ELECTRIC SLIDE GATE DETAILS ELECTRIC SLIDE GATE, ELECTRICAL ONE LINE DIAGRAM ELECTRICAL LEGEND AND ABBREVIATIONS KEYPAD UNIT, BOLLARD & GATE OPERATOR DETAILS ELECTRIC SLIDE GATE, ELECTRICAL SITE PLAN 24' CATE DETAILS ARCHITECTURAL FENCE DETAILS - BID B CHAIN LINK FENCE DETAILS - BID A FENCING PLAN - TERMINAL AND HANGAR AREA FENCING PLAN FENCING PLAN AND COORDINATES SITE PLAN AND GENERAL AND SAFETY NOTES COVER SHEET SIDEWALK PLAN AND DETAILS FENCE REMOVAL PLAN SUMMARY OF QUANTITIES 訓

ITEM NO: 3A LETTING DATE: APRIL 23, 2010

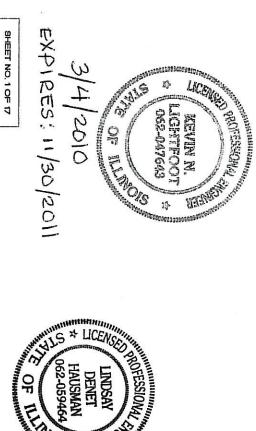
BO001 TOTAL SHEETS = 17

CONSTRUCTION PLANS

BOLINGBROOK'S CLOW INTERNATIONAL AIRPORT (1C5)
BOLINGBROOK, WILL COUNTY, ILLINOIS

VICINITY MAP

AIP PROJECT NO. 3-17-0135-B2 IDA PROJECT NO. 1C5-3995



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THESE CONSTRUCTION PLANS HELY UPON THE BPECIAL PROVISIONS AND THE SPECEFICATIONS TO PROVIDE FOR A COMPLETE DESCRIPTION OF THE WORK AND CONSTRUCTION REQUIREMENTS. THE PLANS SHALL ONLY BE USED IN COMBINATION WITH ALL CONTRACT DOCUMENTS.

VOTICE TO CONTRACTORS AND BIDDERS



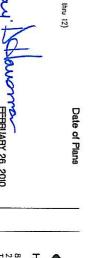
Issue/Description

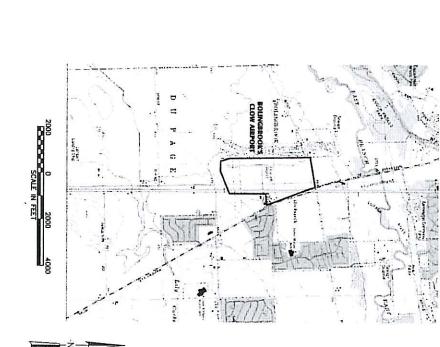
Sheets Changed

Date

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815 Commerce Drive, Suite 200 Ook Brook, Illinois 60523 Telephone: 630.990.3800 Fax: 630.990.3801 HANSON PROFESSIONAL SERVICES HANSON <u>N</u>



INDEX OF SHEETS

PERIMETER FENCING INSTALL

LINDSAY

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VAUSMAN

2-059464

2-059464

CONTROLLED

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11 30 2011

SUMMARY OF QUANTITIES

BASE BID

| Item No. | Description | Unit | As Bid | Record Paid |
|-------------------|---------------------------------------|-------------|---------|-------------|
| AR108051 | AR108051 Power Cable in Unit Duct | Linear Feet | 395.0 | |
| AR109200 | AR109200 Install Electrical Equipment | Lump Sum | 1.0 | |
| AR110011 | AR110011 1" Directional Bore | Linear Feet | 32.0 | |
| AR110014 | AR110014 4" Directional Bore | Linear Feet | 36.0 | |
| AR150510 | AR150510 Engineer's Field Office | Lunp Sum | 1.0 | |
| AR208606 | AR208606 6" Aggregate Base Course | Square Yard | 187.0 | |
| AR501604 | AR501604 4" PCC Sidewalk | Square Feet | 1,675.0 | |
| AR800991 | AR800991 Remove Fence | Linear Feet | 430.0 | |
| AR901510 Seeding | Seeding | Acre | 2.0 | |
| AR904510 Sodding | | Square Yard | 323.0 | |
| AR908510 Mulching | | Acre | 2.0 | |

BID A

| Item No. | Description | Unit | As Bid | Record Paid |
|----------|--|-------------|---------|-------------|
| AR800951 | AR800951 Electric Gate - 24'- Bid A | Each | 1.0 | |
| AR800953 | AR800953 Class E Fence 10' wl 2' Buried - Bid A | Linear Feet | 8,350.0 | |
| AR800954 | AR800954 44' (Double 22') Sliding Gate - Bid A | Each | 7.0 | |
| AR800955 | AR800955 24' Sliding Gate - Bid A | Each | 6.0 | |
| AR800956 | AR800956 10' (Double 5') Pedestrian Gate - Bid A | Each | 2.0 | |
| AR800957 | AR800957 5' Pedestrian Gate - Bid A | Each | 5.0 | |

