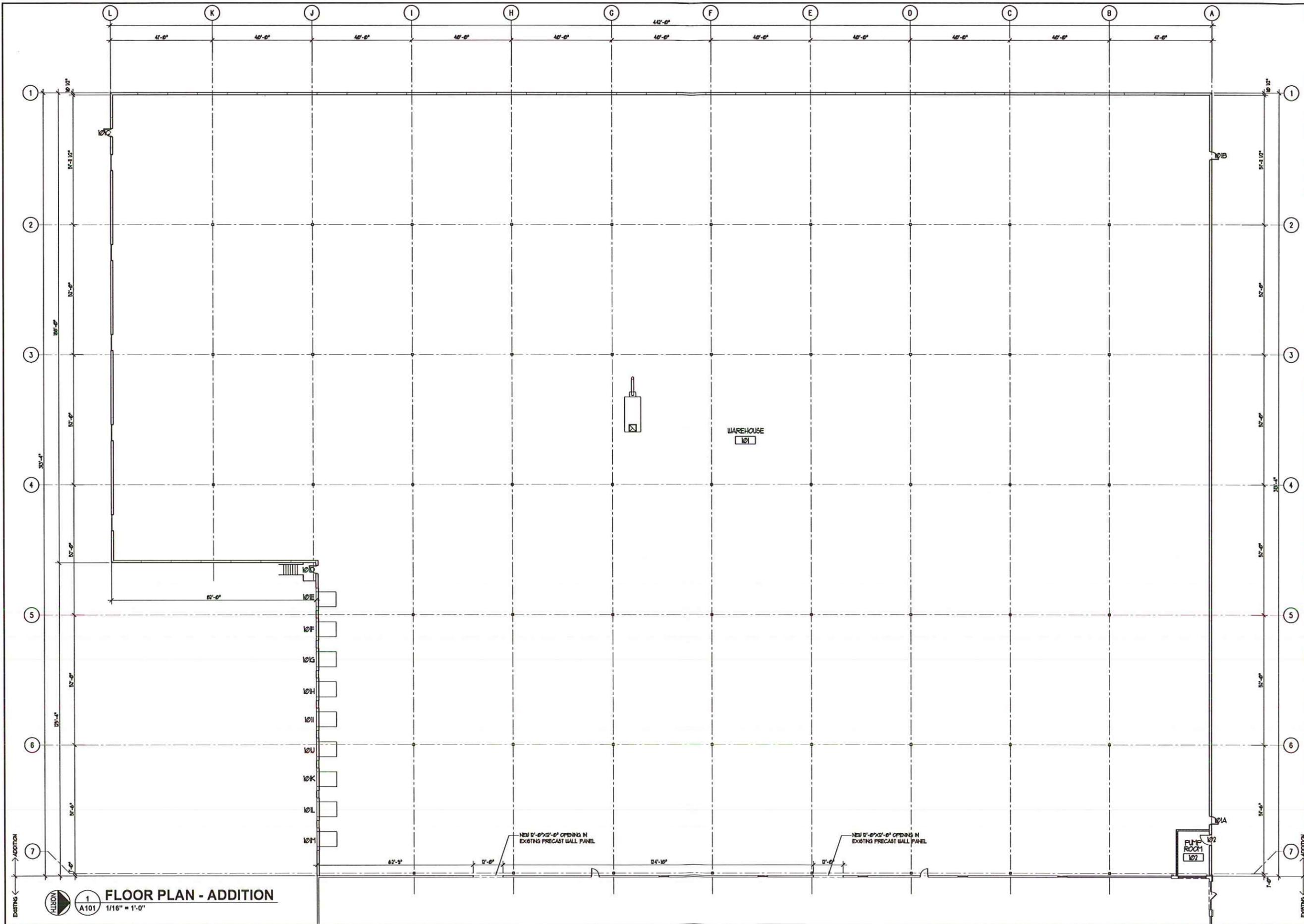
date	description
01/28/09	TECHNICAL REVIEW
02/20/09	TECHNICAL REVIEW COMMENTS

COMPOSITE FLOOR PLAN
TECHNICAL REVIEW SET

date	description
01/28/09	TECHNICAL REVIEW
02/20/09	TECHNICAL REVIEW COMMENTS

FLOOR PLAN - ADDITION
 TECHNICAL REVIEW SET

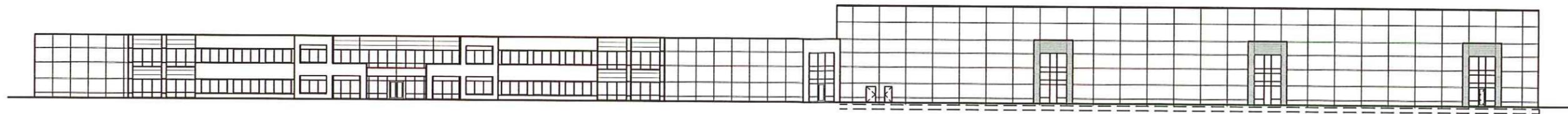
A101



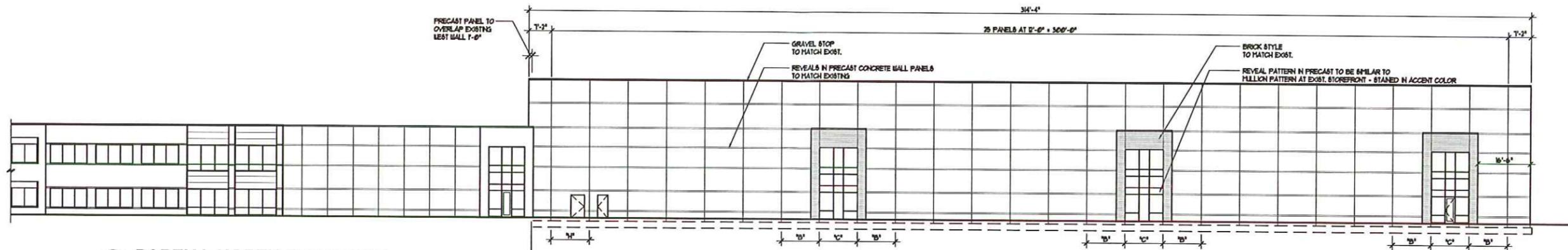
1 FLOOR PLAN - ADDITION
 1/16" = 1'-0"

date	description
01/28/09	TECHNICAL REVIEW
02/20/09	TECHNICAL REVIEW COMMENTS

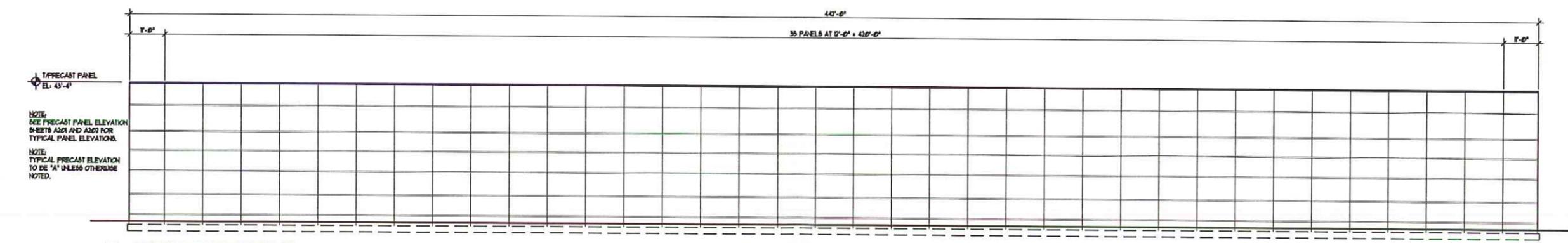
ELEVATIONS
TECHNICAL REVIEW SET



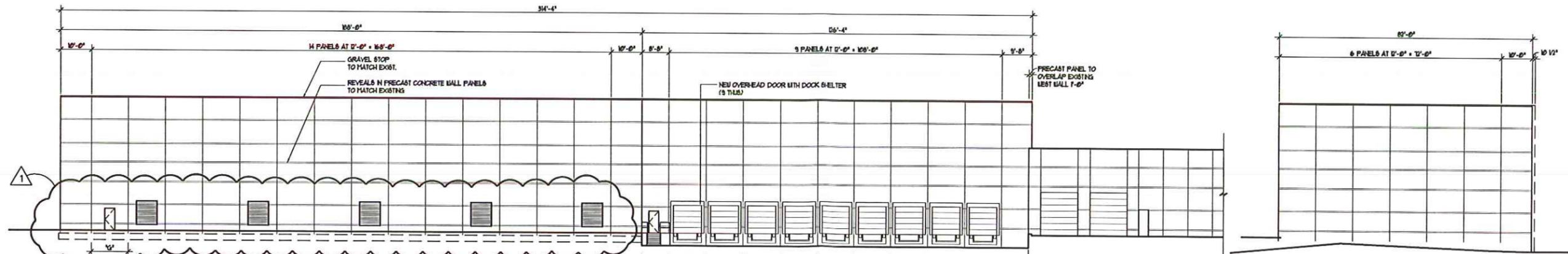
1 COMPOSITE NORTH ELEVATION
A200 SCALE: N.T.S.



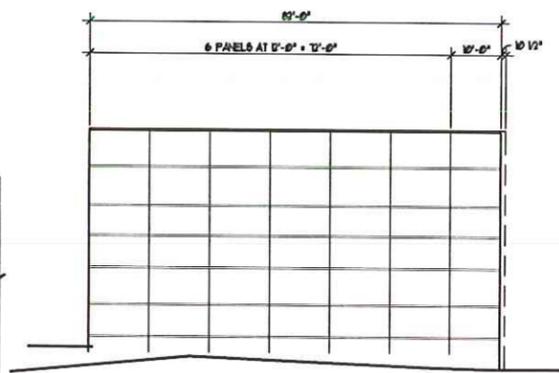
2 PARTIAL NORTH ELEVATION
A200 1/16" = 1'-0"



3 WEST ELEVATION
A200 1/16" = 1'-0"



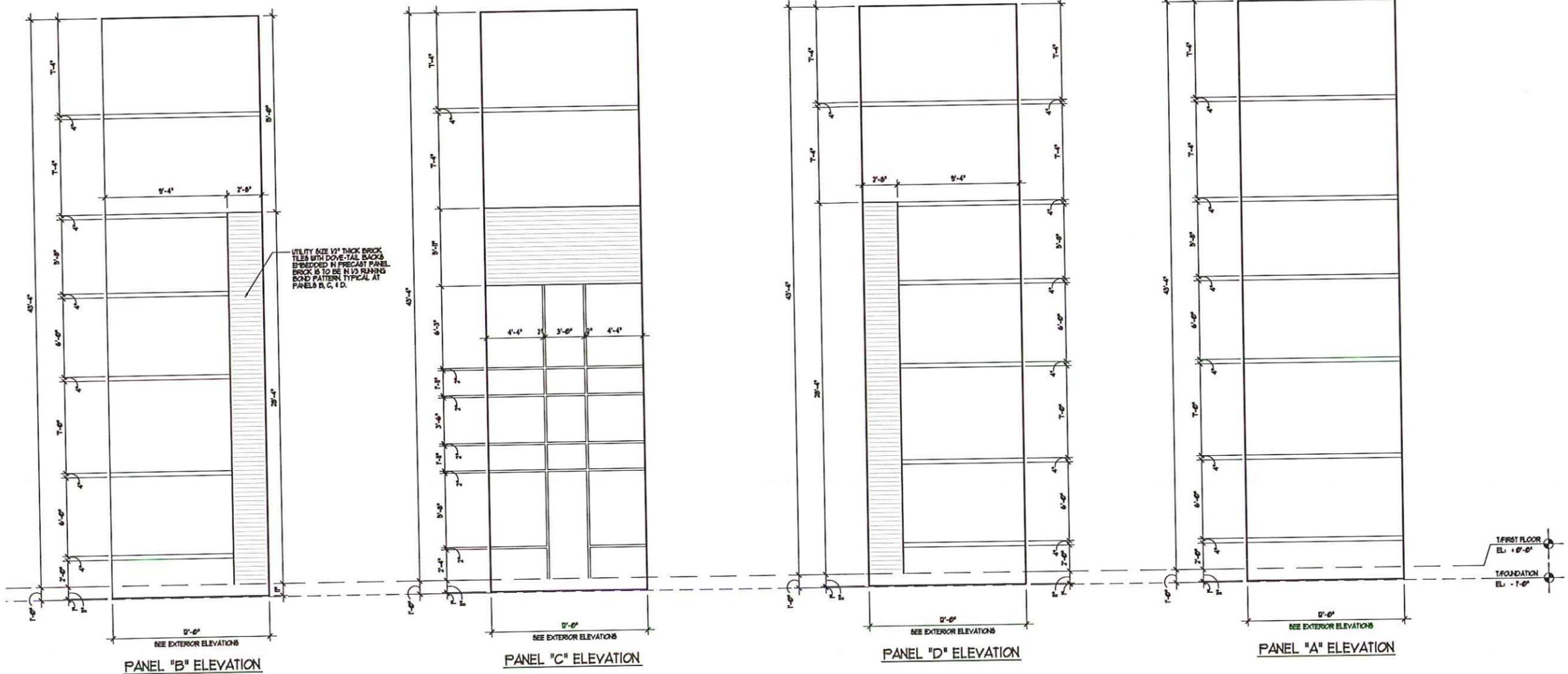
4 PARTIAL SOUTH ELEVATION
A200 1/16" = 1'-0"



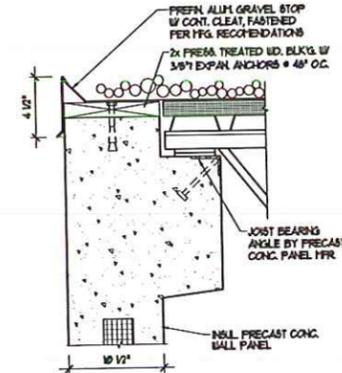
5 PARTIAL WEST ELEVATION
A200 1/16" = 1'-0"

date	description
01/26/09	TECHNICAL REVIEW
02/20/09	TECHNICAL REVIEW COMMENTS

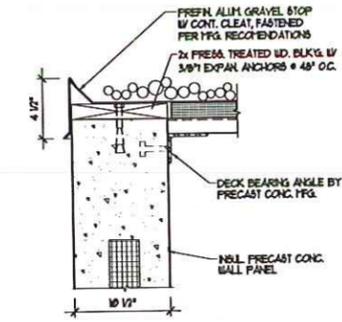
PRECAST PANEL ELEVATIONS
SECTIONS
TECHNICAL REVIEW SET



1 PRECAST PANEL ELEVATIONS
1/4" = 1'-0"



2 JOIST BEARING
1 1/2" = 1'-0"



3 DECK BEARING
1 1/2" = 1'-0"

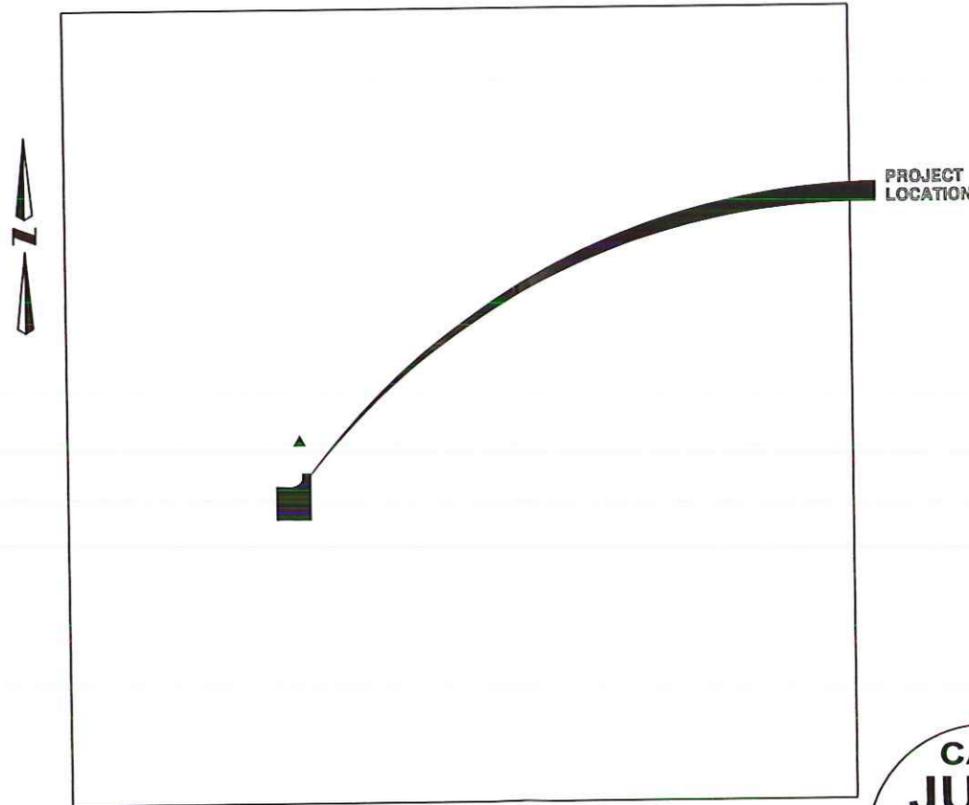
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PROPOSED SITE IMPROVEMENTS FOR 777 HICKORY HILL DRIVE

PART OF SECTION 9, T 43 N, R 11 E
VILLAGE OF VERNON HILLS
LAKE COUNTY, ILLINOIS

INDEX OF SHEETS

LAST REV. DATE	
2-20-09	1. TITLE SHEET
	2. EXISTING CONDITIONS
	3. AERIAL PHOTOGRAPH
2-20-09	4. SITE DIMENSION PLAN
2-20-09	5. UTILITY PLAN
2-20-09	6. GRADING & EROSION CONTROL PLAN
2-20-09	7. SPECIFICATIONS
2-20-09	8. DETAILS



LOCATION MAP

STANDARD SYMBOLS

PROPOSED

- SANITARY MANHOLE (M.H.)
- STORM MANHOLE OR INLET MANHOLE (M.H. or I.M.H.)
- UNDERDRAIN INLET
- INLET (INL.)
- VALVE & VAULT (V.V.)
- VALVE & BOX (V.B.)
- WATER SERVICE BOX
- FIRE HYDRANT (HYD.)
- HEADWALL OR FLARED END SECTION (F.E.S.)
- DITCH
- SWALE
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- STREET LIGHT
- SEE SHEET NUMBER
- PITCH-OUT CURB & GUTTER
- DEPRESSED CURB & GUTTER

EXISTING

- BENCHMARK
- SANITARY MANHOLE (M.H.)
- STORM MANHOLE OR INLET MANHOLE (M.H. or I.M.H.)
- CATCH BASIN (C.B.)
- INLET (INL.)
- VALVE & VAULT (V.V.)
- VALVE & BOX (V.B.)
- WATER SERVICE BOX
- FIRE HYDRANT (HYD.)
- HEADWALL OR FLARED END SECTION (F.E.S.)
- DITCH
- SWALE
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- STREET LIGHT

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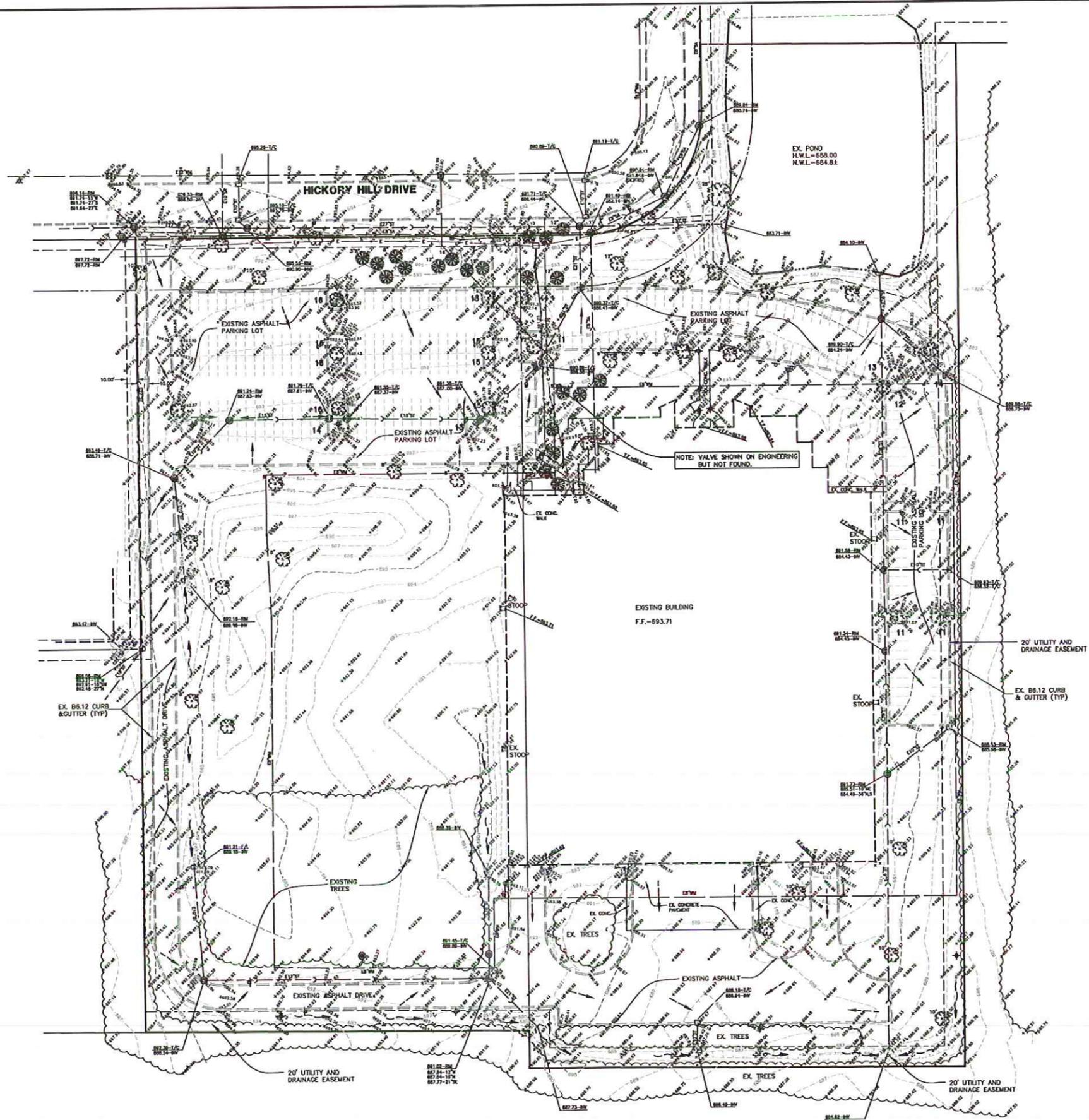
BENCHMARK: BRASS CAP MONUMENT IN GRASS AREA BETWEEN PARKING LOT OF 700-740 & 750 CORPORATE WOODS PARKWAY ELEVATION 693.64 NAVD 88

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 BIDDER. 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 REPRESENTATIVE UTILITY COMPANIES DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.

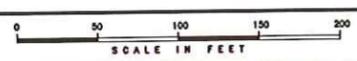
<p>SCALE IN FEET</p>	<p>CAS 2-20-09 DATE: 2-20-09</p>	<p>REVISED PER VILLAGE REVIEW</p>	<p>DESIGNED BY: DATE: 1-28-09 MRT CHECKED BY: DATE: 1-28-09 TCT APPROVED BY: DATE: 1-28-09 DGF</p>	<p>GREENGARD, INC. Engineers • Surveyors • Planners 111 Barclay Blvd., Suite 310, Lincolnshire, Illinois 60069-3623 PHONE: 847-834-3863 FAX: 847-834-0687 E-MAIL: 231@GREENGARDINC.COM ILL. REGISTRATION NO. 184-000995</p>	<p>SCALE: NONE DRAWING NO. 54130 SHEET 1 of 8</p>	<p>ZF INDUSTRIES - 777 HICKORY HILL DRIVE TITLE SHEET</p>
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LEGEND

- 104- CONTOUR
- x 105.08 SPOT ELEVATION
- DECIDUOUS TREE W/DIA.
- CONFEROUS TREE W/DIA.
- FLARED END SECTION
- SANITARY MANHOLE
- STORM MANHOLE
- INLET
- WATER SERVICE BOX
- VALVE & VAULT
- FIRE HYDRANT
- UTILITY POLE
- LIGHT STANDARD
- STORM CULVERT
- 8" S&S SANITARY SEWER
- 12" S&S STORM SEWER
- 8" W WATER MAIN
- DITCH
- SWALE
- DIRECTION SURFACE DRAINAGE
- FENCE
- GAS LINE
- ELECTRIC
- TELEPHONE
- SIGN



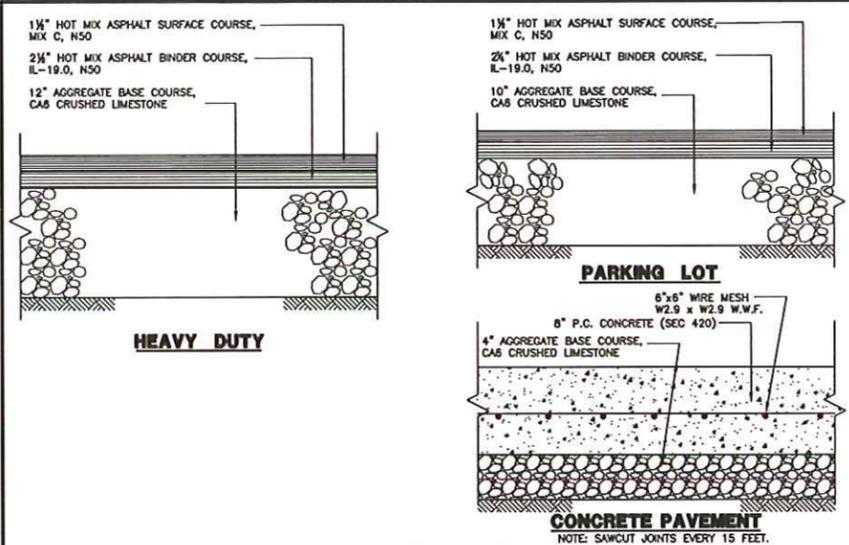
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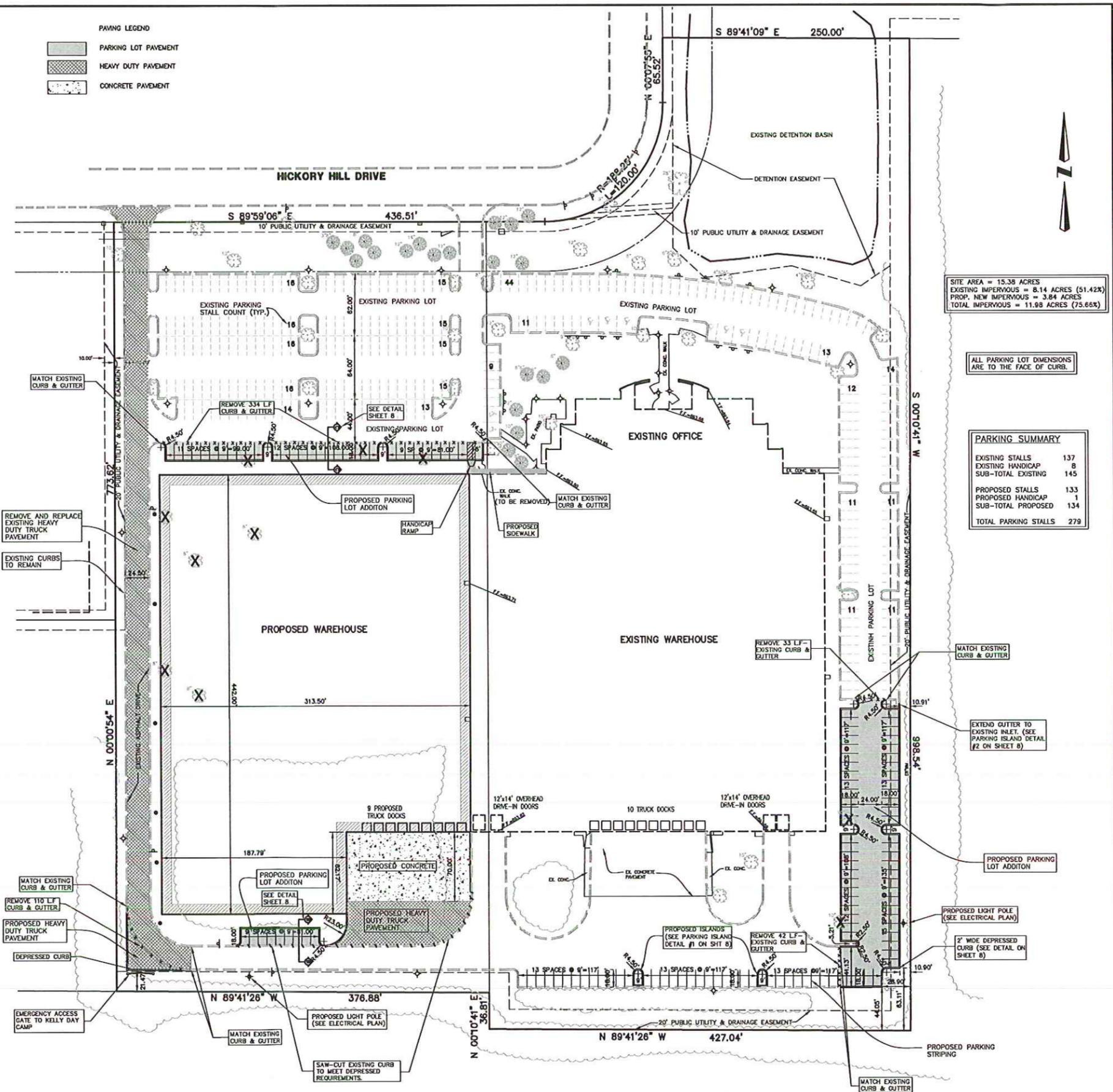
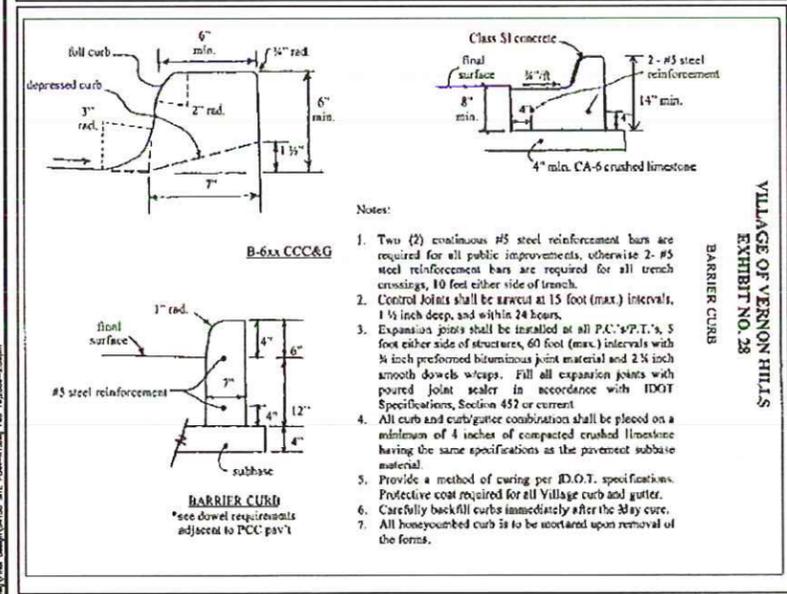
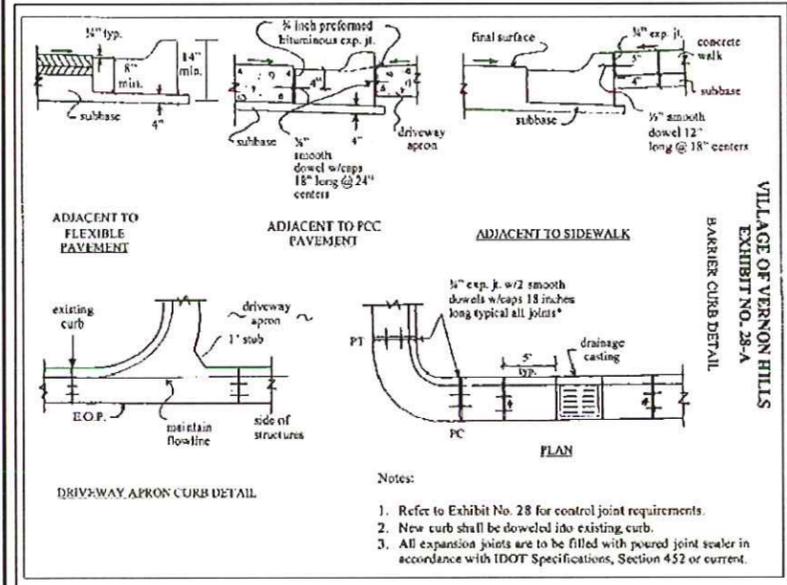
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 FAX: 847-634-0087 ILL. REGISTRATION NO. 184-000995