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| Item No. | Description | Unit | As Bid | Record Paid |
|----------|--|-------------|---------|-------------|
| AR800952 | AR800952 Electric Gate - 24'- Bid B | Each | 1.0 | |
| AR800958 | AR800958 Arch. Fence 8'- Bid B | Linear Feet | 8,350.0 | |
| AR800959 | AR800959 44' (Double 22') Arch. Sliding Gate - Bid B | Each | 7.0 | |
| AR800960 | AR800960 24' Arch. Sliding Gate - Bid B | Each | 6.0 | |
| AR800969 | AR800969 10' (Double 5') Arch. Pedestrian Gate - Bid B | Each | 2.0 | |
| AR800970 | AR800970 5' Arch. Pedestrian Gate - Bid B | Each | 5.0 | |

| PERIMETER FENCE |
|-----------------|
| INSTALLATION |

| SUMMARY | OF OU | ANTITIES |
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| Date | 01/28/10 | |
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Bolingbrook a place to

| Village of Bolingbrook, Illino | s |
|--------------------------------|---|
| 375 West Briarcliff Road | |
| Bolingbrook, Illinois 60440 | |
| Telephone: 630.226.8400 | |
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Hanson Professional Services Inc. 815 Commerce Drive Suite 200 Oak Brook, Illinois 60523

LAYOUT DRAWN REVIEWED

01/28/10 01/28/10 xx/xx/xx LDH LDH RMH

IL. PROJ.: 1C5-3995

A.I.P. PROJ.: 3-17-013

THE CONTRACTOR SHALL PROVIDE EQUIPMENT STORAGE AND PARKING AREAS FOR HIS OWN USE AT THE LOCATIONS SHOWN ON THIS SHEET. THE CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN THE ACCESS ROADS AND STORAGE AREA DURING CONSTRUCTION AND TO RESTORE THE AREAS AT PROJECT COMPLETION TO CONDITIONS SUITABLE TO THE AIRPORT MANAGER AN THE RESIDENT ENGINEER. THE COST OF PROVIDING, MAINTAINING AND RESTORING THE TEMPORARY FACILITIES IS INCIDENTAL TO THE CONTRACT.

ITIES IS INCIDENTAL TO

:\08JOBS\00844\08A0180\DRAWINGS\SHEETS\03-SITE PLAN & GEN NOTES.DWG

CONTRACTOR'S ACCESS TO THE PROJECT WHEN ON AIRPORT PROPERTY IS SHOWN ON THIS SHEET. CONTRACTOR'S ACCESS TO THE AIRPORT ITSELF IS TO BE PROVIDED BY PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR IS TO SECURE ALL NECESSARY PERMITS FOR THE USE OF AIRY PUBLIC RIGHTS-OF-WAY AND IS TO MAINTAIN TRAFFIC ON THESE PUBLIC RIGHTS AT ALL TIMES, WITH THE COSTS OF PERMITTING, CLEANING AND REPAIRING OF PAVEMENT DAMAGED BY CONTRACTOR'S ACTIVITIES INCIDENTAL TO THE CONTRACT. USE OF AND REPAIRS TO ANY PUBLIC FACILITIES ARE TO BE COMPLETED TO THE SATISFACTION OF THE FACILITYS OWNER. THE CONTRACTOR IS TO PROVIDE TEMPORARY CONSTRUCTION ROADS WITHIN THE CONSTRUCTION LIMIT LINES AS MAY BE REQUIRED BY HIS ACTIVITIES AT HIS OWN EXPENSE. AND DISCRETION, SUBJECT TO THE APPROVAL OF THE RESIDENT ENGINEER. HEAVY VEHICLES SHALL NOT CROSS EXISTING OR NEW PAYEMENT SURFACES EXCEPT AS APPROVED BY THE AIRPORT MANAGER AND THE RESIDENT ENGINEER. ANY DAMAGET TO PAVEMENTS THAT MAY OCCUR BY THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE AIRPORT MANAGER AND THE RESIDENT ENGINEER. CONTRACTOR'S ACCESS AND TEMPORARY FACILITIES IN ADDITION WHEN CONDITIONS DICTATE, OR AS DETERMINED BY THE AIRPORT MANAGER OR RESIDENT ENGINEER, THE CONTRACTOR SHALL USE A PICK-UP TYPE SWEEPER IN ALL ACTIVE PAVEMENT AREAS AND ROADS USED AS HAUL ROUTES. THE CONTRACTOR WILL BE REQUIRED TO HAVE A SWEEPER AVAILABLE FOR USE AT ALL TIMES, AND THIS COST SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

PROJECT DESCRIPTION THIS PROJECT IS TO INSTALL PERIMETER FENCING AT BOLINGBROOK'S CLOW INCLUDING, AMONG OTHER INCIDENTAL WORK, THE FOLLOWING ITEMS: INSTALLATION OF PERIMETER FENCING.
INSTALLATION OF ELECTRIC AND NONELECTRIC FENCE GATES.
TOPSOILING AND SEEDING OF DISTURBED AREAS.

AIRPORT IN BOLINGBROOK, ILLINOIS.