SCALE: 1"=50'
 DRAWING NO. 54130
 SHEET 2 OF 8

ZF INDUSTRIES - 777 HICKORY HILL DRIVE
EXISTING CONDITIONS



PAVEMENT DETAILS

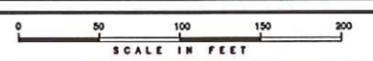


SITE AREA = 15.38 ACRES
 EXISTING IMPERVIOUS = 8.14 ACRES (51.42%)
 PROP. NEW IMPERVIOUS = 3.84 ACRES
 TOTAL IMPERVIOUS = 11.88 ACRES (75.66%)

ALL PARKING LOT DIMENSIONS ARE TO THE FACE OF CURB.

PARKING SUMMARY

EXISTING STALLS	137
EXISTING HANDICAP	8
SUB-TOTAL EXISTING	145
PROPOSED STALLS	133
PROPOSED HANDICAP	1
SUB-TOTAL PROPOSED	134
TOTAL PARKING STALLS	279



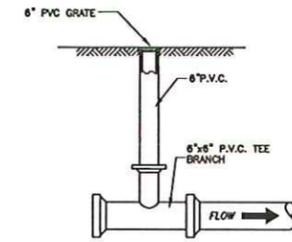
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APPROVED BY	DNF	DATE	1-28-09

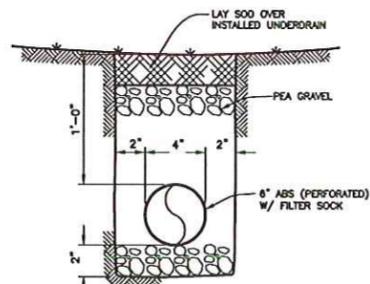
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SCALE	1"=50'
DRAWING No.	54130
SHEET	4 of 8

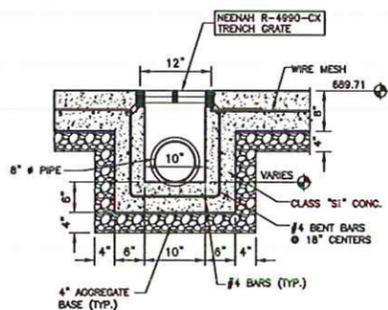
ZF INDUSTRIES - 777 HICKORY HILL DRIVE
SITE PLAN



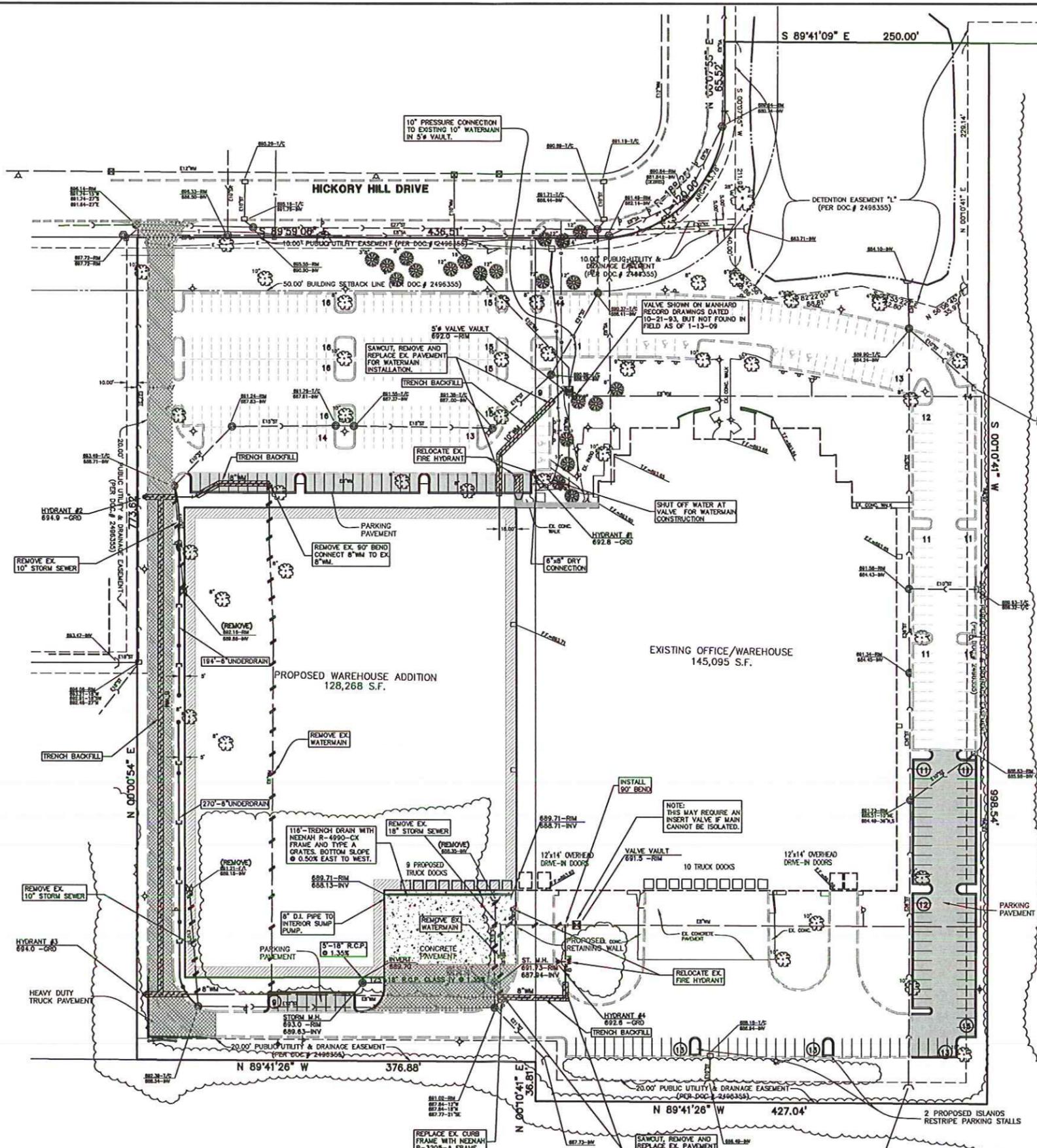
UNDERDRAIN INLET DETAIL



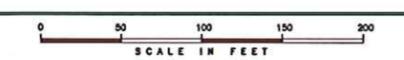
UNDERDRAIN DETAIL



TRENCH DRAIN DETAIL



EXISTING		LEGEND		PROPOSED	
(Symbol)	10"	(Symbol)	DECIDUOUS TREE W/DIA.	(Symbol)	8" SA
(Symbol)	12"	(Symbol)	CONIFEROUS TREE W/DIA.	(Symbol)	12" ST
(Symbol)	SANITARY MANHOLE	(Symbol)	UNDERDRAIN INLET	(Symbol)	8" W
(Symbol)	STORM MANHOLE	(Symbol)	INLET	(Symbol)	12" W
(Symbol)	UNDERDRAIN INLET	(Symbol)	WATER SERVICE BOX	(Symbol)	8" W
(Symbol)	VALVE & VAULT	(Symbol)	FIRE HYDRANT	(Symbol)	UNDERDRAIN
(Symbol)	UTILITY POLE	(Symbol)	UTILITY POLE	(Symbol)	
(Symbol)	LIGHT STANDARD	(Symbol)	STORM CULVERT	(Symbol)	
(Symbol)	STORM CULVERT	(Symbol)	8" SA	(Symbol)	
(Symbol)	8" SA	(Symbol)	12" ST	(Symbol)	
(Symbol)	12" ST	(Symbol)	8" W	(Symbol)	
(Symbol)	8" W	(Symbol)	UNDERDRAIN	(Symbol)	



DESIGNED BY:	TCT/MRT	DATE:	1-28-09
CHECKED BY:	TCT	DATE:	1-28-09
APPROVED BY:	DRP	DATE:	1-28-09

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SCALE:	1"=50'	PROJECT:	ZF INDUSTRIES - 777 HICKORY HILL DRIVE
DRAWING NO.:	54130	SHEET:	5 OF 8
		UTILITY PLAN	

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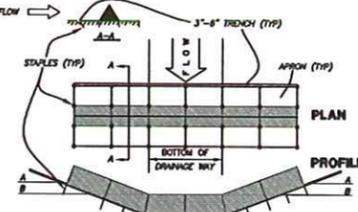
NOTES:

- 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.
- SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF UPLAND DISTURBANCE.
- TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN FOURTEEN (14) CALENDAR DAYS OF THE END OF ACTIVE HYDROLOGICAL DISTURBANCE. PERMANENT STABILIZATION SHALL BE DONE WITHIN FOURTEEN (14) DAYS AFTER COMPLETION OF FINAL GRADING OF THE SOIL.
- ALL STORM SEWER FACILITIES THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, FILTERED, OR OTHERWISE TREATED TO REMOVE SEDIMENT BY MEANS OF PLACING FILTER FABRIC BETWEEN THE FRAME AND LID.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.
- ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
- 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.
- ALL OVERFLOW SHALES SHALL BE PROTECTED BY THE USE OF EROSION CONTROL BLANKETS.
- CONSTRUCTION AND EROSION CONTROL SEQUENCING SHOWN IS GENERAL IN NATURE AND MAY VARY DEPENDING ON WEATHER CONDITIONS AND/OR PHASING OF CONSTRUCTION.
- AT A MINIMUM, THE STORM WATER MANAGEMENT FACILITIES, INCLUDING THE STORM SEWER, AND THE STORMWATER STORAGE AREA, SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BUILDING CONSTRUCTION BEGINS.
- TEMPORARY AND PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH THE SCHEDULE PROVIDED ON THE PLANS.
- CONSTRUCTION AND EROSION CONTROL SEQUENCING:
 - INSTALL SOIL EROSION AND SEDIMENT CONTROL MEASURES.
 - SILT FENCE b.) CATCH-ALL INLET PROTECTORS c.) TRIANGULAR SILT DIKS
 - INSTALL UNDERGROUND WATERMAIN IMPROVEMENTS.
 - COMPLETE NECESSARY GRADING FOR BUILDINGS AND PAVED AREAS.
 - STOCKPILE EXCESS TOPSOIL OR REMOVE FROM SITE.
 - BEGIN BUILDING CONSTRUCTION.
 - FINISH GRADE PARKING AREAS.
 - CONSTRUCT PARKING PAVEMENT AND CURBS.
 - INSTALL RIP-RAP IN SOUTHEAST CORNER.
 - RESURFACE TOPSOIL.
 - RESTORE REMAINING DISTURBED AREAS AND PROVIDE LANDSCAPING.
- ALL INLETS, STRUCTURES, PIPES, SHALES AND ROADS SHALL BE KEPT CLEAN AND FREE OF DIRT AND SILT.
- STOCKPILES SHALL HAVE A BERM OR TRENCH AROUND THE CIRCUMFERENCE TO CONTROL SILT. STOCKPILES SHALL BE COVERED WITHIN 14 DAYS SHALL BE SEEDING. STOCKPILES SHALL ALSO HAVE A SILT FENCE PLACED AROUND THE PERIMETER.
- ALL STORM STRUCTURES SHALL HAVE "CATCH-ALL" INLET PROTECTOR OR EQUIVALENT PLACED UNDER THE COVER AS INDICATED ON THE PLANS.
- ALL WATERCOURSES SHALL BE TOTALLY PROTECTED WITH SILT FENCE.
- ADDITIONAL SOIL EROSION CONTROL MEASURES SHALL BE UNDERTAKEN DURING THE COURSE OF CONSTRUCTION, AS NEEDED.
- MAINTAIN SOIL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF THIS PROJECT.
- REPLACE SOIL EROSION CONTROL DEVICES WITH SOO AND TOPSOIL AT THE COMPLETION OF THE PROJECT.
- THIS PLAN WILL FOLLOW STANDARDS AND RECOMMENDATIONS IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR SOIL, EROSION AND SEDIMENTATION CONTROL," 1987 EDITION, PUBLISHED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, AND "PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL," (GREENBOOK, 1981) BY THE "NORTHEASTERN ILLINOIS SOIL EROSION AND SEDIMENTATION CONTROL STEERING COMMITTEE". ALL CONSTRUCTION WILL ADHERE TO THE REQUIREMENTS SET FORTH IN THE EPA'S NEW CONSTRUCTION SITE ACTIVITIES NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER PERMIT.
- THE PURPOSE OF THIS PLAN IS TO MINIMIZE AND TO CONTROL THE SOIL EROSION AND RESULTANT SEDIMENTATION, WHICH ARE RELATED TO THE DEVELOPMENT OF THE SITE. ALTHOUGH MOST OF THE MEASURES ARE TEMPORARY IN NATURE, THEY ALL TARGET THE LONG-RANGE CONTROL OF EROSION AND SEDIMENTATION IN DOWNSTREAM AREAS. THE SPECIFIC COMPONENTS OF THIS PLAN ARE DESIGNED TO PROVIDE PUBLIC AREA IMPROVEMENTS. ALL AREAS USED BY THE CONTRACTOR'S OPERATIONS ARE SUBJECT TO THE PROVISIONS OF THIS PLAN. THIS INCLUDES BOTH ACTIVE OUTFALL ZONES AS WELL AS STOCK PILES AND STORAGE AREAS.
- DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES INDICATED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER SOIL CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKS.
- TRIANGULAR SILT DIKS SHALL BE PLACED IN SHALES. SEDIMENT SHALL BE REMOVED ADJACENT TO THE SILT DIKS WHEN THE DEPTH OF THE SEDIMENT EXCEEDS 6 INCHES.
- PUMPS MAY BE USED AS BYPASS DEVICES, BUT IN NO CASE WILL THE WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS.
- DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON-SITE FOR THE PURPOSE OF WATERING DOWN SOIL WHICH MAY OTHERWISE BECOME AIRBORNE.
- QUALIFIED PERSONNEL (PROVIDED BY THE OWNER GENERAL PERMITTEE) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FULLY STABILIZED. STABILIZATION MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS ONE INCH OR GREATER OR EQUIVALENT SNOWFALL. REPORTING SHALL BE DONE IN ACCORDANCE WITH PART N.D.4.a. THROUGH I. OF THE GENERAL PERMIT.
- PLAN IS TO BE KEPT AT CONSTRUCTION FACILITY DURING THE ENTIRE CONSTRUCTION PERIOD.

SOIL PROTECTION CHART

TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING					A							
DORMANT SEEDING	B											B
TEMPORARY SEEDING				C								
SODDING						E						
MULCHING						F						

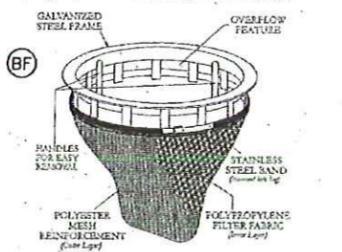
A = TALL FESCUE 240 LBS./ACRE B = TALL FESCUE 480 LBS./ACRE + 2T STRAW MULCH
 C = SPRING GRASS 100 LBS./ACRE D = WHEAT OR CEREAL RYE 300 LBS./ACRE
 E = SOO F = STRAW MULCH 2 TONS /ACRE
 IRRIGATION NEEDED DURING JUNE & JULY.



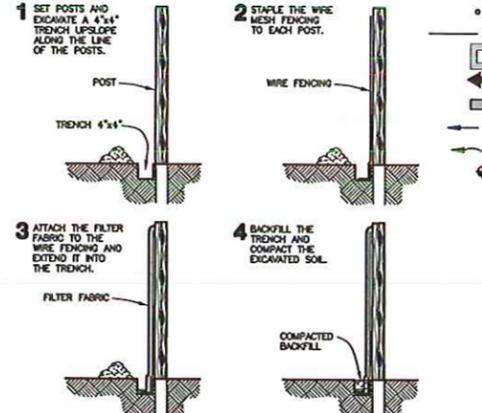
TRIANGULAR SILT DIKE INSTALLATION

- NOTES:**
- TEMPORARY SILT DIKS SHALL BE TRIANGULAR-SHAPED, HAVING A HEIGHT OF AT LEAST EIGHT TO TEN INCHES (8"-10") WITH EQUAL SIDES AND A BOTTOM TO TWENTY INCH (18"-20") WIDE.
 - THE TRIANGULAR-SHAPED INNER MATERIAL SHALL BE LIMEWASH FLOW.
 - THE OUTER COVER SHALL BE A WOVEN GEOTEXTILE FABRIC PLACED AROUND THE INNER MATERIAL AND ALLOWED TO EXTEND BEYOND BOTH SIDES OF THE TRIANGLE TWO TO THREE FEET (2'-3').
 - THE DIKS SHALL BE ATTACHED TO THE GROUND WITH NO.11 GAUGE WIRE STAPLES SIX TO EIGHT INCHES (6"-8") LONG.
 - "A" MUST BE ABOVE "B".

Catch-All - An inlet filtration device designed to help prevent sedimentation. Available for round, rectangular, beehive, or roll type inlet castings.

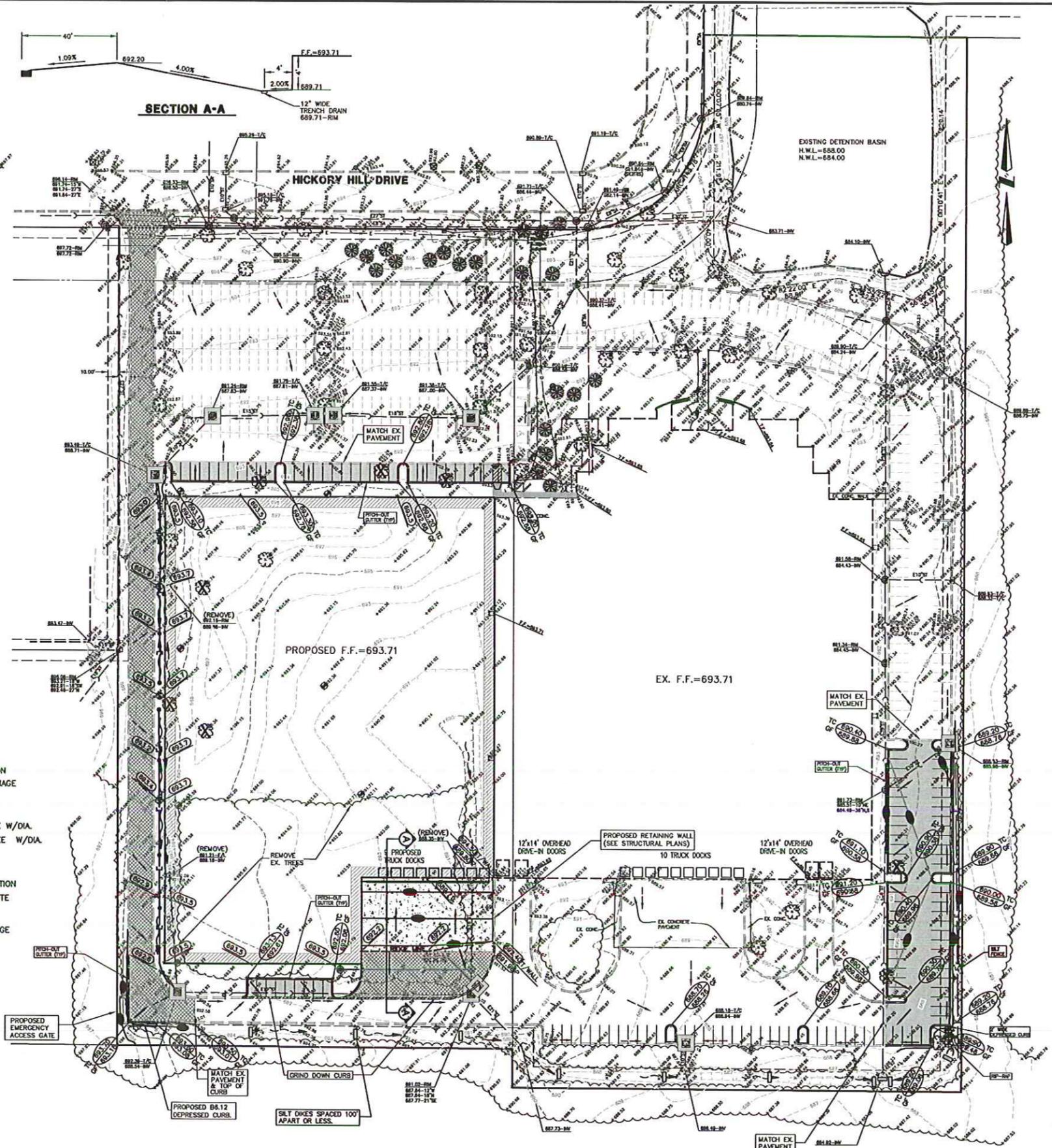


Catch-All
 Installed temporarily at construction sites and adjacent truck routes to help prevent sedimentation of rivers and creeks, and overloading of detention ponds during the construction process. Installed permanently in large parking lots, recreational parks, and high-volume commercial areas to prevent silt and debris, such as cigarette butts and fast food grease, from entering the system. The overflow feature insures that flows won't be restricted should the filter become clogged with impurities. It's designed to be cleaned. Properly maintained, the Catch-All will not restrict the flow of water into the system.



SILT FENCE INSTALLATION PROCEDURE

NOTE: TO MEET AASHTO STANDARD SPECIFICATION M288-00



LEGEND

- - - 121 - - - EXISTING CONTOURS
- 122 ○ PROPOSED CONTOURS
- x 120.8 EXISTING SPOT ELEVATION
- x 120.5 PROPOSED SPOT ELEVATION
- DIRECTION SURFACE DRAINAGE
- PROPOSED SWALE
- PROPOSED SUMMIT
- EXISTING DECIDUOUS TREE W/DIA.
- EXISTING CONIFEROUS TREE W/DIA.
- DOWNSPOUT
- SILT FENCE
- CATCH-ALL INLET PROTECTION
- 100 YEAR OVERFLOW ROUTE
- TRIANGULAR SILT DIKE
- EXISTING SURFACE DRAINAGE
- EXISTING SWALE
- SOIL BORING LOCATION

CONTRACTOR CERTIFICATION STATEMENT.

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERM AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (LR100000) THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

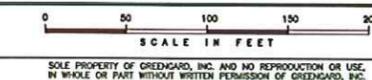
DATED THIS _____ DAY OF _____

BY: _____ TITLE: _____

COMPANY: _____

ADDRESS: _____

TELEPHONE: _____



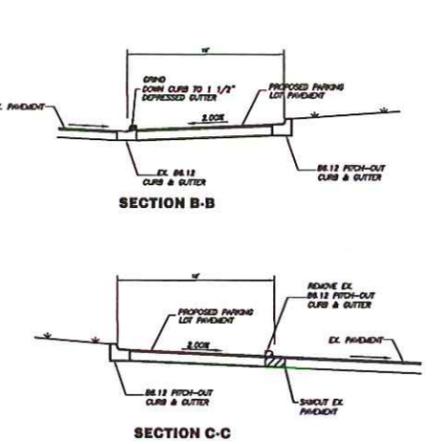
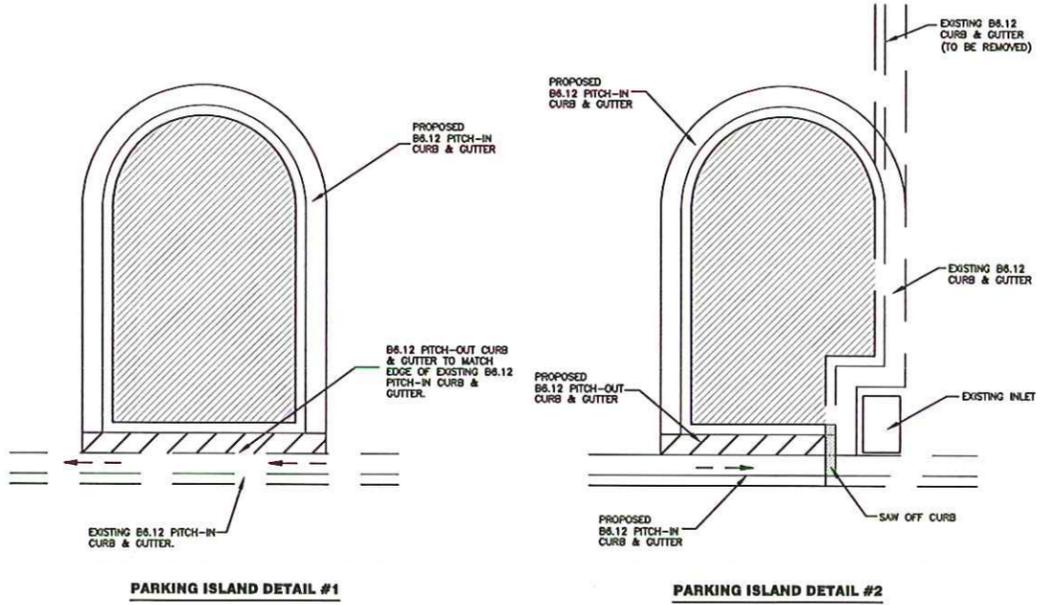
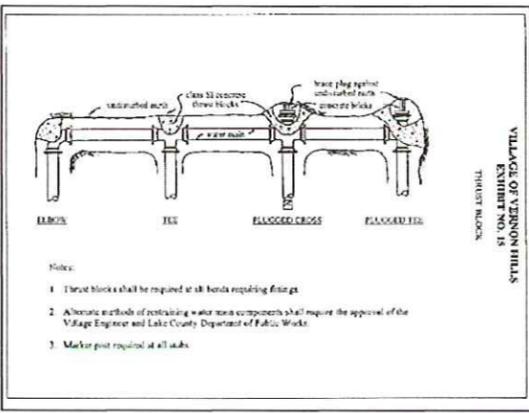
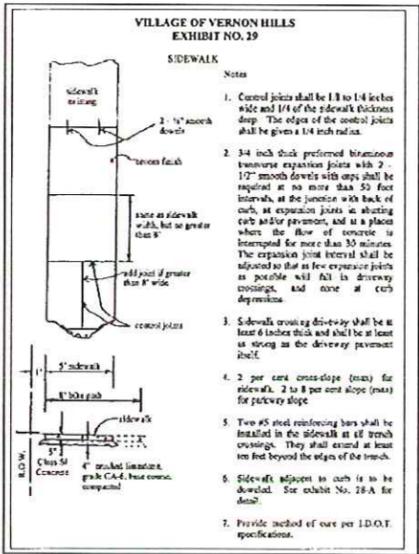
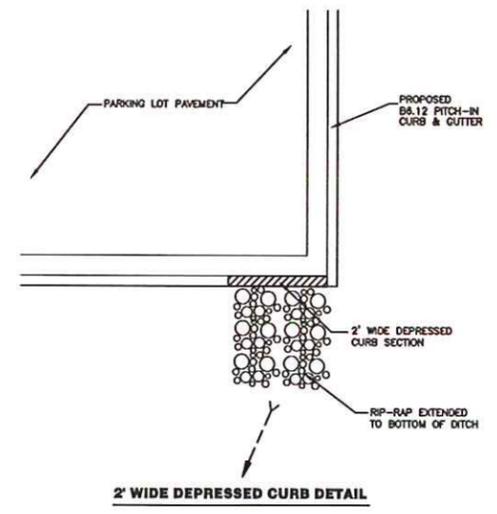
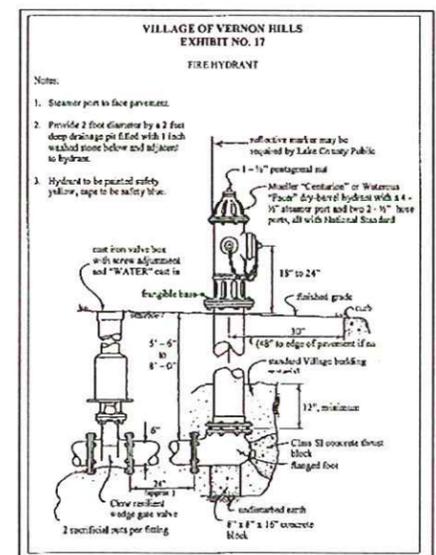
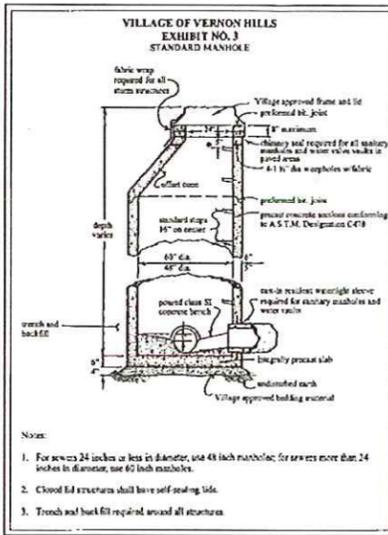
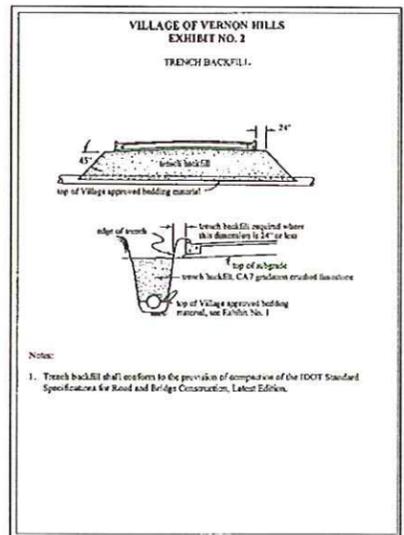
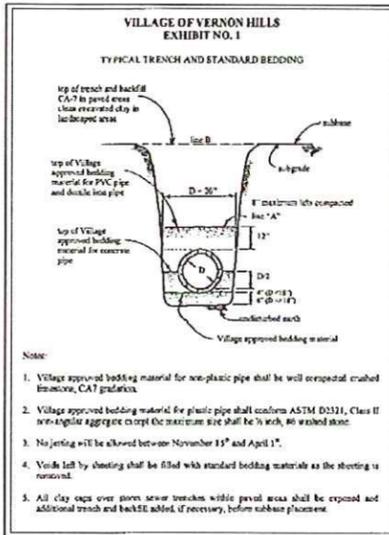
CAS	2-20-09	REVISED PER VILLAGE REVIEW	DATE	REVISIONS
DATE				

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TCT	1-28-09
APPROVED BY:	DATE:
DRP	1-28-09

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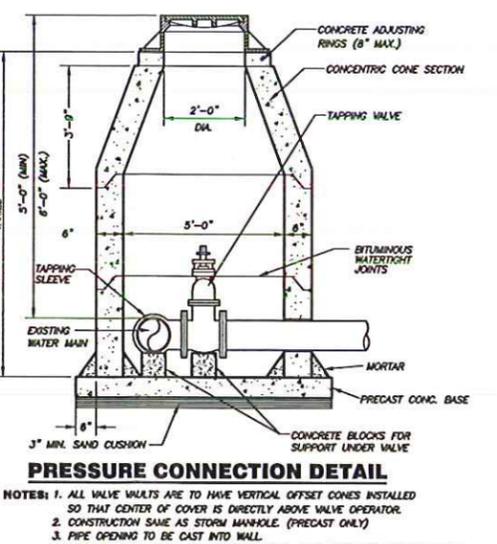
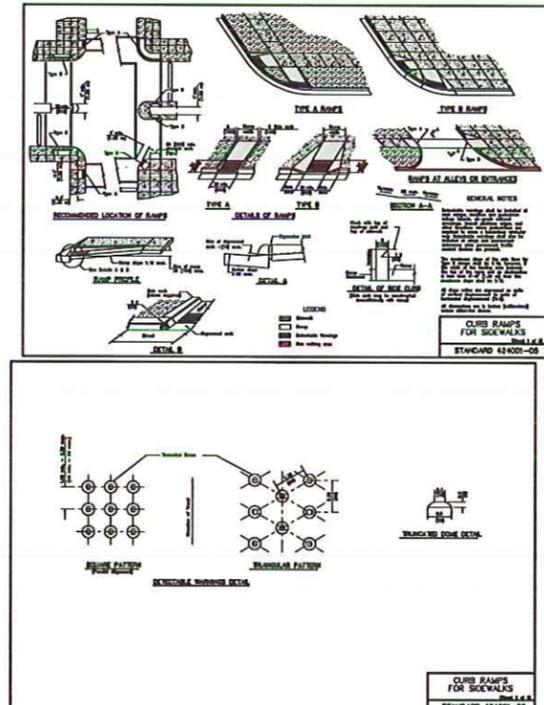
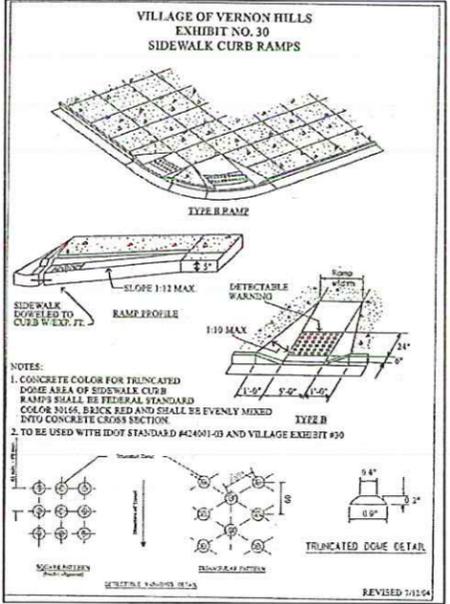
SCALE: 1" = 50'
 DRAWING NO. 54130
 SHEET 6 OF 8
ZF INDUSTRIES - 777 HICKORY HILL DRIVE
GRADING & EROSION CONTROL PLAN

GENERAL NOTES	GENERAL NOTES	UNDERGROUND UTILITIES	UNDERGROUND UTILITIES	
<p>1. THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS, AS ADOPTED JANUARY 1, 2007, THE "SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" (FIFTH EDITION) DATED MAY 1996, AND THE VILLAGE OF VERNON HILLS CODES AND ORDINANCES ARE INCORPORATED HEREIN BY REFERENCE AND SHALL BE REFERRED TO AS THE "STANDARD SPECIFICATIONS". IN CASE OF CONFLICT, THE VILLAGE OF VERNON HILLS CODES AND ORDINANCES SHALL GOVERN.</p> <p>2. ALL REFERENCE TO THE STANDARD SPECIFICATIONS TO BASIS OF PAYMENT IS HEREBY DELETED. COMPENSATION TO THE CONTRACTOR SHALL BE MADE ON THE BASIS OF THE UNIT PRICES AND PAY ITEMS INDICATED IN THE SCHEDULE OF PRICES, AND SUCH COMPENSATION SHALL BE CONSIDERED PAYMENT IN FULL FOR ALL WORK PERFORMED UNDER THIS CONTRACT.</p> <p>3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE PROJECT SITE. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER BEFORE ANY WORK IS PERFORMED; OTHERWISE, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISCREPANCIES OR OMISSIONS ON THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL GET WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED. FAILING TO GET SUCH INSTRUCTION, THE CONTRACTOR WILL BE PROCEEDING AT HIS OWN RISK AND EXPENSE.</p> <p>4. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED AGAINST ALL DEFECTS IN MATERIALS AND WORKMANSHIP BY THE CONTRACTOR.</p> <p>5. BEFORE ACCEPTANCE BY THE OWNER AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVED BY THE OWNER OR HIS REPRESENTATIVE. FINAL PAYMENT WILL BE MADE AFTER ALL OF THE CONTRACTOR'S WORK HAS BEEN APPROVED AND ACCEPTED.</p> <p>6. LINE AND GRADE STAKES WILL BE SET ONE TIME ONLY BY THE ENGINEER AT THE OWNER'S EXPENSE. CONTRACTORS SHALL NOTIFY THE ENGINEER THAT STAKES WILL BE NEEDED AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF STARTING THEIR WORK. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO PROTECT STAKES PROVIDED FOR HIS USE AND TO REPORT TO THE OWNER'S SUPERINTENDENT ANY SPECIFIC INSTANCES OF DESTROYING STAKES AND/OR MARKMENTS PROVIDED.</p> <p>7. WHEN THE PLANS 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 DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.</p> <p>8. THE CONTRACTOR AGREES TO INDEMNIFY AND HOLD THE COUNTY OF LAKE, DEPARTMENT OF PUBLIC WORKS, THE VILLAGE OF VERNON HILLS, OWNER, AND ENGINEER HARMLESS FROM ALL LIABILITY AND EXPENSES INCLUDING THE COST OF DEFENDING ACTIONS ARISING OUT OF THE PERFORMANCE OF THE WORK OR OUT OF ANY CLAIM BY ANY SUBCONTRACTOR OR ANYONE WHO FURNISHES MATERIAL OR LABOR, OR ANY LOSS OR DAMAGE THAT MAY DIRECTLY OR INDIRECTLY BE CAUSED BY THE INSTALLATION AND TESTING OF THE IMPROVEMENTS.</p> <p>9. WHENEVER PERFORMANCE OF WORK IS INDICATED ON THE PLANS AND NO PAY ITEM IS INCLUDED IN THE CONTRACT FOR PAYMENT, THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE MADE.</p> <p>10. 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, THIS LOOSE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY BY THE RESPONSIBLE PARTY. 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.</p> <p>11. 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. ADEQUATE LIGHTING SHALL BE MAINTAINED FROM DUSK TO DAWN AT ALL LOCATIONS WHERE CONSTRUCTION OPERATIONS ARE IN PROGRESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES.</p> <p>12. REMOVED PAVEMENT, SIDEWALK, CURBS AND GUTTER, ETC., SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE AT LOCATIONS APPROVED BY THE ENGINEER. IF ON-SITE DISPOSAL IS NOT FEASIBLE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AN OFF-SITE DUMP SITE AT HIS OWN EXPENSE.</p> <p>13. WHERE OVERHANGING BRANCHES INTERFERE WITH OPERATIONS OF CONSTRUCTION, SAID BRANCHES SHALL BE TRIMMED AND SEALED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, AND SUCH WORK SHALL BE INCIDENTAL TO THE CONTRACT. TREES SHALL BE REMOVED ONLY AFTER RECEIVING APPROVAL OF THE OWNER. THE OWNER SHALL DESIGNATE THOSE TREES WHICH ARE TO BE REMOVED. A CONTRACTOR REMOVING TREES WITHOUT THE OWNER'S APPROVAL WILL BE RESPONSIBLE FOR REPLACEMENT OF SAID TREE(S) AS DIRECTED BY THE OWNER AT THE CONTRACTOR'S EXPENSE.</p> <p>14. ALL EXISTING TRAFFIC SIGNS, STREET SIGNS, ETC., WHICH INTERFERE WITH CONSTRUCTION OPERATIONS AND ARE NOT NEEDED FOR REMOVAL OR DISPOSAL SHALL BE REMOVED AND RESET BY THE CONTRACTOR AT LOCATIONS AS DESIGNATED BY THE ENGINEER. THIS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE MADE. DAMAGE TO THESE ITEMS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE. ALL SIGNS NOT REQUIRED TO BE RESET SHALL BE DELIVERED TO THE VILLAGE, CITY, OR COUNTY AS APPROPRIATE.</p> <p>15. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE REPORTED TO THE ENGINEER TO DETERMINE IF IT SHALL BE CONNECTED TO THE PROPOSED STORM SEWER OR EXTENDED TO OUTLET INTO A PROPOSED DRAINAGEWAY OR POND. IF THIS CANNOT BE ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH NEW PIPE OF A SIZE AND MATERIAL APPROVED BY THE ENGINEER AND PUT BACK IN ACCEPTABLE OPERATING CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE FOR ON-SITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT. THE COST OF THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE MADE.</p> <p>16. IT SHALL BE THE RESPONSIBILITY OF EACH RESPECTIVE 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.</p> <p>17. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, THE PERFORMANCE, PROGRAMS, OR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.</p> <p>18. AFTER PLANS FOR IMPROVEMENTS ARE APPROVED BY THE VILLAGE AND OTHER PUBLIC AGENCIES AS REQUIRED, A PRE-CONSTRUCTION MEETING SHALL BE CONVENED. A REPRESENTATIVE OF THE DEVELOPER OR OWNER, THE CONTRACTOR, LAKE COUNTY DEPARTMENT OF PUBLIC WORKS, AND THE VILLAGE ENGINEER SHALL ATTEND. THE MEETING TIME AND PLACE SHALL MEET THE APPROVAL OF THE VILLAGE ENGINEER.</p> <p>19. ELECTRIC, TELEPHONE, NATURAL GAS, AND OTHER UTILITY COMPANIES HAVE UNDERGROUND AND/OR OVERHEAD SERVICE FACILITIES IN THE VICINITY OF THE PROPOSED WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL ALSO BE RESPONSIBLE FOR THE PRESERVATION OF THESE FACILITIES. THE CONTRACTOR SHALL CALL JULLIIE AT (800) 802-0123 FOR UTILITY LOCATIONS TWO WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION.</p> <p>20. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER BEFORE BEGINNING CONSTRUCTION THAT THE PLANS AND SPECIFICATIONS HE HAS BEEN PROVIDED ARE CURRENT.</p> <p>21. THE CONTRACTOR SHALL KEEP A SET OF "APPROVED" CONSTRUCTION PLANS ON THE JOB SITE. HE SHALL MAINTAIN A LEGIBLE RECORD ON THESE PLANS OF ANY FIELD TILE ENCOUNTERED OR ANY MODIFICATIONS OR ALTERATIONS TO HIS WORK AS APPROVED BY THE ENGINEER. THESE PLANS AND THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE COMPLETION OF THE CONTRACTOR'S WORK AND BEFORE FINAL PAYMENT WILL BE APPROVED.</p> <p>22. THE CONTRACTOR SHALL NOTIFY THE COUNTY OF LAKE, DEPARTMENT OF PUBLIC WORKS, THE VILLAGE OF VERNON HILLS ENGINEER, AND GREENGARD, INC. FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING ANY CONSTRUCTION.</p> <p>23. THE COUNTY OF LAKE, DEPARTMENT OF PUBLIC WORKS SUPERINTENDENT OR AUTHORIZED AGENT, SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE AND/OR REJECT THE CONSTRUCTION OF WATER AND SEWERY SEWER MAIN IMPROVEMENTS AND/OR SERVICES.</p>	<p>23. AFTER FINAL APPROVAL, PROVIDE A REPRODUCIBLE RECORD DRAWING WHICH HAS BEEN FIELD CHECKED FOR ACCURACY AND ALL NECESSARY TIES AND LOCATIONS. THE INFORMATION ON THE RECORD DRAWING SHALL BE AS FOLLOWS:</p> <p>A. WATERMAIN IMPROVEMENTS</p> <ol style="list-style-type: none"> 1) ALL VALVE VAULTS OR BOXES ON MAIN LINES SHALL BE NUMBERED AND LOCATIONS TIED TO TWO PERMANENT STRUCTURES. WHEREVER POSSIBLE PERMANENT ABOVE-GROUND STRUCTURES SHALL BE USED. 2) ALL PIPES SHALL BE IDENTIFIED BY PIPE DIAMETER AND MATERIAL TYPE. EACH BEND AND TEE SHALL BE TIED TO TWO PERMANENT STRUCTURES. THE PIPE SHALL BE TIED TO A PERMANENT STRUCTURE AT A MINIMUM OF 100-FOOT INTERVALS. 3) ALL WATER SERVICES SHALL BE IDENTIFIED BY PIPE DIAMETER, PIPE MATERIAL, AND LOCATION OF B-BOX, VALVE BOX OR VAULT FROM TWO BUILDING CORNERS OR OTHER PERMANENT STRUCTURES. 4) AS-BUILT WATER MAIN PROFILE SHALL BE PROVIDED WITH MARKETS AT KEY LOCATIONS (BENDS, PIPE CROSSINGS, VAULTS, DEFLECTIONS, ETC.) AND DEPTH BELOW FINISHED GRADE. <p>B. RECORD DRAWING NOTES</p> <ol style="list-style-type: none"> 1) SHALL BE IN ACCORDANCE WITH THE VILLAGE OF VERNON HILLS DEVELOPMENT ORDINANCE, SECTION P. 2) PROPERTY CORNERS ARE NOT ACCEPTABLE AS PERMANENT STRUCTURES. 3) EXTENSION OF BUILDINGS LINES ARE NOT ACCEPTABLE FOR LOCATION OF MEASUREMENTS. 4) DEVELOPER SHALL SUBMIT A BLUE-LINE COPIES AND VERIFICATION OF AS-BUILT INFORMATION. SEPA MYLARS OF APPROVED AS-BUILTS DRAWINGS ARE REQUIRED FOR PERMITS. 5) ALL EASEMENTS MUST BE RECORDED AND SHOWN ON THE AS-BUILT DRAWINGS COMPLETE WITH DIMENSIONS. 6) RECORD DRAWINGS MUST BE CERTIFIED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER. 7) RECORD DRAWINGS MUST BE SUBMITTED PRIOR TO SCHEDULING A FIELD INSPECTION FOR RELEASE OF PERFORMANCE GUARANTEE. 	<p>GENERAL:</p> <ol style="list-style-type: none"> 1. SEWER AND WATER MAIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR SEWER AND WATER MAIN CONSTRUCTION IN ILLINOIS" (FIFTH EDITION), DATED MAY 1996, AND THE CODES OF THE LAKE COUNTY PUBLIC WORKS DEPT, THE VILLAGE OF VERNON HILLS, AND ORDINANCES CURRENTLY IN EFFECT. 2. TRENCH BACKFILL SHALL BE PROVIDED BENEATH AND WITHIN TWO FEET (2') OF ALL EXISTING AND PROPOSED PIPERENTS. TRENCH BACKFILL SHALL BE SELECT GRANULAR BACKFILL CA-6 AND THOROUGHLY COMPACTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. 3. THE FOLLOWING REQUIREMENTS SHALL BE ADHERED TO WHEN THE WATER MAIN MUST PASS UNDERNEATH THE STORM OR SANITARY SEWER, OR BE LAID HORIZONTALLY CLOSER THAN TEN FEET (10') HORIZONTAL: <ol style="list-style-type: none"> A. WATER MAINS MAY BE LOCATED CLOSER THAN TEN (10') FEET TO A SEWER LINE WHEN: <ol style="list-style-type: none"> 1) LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF TEN (10') FEET; AND 2) THE WATER MAIN INVERT IS AT LEAST EIGHTEEN (18") INCHES ABOVE THE CROWN OF THE SEWER; AND 3) THE WATER MAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELVE LOCATED TO ONE SIDE OF THE SEWER. B. WHEN IT IS IMPOSSIBLE TO MEET THE ABOVE REQUIREMENT, BOTH THE WATER MAIN AND DRAIN OR SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE OR PVC PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION. THE DRAIN OR SEWER SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE BACKFILLING. <p>VERTICAL:</p> <ol style="list-style-type: none"> A. A WATER MAIN SHALL BE SEPARATED FROM A SEWER SO THAT ITS INVERT IS A MINIMUM OF EIGHTEEN (18) INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATER MAINS CROSS STORM SEWERS, SANITARY SEWERS, OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN TEN (10) FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSING. A LENGTH OF WATER MAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN. B. BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, OR PVC PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION WHEN: <ol style="list-style-type: none"> 1) IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN (A) ABOVE; OR 2) THE WATER MAIN PASSES UNDER A SEWER OR DRAIN. C. A VERTICAL SEPARATION OF EIGHTEEN (18) INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATER MAIN SHALL BE MAINTAINED WHERE A WATER MAIN CROSSES UNDER A SEWER. SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLE AND BREAKING THE WATER MAIN. D. CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNDER THE PERPENDICULAR DISTANCE FROM THE WATER MAIN TO THE SEWER OR DRAIN LINE IS AT LEAST TEN (10) FEET. <p>4. THE COST OF ALL REQUIRED TESTING ON UNDERGROUND IMPROVEMENTS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION COST OF THAT IMPROVEMENT.</p> <p>5. STRUCTURES SHALL HAVE NO MORE THAN EIGHT INCHES (8") OF PRECAST CONCRETE ADJUSTING RINGS. A MAXIMUM OF TWO ADJUSTMENT RING MUST BE USED.</p> <p>WATER MAIN:</p> <ol style="list-style-type: none"> 1. WATER MAIN AND FITTINGS SHALL BE DUCTILE IRON PIPE (CLASS 50) CONFORMING TO ANSI A21.51, WITH "PUSH-ON" JOINTS CONFORMING TO ANSI A21.11. PIPE SHALL BE COBALT-WORTH LINED TO CONFORM WITH ANSI A21.4. 2. POLYETHYLENE WRAP SHALL BE REQUIRED FOR ALL DUCTILE IRON WATER MAINS, FITTINGS, VALVE BOXES AND HYDRANT BARRIS, CONFORMING TO ANNA C-105 (3 MIL, BLACK, CLASS C). 3. ALL DUCTILE IRON WATER MAIN SHALL HAVE FOUR-INCH (4") MINIMUM GRANULAR BEDDING OF CRUSHED Limestone CA-7, EXTENDED TO 12" ABOVE THE TOP OF THE PIPE. COST OF BEDDING SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE OF THE PIPE. 4. ALL VALVE VAULTS SHALL BE PRECAST REINFORCED CONCRETE CONFORMING TO ASTM C-478. FRAMES AND COVERS SHALL BE MEDIAN R-1772 CONFORMING TO ASTM A84, OR APPROVED EQUAL WITH PREFORMED BITUMINOUS JOINTS AND A CONCENTRIC CORE. "DRETEX" EXTERIOR OR APPROVED EQUAL CHIMNEY SEALS SHALL BE INSTALLED. 5. ALL WATER MAINS SHALL HAVE A MINIMUM OF FIVE FEET-5 INCHES (5'-8") COVER MEASURED FROM THE TOP OF THE MAIN TO FINISHED GRADE, AND A MAXIMUM OF EIGHT FEET (8') COVER. 6. WATER MAIN FITTINGS SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE OF THE PIPE. 7. HYDRANTS SHALL BE MUELLER SUPER CENTERION 250 OR WATERLOUS W87-250 WITH BRONZE SEATS. HYDRANTS SHALL HAVE A 250 PSI WORKING RATED PRESSURE AND SHALL UTILIZE AN AIR RESERVOIR LUBRICATING SYSTEM. HYDRANTS SHALL BE TRAFFIC MODEL WITH UPPER AND LOWER BARRIS JOINED BY A BREAKABLE FLANGE AND STAINLESS STEEL BREAKAWAY COUPLING. ALL BURRED FASTENERS SHALL BE NON-FERROUS. HYDRANTS SHALL BE PAINTED SAFETY YELLOW (PITTSBURGH 90.330). CAPS TO BE SAFETY BLUE. 8. VALVES SHALL BE "LOW" RESILIENT WEDGE GATE VALVES CONFORMING TO ANNA C-5000R OR APPROVED EQUAL WITH MECHANICAL JOINTS CONFORMING TO ANNA C111, AND INSTALLED IN PRE-CAST CONCRETE VAULTS. 9. ALL FITTINGS, TEES, BENDS, ETC. NECESSARY FOR THE CONSTRUCTION OF THE WATER MAIN SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE FOR WATER MAIN. THE CONTRACTOR IS RESPONSIBLE TO FURNISH ALL FITTINGS, TEES, BENDS, ETC. NECESSARY TO COMPLETE THE WATER MAIN CONSTRUCTION IN ACCORDANCE WITH THE PLANS, WITH THE UNDERSTANDING THAT SUCH ITEMS MAY NOT BE LABELED ON THE PLANS. ALL DUCTILE IRON FITTINGS SHALL BE PROVIDED WITH SACRIFICIAL ZINC MITS "DURATON SYSTEMS LTD." OR EQUAL. 10. THRUST BLOCKING SHALL BE INSTALLED ON WATER MAINS AT ALL BENDS, TEES, ELBOWS, ETC. 11. SAMPLING TAPS SHALL BE PROVIDED WHERE REQUESTED BY LAKE COUNTY PUBLIC WORKS DEPARTMENT. 12. PRESSURE TESTING SHALL BE PERFORMED ON ALL NEW WATER MAIN AND SERVICES LARGER THAN TWO INCHES (2") IN CONFORMANCE WITH STANDARD SPECIFICATIONS. 13. DISINFECTION SHALL BE PERFORMED IN ACCORDANCE WITH LAKE COUNTY PUBLIC WORKS DEPARTMENT RESOURCES AND WATER MAIN DISINFECTION AND BACTERIOLOGICAL TESTING AND ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF PUBLIC WATER SUPPLIES DISTRIBUTION DISINFECTION. 	<p>STORM SEWER:</p> <ol style="list-style-type: none"> 1. STORM SEWER PIPES SHALL BE REINFORCED CONCRETE PIPE, ASTM C-76, CLASS AS INDICATED ON THE DRAWINGS, WITH MASTIC JOINTS. 2. FOUR-INCH (4") MINIMUM GRANULAR BEDDING OF CRUSHED Limestone CA-7, EXTENDED TO THE SPRINGLINE OF THE PIPE SHALL BE REQUIRED ON ALL R.C.P. SEWERS. COST OF BEDDING SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE OF THE PIPE. 3. ANY CONNECTIONS TO DISSIMILAR SEWERS SHALL BE MADE WITH "TERRNO" COUPLINGS WITH STAINLESS STEEL HARDWARE OR AN APPROVED EQUAL. <p>PAVING & CURBS</p> <ol style="list-style-type: none"> 1. ALL PAVING AND CURB AND GUTTER WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND PER THE MUNICIPALITY'S CONSTRUCTION STANDARDS. PROOF ROLLING SHALL BE DONE IN ACCORDANCE WITH THE VILLAGE OF VERNON HILLS DEVELOPMENT ORDINANCE, SECTION H. 2. SUBGRADE FOR PROPOSED PAVEMENT SHALL BE FINISHED TO WITHIN A TOLERANCE OF PLUS OR MINUS ONE-TENTH (0.1) OF A FOOT. 3. THE PROPOSED PAVEMENT SHALL CONSIST OF THE BASE COURSE, HOT MIX ASPHALT BINDER COURSE, AND HOT MIX ASPHALT SURFACE COURSE, SUPERPAVE 190, OF THE THICKNESS AND MATERIALS AS SPECIFIED ON THE PLANS. A BITUMINOUS MATERIAL PRIME COAT, AT THE RATE SPECIFIED IN THE SPECIFICATIONS, SHALL BE APPLIED TO THE BASE COURSE. PRIME COAT SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE BASE COURSE. 4. HOT MIX ASPHALT BINDER COURSE SHALL BE PLACED ONLY WHEN THE AMBIENT AIR TEMPERATURE IS AT LEAST 40° DEGREES FAHRENHEIT AND THE FORECAST CALLS FOR RISING TEMPERATURES. HOT MIX ASPHALT SURFACE COURSE SHALL BE PLACED ONLY WHEN THE AMBIENT AIR TEMPERATURE IS AT LEAST 45° DEGREES FAHRENHEIT AND THE FORECAST CALLS FOR RISING TEMPERATURES, UNLESS OTHERWISE APPROVED BY THE ENGINEER. 5. AFTER THE INSTALLATION OF THE BASE COURSE, ALL TRAFFIC SHALL BE KEPT OFF THE BASE UNTIL THE BINDER COURSE IS LAID. THE SURFACE SHALL BE PLACED AFTER THE BUILDING CONSTRUCTION IN THE AREA IS SUBSTANTIALLY COMPLETED AND AFTER THE BINDER COURSE HAS COMPLETED ONE WINTER SEASON. THE BINDER SHALL BE CLEARED, PRIME, AND THE SURFACE COURSE LAID. ALL DAMAGED AREAS IN THE BINDER, BASE OR CURB SHALL BE REPAIRED TO THE SATISFACTION OF THE MUNICIPALITY AND OWNER PRIOR TO LAYING THE SURFACE COURSE. PRIME COAT FOR THE BINDER COURSE SHALL ALSO BE CONSIDERED AS INCIDENTAL TO THE COST OF THE CONTRACT AND SHALL BE APPLIED TO THE BINDER AT A RATE OF 0.10 GALLONS PER SQUARE YARD. 6. COMBINATION CURB AND GUTTER SHALL BE OF THE TYPE AS SHOWN ON THE PLANS. THE CONCRETE SHALL HAVE AN AIR CONTENT OF NOT LESS THAN FIVE PERCENT (5%) NOR MORE THAN EIGHT PERCENT (8%) OF THE VOLUME OF CONCRETE. CONCRETE SHALL BE A MINIMUM SIX (6) BAG MIX AND SHALL DEVELOP A MINIMUM OF 3,500 PSI COMPRESSIVE STRENGTH AT FOURTEEN (14) DAYS. ALL CURBS AND GUTTER SHALL BE BROOM FINISHED. THE CONTRACTOR IS CAUTIONED TO REFER TO THE PLANS AND THE STREET CROSS-SECTION TO DETERMINE THE GUTTER FLAG THICKNESS AND THE APPROPRIATE BASE COURSE THICKNESS BENEATH THE CURB AND GUTTER. 7. THREE-QUARTER INCH (3/4") EXPANSION JOINTS CONSISTING OF 2-#6x24" LONG STEEL DOWEL BARS SHALL BE INSTALLED AT FIFTY FEET (50') INTERVALS AND AT ALL P.C.'S, P.T.'S, CURB RETURNS, FIVE FEET (5') EITHER SIDE OF STRUCTURES, AND AT THE END OF EACH POUR. ALTERNATE ENDS OF THE DOWEL BARS SHALL BE GROUT WITH FIVE INCH (5") SLEEVES. THREE-QUARTER INCH (3/4") THICK FIBER EXPANSION JOINTS SHALL BE USED IN EVERY CASE WHERE THE SIDEWALK COINCIDES WITH THE CURB AND GUTTER. CONSTRUCTION JOINTS SHALL BE PROVIDED AT FIFTEEN FEET (15') INTERVALS (MAXIMUM) IN THE CURB. THE COST OF THESE JOINTS SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE OF THE CURB AND GUTTER. 8. CURING AND PROTECTION OF ALL EXPOSED CONCRETE SURFACES SHALL BE IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CURRENT EDITION. 9. TESTING OF THE SUB-BASE, BASE COURSE, BINDER COURSE, SURFACE COURSE AND CONCRETE WORK SHALL BE REQUIRED IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS ADOPTED JANUARY 1, 2007, AND IN ACCORDANCE WITH THE SPECIFIC REQUIREMENTS OF THE VILLAGE OF VERNON HILLS. 10. ALL PAVEMENT INTERSECTION FROM ARE TO BE AS SHOWN ON PLANS. 	
<p>SCALE IN FEET</p> <p>SOLE PROPERTY OF GREENGARD, INC. AND NO REPRODUCTION OR USE IN WHOLE OR PART WITHOUT WRITTEN PERMISSION OF GREENGARD, INC.</p> <p>CAS 2-20-09 DATE: 2-20-09</p>	<p>ADDED PAVING AND CURB SPECIFICATIONS</p> <p>REVISIONS</p> <p>DATE: 2-20-09</p>	<p>DESIGNED BY: CAS DATE: 1-28-09</p> <p>CHECKED BY: TCT DATE: 1-28-09</p> <p>APPROVED BY: DRF DATE: 1-28-09</p>	<p>GREENGARD, INC. Engineers • Surveyors • Planners</p> <p>111 Barclay Blvd., Suite 310, Lincolnshire, Illinois 60069-3623</p> <p>PHONE: 817-634-3863 E-MAIL: 231@GREENGARDINC.COM</p> <p>FAX: 817-634-0687 ILL. REGISTRATION NO. 184-000995</p> <p>SCALE: NONE</p> <p>DRAWING NO.: 53140</p> <p>SHEET: 7 of 8</p>	<p>ZF INDUSTRIES - 777 HICKORY HILL DRIVE</p> <p>PROJECT SPECIFICATIONS</p>



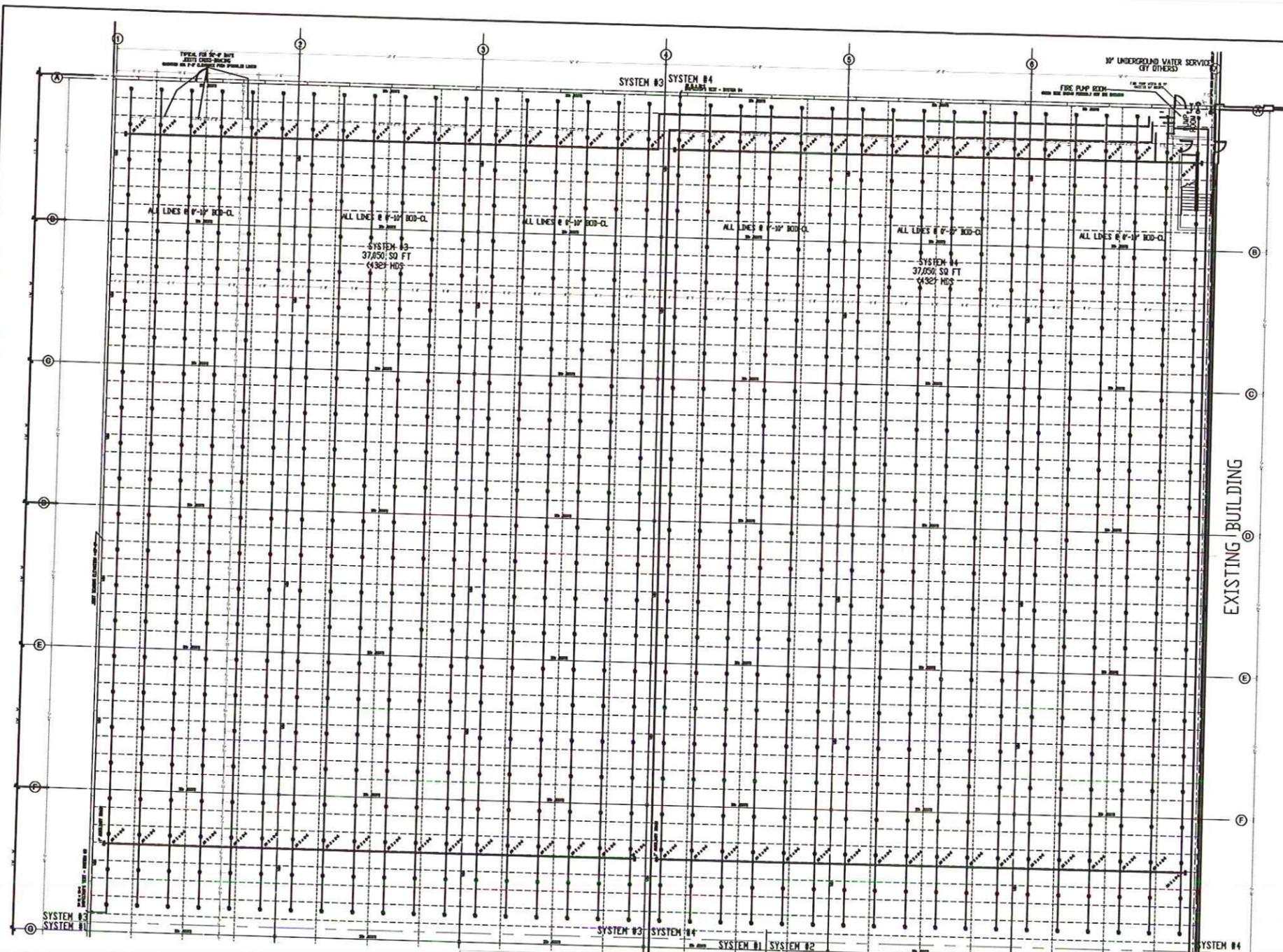
ITEMS INCLUDED IN THIS CONTRACT

VALVE & BOX	2'-0" INLET TYPE 'A'	
4" SANITARY RISER	2'-0" CATCH BASIN TYPE 'A'	
6" SANITARY RISER	2'-0" MANHOLE TYPE 'A'	
HEADWALL	4'-0" CATCH BASIN TYPE 'A'	
ALTERNATE TOP SLAB	5'-0" CATCH BASIN TYPE 'A'	
ALTERNATE BOTTOM SLAB	4'-0" MANHOLE TYPE 'A'	SANITARY STORM
PIPE BEDDING (STORM)	5'-0" MANHOLE TYPE 'A'	SANITARY STORM
PIPE BEDDING (SANITARY)	6'-0" MANHOLE TYPE 'A'	SANITARY STORM
PIPE BEDDING (WATER)	4'-0" MANHOLE TYPE 'D'	
FLARED END SECTION	5'-0" DROP MANHOLE TYPE 'D'	
FIRE HYDRANT	4'-0" VALVE & WALK	
WATER MAIN THRUST BLOCK	5'-0" PRESSURE TAP IN WALK	
STREET LIGHT	6'-0" VALVE & WALK	
TWO INLET		

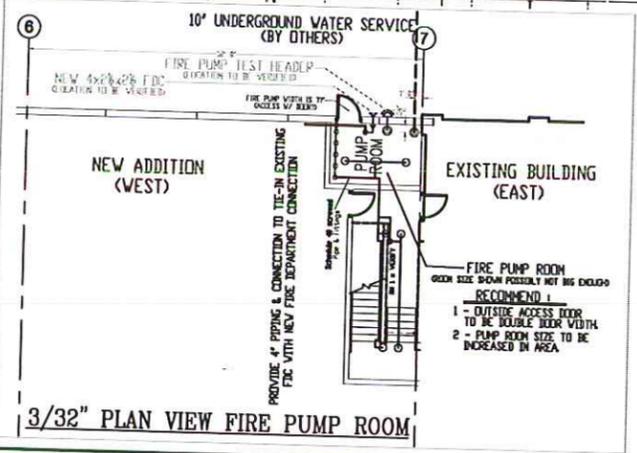
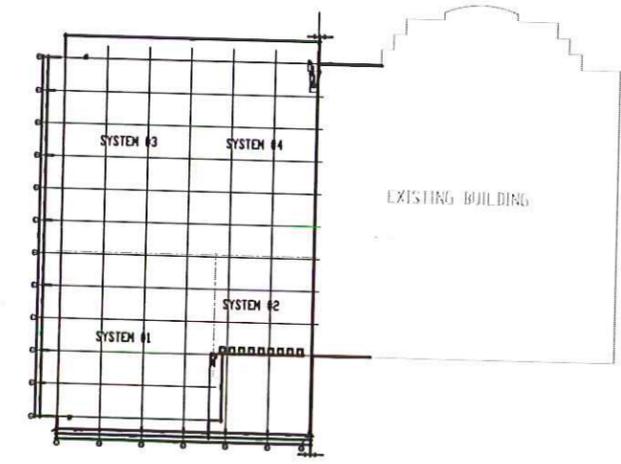


- #### GENERAL NOTES:
- SEE PLAN & PROFILE SHEETS FOR LOCATION, DIAMETER & INVERTS OF SEWER MAIN. SEE LAYOUT SHEET FOR LOCATION & DIAMETER OF WATERMAIN.
 - PRECAST SECTIONS SHALL BE TONGUE AND GROOVE AND CONFORM TO SPECIFICATIONS FOR MANHOLES ASTM DESIGNATION C-178.
 - PRECAST MANHOLE JOINTS SHALL BE CONSTRUCTED WITH BITUMINOUS MASTIC.
 - OFFSET CONES SHALL BE USED WHERE MANHOLE OR CATCH BASIN IS 6'-0" OR GREATER IN DEPTH.
 - FRAMES, COVERS & MANHOLE STEPS TO BE CAST IRON BY NEEDHAM FOUNDRY COMPANY, OR APPROVED EQUAL. (PRICE TO BE INCLUDED IN UNIT COST OF STRUCTURE)
- #### CASTING LIST
- VALVE & WALK:
 - IN PAVED AREAS - NEEDHAM R-1712-FD W/ "WATER" CAST INTO LID.
 - IN NON-PAVED AREAS - NEEDHAM R-1772 W/ "STORM" CAST INTO LID.
 - STORM STRUCTURES:
 - SOLID LIDS
 - IN PAVED AREAS - NEEDHAM R-1712 W/ "STORM" CAST INTO LID.
 - IN NON-PAVED AREAS - NEEDHAM R-1772 W/ "STORM" CAST INTO LID.
 - GRADED LIDS - NEEDHAM R-2504-C.
 - CURB GRATED LIDS - NEEDHAM R-3281-AL OR R3281-A.
 - DEPRESSED CURB LIDS - NEEDHAM R-3205-A.

M	C	A	N	A	N	C	H	O	L	E	S	B	A	S	I	D	S	C	T	MATERIALS FOR WALLS	d (DIAMETER OF SANITARY MAIN)					
																					6"	8"	10"	12"	15"	
2'-0"																					PRECAST REINFORCED CONCRETE RISERS					
3'-0"																					PRECAST REINFORCED CONCRETE RISERS					
4'-0"																					PRECAST REINFORCED CONCRETE RISERS					
5'-0"																					PRECAST REINFORCED CONCRETE RISERS					
6'-0"																					PRECAST REINFORCED CONCRETE RISERS					



SCOPE OF WORK		GENERAL NOTES	
1. Project Description: Provide new electric fire pump and (4) wet ESFR sprinkler systems for new addition in accordance with NFPA - 13 & NFPA - 20.		1. Feed Main Piping to be: Schedule 10 Pipe	
2. Building Construction: Non-combustible steel joists on steel I-beams.		2. Cross Main Piping to be: Schedule 10 Pipe	
3. Building Height: Max 45'-0" Number of Stories: 1		3. Branch Line Piping to be: Schedule 10 Pipe (UNO)	
4. Number of Wet Systems: 4		4. Feed Main Fittings to be: Grooved	
5. Number of Dry Systems: N/A		5. Cross Main Fittings to be: Grooved	
6. Number of Special Systems: N/A		6. Branch Line Fittings to be: Grooved (UNO)	
7. Codes Used in System(s) Design: NFPA-13 & NFPA-20		7. () Indicates Hydraulic Reference Point	
8. Total Sprinklers on the Job: 1503		8. (e m) Indicates C.L. of Pipe Elev. Below Top of Steel/Bottom of Slab	
9. Type of Backflow Preventer: RPZ		9. (r-s) Indicates C.L. of Pipe Elev. Above Finished Floor	
10. Size of Water Main: 10" Size of Domestic Water: N/A		10. (f-s) Indicates Elev. of Top of Steel (Deck/Slab) Above Finished Floor	
		11. (C-H) Indicates Ceiling Height Above Finished Floor	
		12. () Indicates the Pipe Hanger Locations	
		13. WBO Indicates Wiring by Others	
		14. All Piping to be Supported in Accordance with Applicable NFPA 13 Rules and Regulations.	
		15. All Piping and Equipment will be Installed in Accordance with Applicable NFPA 13 Rules and Regulations.	
		16. All Electrical Wiring of Fire Monitoring Devices or Related Equipment to be Done by Others. (WBO)	
		17. All System Control Valves will be Provided with an Electronic Tamper Switch. (WBO)	
		18. Auxiliary Drain Connections will be Provided for Trapped Sections of Piping in Accordance with Applicable NFPA 13 Rules and Regulations.	
		19. A Spare Sprinkler Cabinet will be Provided and Stocked as Required by Applicable NFPA 13 Rules and Regulations.	
		20. Owner is to Provide Adequate Heat to Prevent the Water, in the Wet Sprinkler System's, from Freezing.	
		21. All New Piping will be Tested Per NFPA 13. USFP Field Personnel are to Notify the Fire Prevention Bureau 48 Hours Prior to Any Testing.	
		22. Owner(s) Structural Engineers are to Verify the Building(s) Structure(s) are Capable of Supporting the Additional Weight Load Required for the Fire Sprinkler System(s).	



PLEASE SEE FP-2 FOR ADDITIONAL NOTES

SPRINKLER LEGEND											
SYL	MAKE	MODEL	TYPE	TEMP. (F)	THD.	OP.	K	FINISH	NOTE	S.L.K.	TOTAL
⊙	TYCO	ESFR-25	ESFR PENDENT	155 F	1"		25.2	BRASS	ESFR	T19226	864
○	WONG	M	UPRIGHT	155 F	1/2"	1/2"	5.5	BRASS	SR	TK100	6

APPROVAL STAMP

PERMIT DRAWING ONLY

SEAL FOR PERMIT

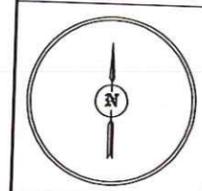
ZF INDUSTRIES
777 HOKORY HILL DRIVE
VERNON HILL, IL

DATE: 01-12-09
SCALE: 1/16" = 1'-0"
JOB # 103763

DWG NO: 0-25-09
L. SIXTH LEASE F
PSC 0032
DATE: 01-12-09
SCALE: 1/16" = 1'-0"
JOB # 103763

United States Fire Protection of IL, Inc.
28427 North Ballard, Unit H
Lake Forest, IL 60045
Phone: (815) 848-2259 Fax: (815) 848-2266

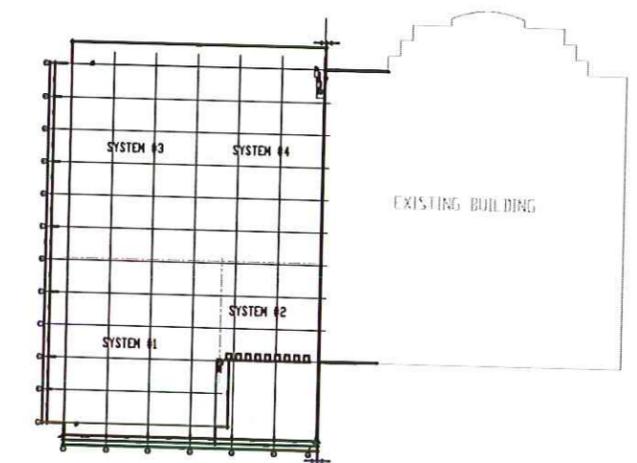
DRAWN BY: RAM
CHECKED BY: RAM
DATE: 01-12-09
SHEET NO: 2
PP-1 OF 2





EXISTING BUILDING

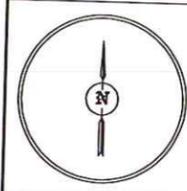
- ### GENERAL NOTES
1. Feed Main Piping to be: Schedule 10 Pipe
 2. Cross Main Piping to be: Schedule 10 Pipe
 3. Branch Line Piping to be: Schedule 10 Pipe (UNO)
 4. Feed Main Fittings to be: Grooved
 5. Cross Main Fittings to be: Grooved
 6. Branch Line Fittings to be: Grooved (UNO)
 7. \bigcirc Indicates Hydraulic Reference Point
 8. $\{ \}$ Indicates C.L. of Pipe Elev. Below Top of Steel/Bottom of Slab
 9. $\{ \}$ Indicates C.L. of Pipe Elev. Above Finished Floor
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 15. All Piping and Equipment will be Installed in Accordance with Applicable NFPA 13 Rules and Regulations.
 16. All Electrical Wiring of Fire Monitoring Devices or Related Equipment to be Done by Others. (WBO)
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 19. A Spare Sprinkler Cabinet will be Provided and Stocked as Required by Applicable NFPA 13 Rules and Regulations.
 20. Owner is to Provide Adequate Heat to Prevent the Water, in the Wet Sprinkler System's, from Freezing.
 21. All New Piping will be Tested Per NFPA 13. USFP Field Personnel are to Notify the Fire Prevention Bureau 48 Hours Prior to Any Testing.
 22. Owner(s) Structural Engineers are to Verify the Building(s) Structure(s) are Capable of Supporting the Additional Weight Load Required for the Fire Sprinkler System(s).



KEY PLAN

ADDITIONAL NOTES

- ENTIRE ADDITION DESIGNED FOR STORAGE APPLICATION (CLASS IV COMMODITY)
- ALL MECHANICAL TRADES TO VERIFY MINIMUM 2'-0" CLEARANCE TO ESFR SPRINKLERS
- ALL LIGHTS AND ELECTRICAL EQUIP. TO VERIFY MINIMUM 2'-0" CLEARANCE TO ESFR SPRINKLERS (OBSTRUCTIONS TO ESFR SPRINKLERS NEED TO BE ADDRESSED ASAP)
- ANY OBSTRUCTIONS EXCEEDING 2'-0" IN WIDTH WILL NEED ADDITIONAL ESFR PROTECTION BELOW (UNLESS SEPERATION DISTANCES MEET NFPA-13 CRITERIA)
- PIPE SIZING TO BE DETERMINED ONCE A NEW FLOW TEST IS PROVIDED
- 1 1/2" FIRE HOSE STATIONS AND/OR 2 1/2" FHV TO BE PROVIDED IN ACCORDANCE w/ NFPA 13 & VERNON HILLS FPB WHEN APPROVED STORAGE RACKING LAYOUT IS ISSUED.
- PROVIDE ADDITIONAL SPRINKLERS UNDER ROLL-BACK OVERHEAD DOORS (VERIFY WHEN ADDITIONAL DETAILS ARE PROVIDED)
- MAX. ROOF HEIGHT = 45'-0"
- MAX. STORAGE HEIGHT = 40'-0"
- 1ST FLR FINISHED SLAB = 0'-0"
- STRUCTURAL ROOF LOADS NEED TO BE CALCULATED TO SUPPORT SPRINKLER PIPE UP TO AND INCLUDING 8'.



APPROVAL STAMP

PERMIT DRAWING ONLY

PROJECT: **ZF INDUSTRIES**
777 HOKORY HILLS DRIVE
VERNON HILLS, IL

DATE: 01-12-09
SCALE: 1/16" = 1'-0"
JOB #: 103783

United States Fire Protection of Il., Inc.
28427 North Ballard, Unit H
Lake Forest, IL 60045
Phone (815) 814-0000 Fax (815) 814-0000

DATE: 01-27-09
IL STATE LICENSE #: FSC 0032
DRAWN BY: RAM
CHECKED BY: RAM
SHEET NO: FP-2 OF 2

SPRINKLER LEGEND											
SYM	MAKE	MODEL	TYPE	TEMP. (F)	THD.	OFF.	K	FINISH	NOTE	SUM.	TOTAL
⊙	TYCO	ESFR-25	ESFR PENDENT	155 F	1"		25.2	BRASS	ESFR	T19226	633

Drawn By: RAM	THIS SHEET: 633
Sales Person: RP	JOB TOTAL: 1503

Department of Community Development

**TECHNICAL REVIEW COMMENTS #1
FOR
ZF INDUSTRIES ADDITION
February 17, 2009**

To the Petitioner: This project requires written responses to all technical review comments, including revisions to submitted documents. If you provide an e-mail address these comments can be sent via e-mail. Your written responses should be placed underneath our original comments and revised plans should be submitted reflecting changes requested below. Staff will review the submittal and your responses and schedule this project to the appropriate Commissions and the Village Board, when appropriate.

Response by the petitioner is in bold type under the comments.

General Comments

Based on the comments below, you have completed technical review. You should update your final plans pursuant to these comments and submit revised plans to the Village for final approvals. At this time, you may also submit plans for building permit review.

Building Division Comments

FROM: Chuck Kamminga, Plans Examiner
SUBJECT: Technical Review Comments #1

The Building Division has reviewed the above referenced project in accordance with the Zoning Code, Sign Code, Building code (2006 IBC) and related village ordinances. The responses below are based solely on the information submitted.

The property is currently zoned B-P, Business Park the zoning regulations are per the annexation agreement for Corporate Woods Subdivision exhibit F. The Building Code review is limited and does not address items related to the structural integrity nor the mechanical, electric, and plumbing systems. A detailed review of the building and its systems will be performed at the time of permit. Please refer to the following comments:

I. ADMINISTRATION:

- The applicant is required to submit plans and obtain a permit for water and sewer connections from the Lake County Public Works Department prior to issuance of a building permit. Please contact Lake County for fees and requirements (847-680-1600).

RECEIVED

FEB 26 2009

COMMUNITY DEVELOPMENT
DEPARTMENT

We are not proposing any new signage in conjunction with this addition.

V. ARCHITECTURAL:

- Roof top equipment is required to be screened from all sides. Please indicate method of screening including type and color of materials.

The HVAC for the addition is to be provided by a gas fired air rotational unit. The unit will be mounted on the floor inside the building. It will be interlinked to electrically operated outside air intake louvers to allow fresh air to enter the building. There will be five roof mounted exhaust fans to equalize the pressure in the building. No other mechanical equipment is to be roof mounted. The exhaust fans are less than 36" above the roof. Therefore, we are not proposing any screening for roof top equipment.

VI. BUILDING CODE:

- The buildings shall be designed in accordance with the 2006 International Building Code, Mechanical Code, Fire Code and Energy Conservation Code. Plumbing shall be in accordance with the 2004 Illinois State Plumbing Code. Electric shall be in accordance with the 2005 NEC. All Site and building elements shall be in accordance with the 1997 Illinois Accessibility Code.

The building will be designed in accordance with the appropriate adopted building codes of Vernon Hills.

- The maximum travel distance to an exit within a building use group F-1 and has a NFPA 13 sprinkler system is 250 feet. Indicate the maximum travel distances to the exits on the permit drawings. If required provide additional exit doors.

The building permit drawings will include an exiting plan indicating the travel distance to the exits.

Engineering Division Comments

From: David H. Brown, PE, Village Engineer

SUBJECT: Technical Review #1

Re: Landscape & Engineering Technical Review for ZF Industries Expansion #1
777 Hickory Hills

The following technical review comments are provided based on the review of the Landscape Plan dated 1/12/09 prepared by ILT Vignocchi and Engineering Plans dated 1/28/09 prepared by Greengard Inc.

Engineering Review

A Watershed Development Permit will be required for this project. The petitioner has submitted storm sewer calculations, but the primary stormwater issue is demonstrating that this project is in compliance with the current Watershed Development Ordinance. The original stormwater approvals anticipated less impervious surface and the petitioner therefore must demonstrate that this project meets the "Grandfather provisions" or additive detention must be provided. *SPECIAL ATTENTION TO THIS COMMENT IS REQUESTED AS THIS WILL IMPACT THE APPROVAL OF THIS PROJECT.*

The civil engineer, Greengard, Inc., met with the Village Engineer and received the stormwater calculations for the existing retention area on February 19. Greengard, Inc. is performing an analysis of the calculations to verify the adequacy of the existing retention area. Based on the analysis, Greengard will address the stormwater requirement and a final determination will be made by the civil engineer and the Village Engineer.

Please clarify that the downspouts will be connected to the storm sewer system.

The roof drains will be connected to the storm sewer system. The connection will take place to the south of the addition approximately 21'-0" west of the truck dock area.

The original approval included the proposed parking south of the expansion but did not anticipate the expansion to be south of the existing building. I have no objections to the extra ~20,000 sq ft southwesterly expansion, but this creates a potential conflict between the truck drivers and vehicles' exiting the parking stalls. The five (5) westernmost parking stalls at the rear of the addition are to be removed or relocated. The parking would be relocated adjacent to the existing parking along the southerly lot line.

The drawings have been revised to eliminate the five westernmost parking stalls to the south of the addition.

You are encouraged to consider landbanking a portion of the new parking lot. Based on the calculations provide, you have a significant surplus of parking on site.

The building owner has decided not to landbank a portion of the new parking lot.

Please provide a gated emergency vehicle connection along the south property line which will align with the future road on the former Kelly's Camp property. The property is now known as The Oaks of Vernon Hills. Please contact my office to coordinate the location of this connection.

The drawings have been revised to indicate the gated vehicle connection at the southwest corner of the site. The connection aligns with the west drive to minimize potential turns by emergency vehicles. The drawings have been revised to indicate a depressed curb at this location. Also, the drawings include that the final location of this connection is to be coordinated with the Village Engineer.

Staff has been advised that the project is to meet current ordinance based on the expiry of the original development agreements. The new pavement cross sections will need to be revised.

Revise the Heavy Duty Pavement Detail to meet minimum Village Standards as follows:

- 1 ½" HMA Surface Course, Mix C, N50
- 2 ½" HMA Binder Course, IL-19.0, N50
- 12" CA6 Crushed Limestone

Revise the Parking Lot Pavement Detail to meet minimum Village Standards as follows:

- 1 ½" HMA Surface Course, Mix C, N50
- 2 ¼" HMA Binder Course, IL-19.0, N50
- 10" CA6 Crushed Limestone

Revise the Concrete Pavement Detail to meet minimum Village Standards as follows:

- 6" x 6" - W2.9 x W2.9 W.W.F.
- 4" CA 6 Crushed Limestone

The drawings have been revised to indicate compliance with the current ordinance for the new pavement cross sections.

The existing parking lot pavement is showing distress, is in a deteriorated condition and needs to be replaced. Construction activity around the building expansion will only further deteriorate the existing pavement. See attached photos.

The building owner is aware of the condition of the existing parking lot pavement and is committed to making the necessary repairs. However, the building owner will address this issue as a maintenance and operations matter rather than a construction cost.

The existing truck lane on the west side is deteriorated and with the open cut down the middle to install a water main, the entire truck lane shall be replaced from Hickory Hill Drive to meet the Heavy Duty Pavement section.

The civil engineering drawings have been revised to indicate the entire west drive is to be replaced with the Village standard heavy duty pavement.

The proposed photometrics are to transition onto the existing parking lot and along the truck drive to demonstrate that the minimum lighting levels are maintained.

The photometric plan has been revised to indicate the lighting level of the proposed light fixtures extended onto the existing parking lot and truck drive.

A copy of the Village's Parking Lot Maintenance Ordinance is enclosed for the petitioner's use along with photos showing parking lot deterioration, etc.

The Village's Parking Lot Maintenance Ordinance has been forwarded to the building owner to assist with their maintenance efforts.

Show where temporary stockpiles will be located, construction access, and staging area.

There are no temporary stockpiles anticipated outside of the building addition footprint. The construction is scheduled to haul the topsoil and trees offsite as they are cleared. The civil engineering drawings have been revised to indicate the construction access entry is to be the existing western access on Hickory Hill Drive. Construction vehicle parking is to be in the existing parking lot. The staging area is to be in the building addition footprint.

An itemized cost estimate for all Engineering and Landscape work is required.

The cost estimate for the site improvements will be submitted directly to the Village Engineer by February 25.

Vernon Hills Police Department Comments

From: Jim Levicki, Police Officer
Subject: Technical Review #1

My comments are as follows:

1. **Glass Break Alarm System.** This type of alarm system is highly suggested for large business parks due to the amount and size of glass windows. These windows provide a large number of potential entry points.

Please note that there are no windows planned as part of this addition. We will advise the tenant of your recommendation for their existing building.

2. **Access Control System.** With the size of the building, employees and visitor entrances need to be controlled and/or monitored to insure unauthorized people cannot get into the building. Along the same lines, exterior doors should be limited to exit-only access if at all possible around the building.

We will incorporate exit-only hardware on the doors in the addition as deemed appropriate by the tenant and owner.

3. **Shrubbery and Plants.** Landscaping should be kept to less than three feet in height.

The Landscape Plan does not propose any shrubs at the addition, only trees.

4. **Lighting.** The nature of this expansion will not affect the parking lots; therefore it does not necessitate any additional exterior light except for around exit doors (if applicable).

Please refer to the Site Lighting Plan, Sheet PHOTO, that indicates the proposed new parking lot and driveway lighting.

Please comments as to how these items will be addressed.

Landscape Architect Comments

From: Tom Brettmann, Engineering/Landscaping Technician

Re: Technical Review #1

The following technical review comments are provided based on the review of the Landscape Plan dated 1/12/09 prepared by ILT Vignocchi and Engineering Plans dated 1/28/09 prepared by Greengard Inc.

Landscape Review

The proposed expansion is not consistent with the 1992 originally approved area for expansion. The proposed addition will encroach into an area of approximately 82' x 313' at the south end where a native stand of trees exist. On the 1992 plan set it shows which trees were to be removed with the future expansion and which trees were to be saved.

The Landscape Plan from 1992 indicates a graphic representation of existing trees. There is a note on the plan that reads "Existing trees within building footprint to be removed during expansion of entire building." The trees are being removed as part of this addition.

The 1992 documents also show a 58.51' setback from the west property line to the building, the proposed addition is approximately 43' from the west property line.

Please refer to the comments by the Village Plans Examiner in the Technical Review regarding the required setbacks.

We request the petitioner place this note on the plan, "Landscape maintenance and plant material will be added or replaced as necessary to bring the landscaping around the existing site into compliance with the original site landscape plan." The Villages Landscape Maintenance Ordinance is attached for the petitioner's use. A copy of the original approved landscape plan is attached.

The Landscape Plan has been revised to include the note above.

Place a note on the plans, "All non-native invasive species shall be removed from the native buffer located on the south side of the building. All native trees remaining shall be crown cleaned by a certified arborist."

The Landscape Plan has been revised to include the note above.

Fire Department Comments

From Jack Schuett, Director of Fire Prevention – Lincolnshire Riverwoods Fire Protection District – Technical Review Comments #1

We are in receipt of the site plans for the above referenced project and have the following comments:

1. The Village has adopted 2006 IBC/IFC not 2000 as indicated.

The building will be designed in accordance with the appropriate adopted building codes of Vernon Hills.

2. Will the expansion be considered as one building or two separate buildings?

The expansion and existing building are being proposed as one unlimited area building of Type IIB construction.

3. Hydrant #4 is being relocated. The new location appears to be behind a new

retaining wall possibly creating limited access. Provide better access to the hydrant than what is proposed.

Fire hydrant #4 is being relocated from near the new retaining wall to approximately 70'-0" to the southeast of its current location. This is indicated on Sheet 5 of 8 of the civil engineering drawings.

Lake County Public Works Department Comments

Arthur P. Malm, P.E., Principal Civil Engineer – Tech Review Comments #1

Subject: ZF Industries Expansion #1; Our PW 2009.016

We have received your memorandum of January 30th requesting comments concerning the above project. Our comments are as follows:

1. We require a sprinkler head count for the proposed facility. The plan set received does not have that information.

We have included sprinkler drawings, FP-1 and FP-2, in our resubmittal. The total number of sprinkler heads is indicated on Sheet FP-1.

2. The plan set received appears to show a second 8" water service entrance to the facility will be constructed. Details concerning that work will be necessary in order for us to review any water metering and fire protection system plumbing design changes.

The civil engineering drawings indicate a new 10" water service entering the addition on the north wall approximately 16'-0" west of the existing building. This water service is for the sprinkler system for the addition. The details of the water metering will be located on the construction drawings.

3. The planned use of the new addition is not clear from the submittal. While this appears to be warehouse only we would like the proposed use confirmed. We would also like the use of the existing facility confirmed. Our latest file correspondence indicated all non domestic process wastewater flows are hauled off site for disposal and do not enter the sanitary sewer. We will need to be notified of any changes.

The proposed use of the addition is warehouse. The use of the existing building is not changing. The non domestic process wastewater flows are not changing.

4. A specification and detail of the proposed tapping valve and sleeve to be used on the existing water main needs to be provided.

The Pressure Connection Detail on Sheet 8 of 8 of the civil engineering drawings has been revised to indicate both the tapping valve and sleeve.