CALL BEFORE
YOU DIG

DUPAGE TOWNSHIP, WILL COUNTY

ENGINEER'S FIELD OFFCIE

CONTRACTOR'S EQUIPMENT STORAGE AND PARKING; RESEED AREA AT PROJECT COMPLETION

2. MAXIMUM I APPROVAL NOTES 1. WORK MUST

BE CONTROLLED

₽

MAINTAINED WITHIN THE CONSTRUCTION

SCALE IN FEET

HEIGHT OF CONTRACTOR'S EQUIPMENT IS 20 FEET EXCEPT BY OF THE ENGINEER (SEE SPECIAL PROVISIONS).

PRIOR IMI K

3. TRAFFIC

TO BE MAINTAINED

ON ALL

AIRPORT

ROADWAYS AT ALL TIMES.

HOME

WORK IN THIS AREA IS NOT PERMITTED UNTIL AUTHORIZED BY THE RESIDENT ENGINEER. MEET EXISTING FENCE

NE 1/4 OF SECTION 18, PROJECT IS LOCATED IN REMOVE EXISTING WOODEN FENCE

CONTRACTOR'S CONSTRUCTION LIMIT LINE, TYP.

WORK IN THIS AREA IS NOT PERMITTED UNTIL AUTHORIZED BY THE RESIDENT ENGINEER.

CONTRACTOR'S ACCESS TO CONSTRUCTION SITE

CLOW INTERNATIONAL

LILY CACHE LANE

EXISTING STORMWATER RETENTION

BASIN

EXISTING

TIEDOWNS

FB0 BUILDINGS

-MEET EXISTING FENCE LINE

AUTO PARK

CORPORATE HANGARS

OFFICE HANGARS

EXISTING AIRPORT PROPERTY LINE

Ξ,

MEET EXISTING-FENCE LINE

8

105+00

TAXIWAY A1

120+00

TAXIWA 1543

130±08

TAXIWAY A

EXISTING TIEDOWNS

TERMINAL AND RESTAURANT

1' OUTSIDE PROPOSED FENCE, 19' INSIDE PROPOSED FENCE. ALL CONTRACTOR ACCESS SHALL BE FROM INSIDE THE PROPERTY LINE,

EXISTING GROUND ACCESS

SERVICE

CONTROL POINT 1807

CONTROL POINT 1806-

133+62.22

WORK TO BE PERFORMED SHALL BE AS SCHEDULED IN THE BASE BID AND EITHER CHAIN LIWIK FENCE AND GATES AS DETAILED, BID BI SFOR ARCHITECTURAL FENCE SUBMIT COSTS FOR FOR BID A ITEMS AND BID BITEMS IN ADDITION TO THE BASE R BID A OR BID B.
E AND GATES AS CE BID ITEMS.

PROTECTION OF EXISTING AIRPORT FACILITIES THE CONTRACTOR SHALL ONLY OPERATE WITHIN THE LIMITS OF CONSTRUCTION SHOWN. . BID A IS FOR GALVANIZED DETAILED. BIDDERS SHALL

THE CONTRACTOR IS TO BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND LIGHTING EQUIPMENT; DRIVEWAY AND ROAD PAYEMENT AND SHOULDERS; RUNWAY, TAXIWAY AND ARPORT AND SEDED AND SHOULDERS, RUNWAY, TAXIWAY, AND ARPORT LOHTING EQUIPMENT; BUILDINGS LOCATED ON THE ARPORT AND SEDED AND TURFED AREAS THAT ARE UTILIZED IN OR AFFECTED BY THE CONTRACTOR'S ACTIVITIES. ITEMS DAMAGED BY THE CONTRACTOR ARE TO BE REPAIRED AT CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE AIRPORT MANAGER AND THE RESIDENT

EXISTING BENCHMARKS

GENERAL NOTES

RESPONSIBILITY FOR EXISTING UTILITIES

THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES MAY RESPONSIBILITY WHATEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANITE, EITHER EXPRESSED OR IMPUED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTHY THE UTILITY COMPANIES OF THIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE. TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SOMEDILE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

ALL UTILLTY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILLTY, CONTACT JULE (JOINT UTILLTY LOCATION INFORMATION FOR EXCANATORS) FOR UTILLTY INFORMATION, PHONE: 1-800-892-0123. CONTACT THE FAA (FEDERAL AVAIRON ADMINISTRATION) FOR ASSISTANCE IN LOCATINON OF FAA FOWER, CONTROL, AND COMMUNICATION CABLES SHALL BE COORDINATED WITH AND/OR LOCATION BY THE FAA. ALSO CONTACT ARRPORT DRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILLTES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILLTES.

CONTROL POINT 1807
LAT 41:41:37.09*
LONG 8807:43.58*
ELEV, 656.39
N: 1831019:48
E: 1040117.88 FEET EAST FROM THE CENTER OF THE RUNWAY, 52.8 FEET NORTH FROM THE CENTER OF THE RAMP, 48.9 FEET EAST — SOUTHEAST FROM A RUNWAY LIGHT, AND 31.5 FEET WEST FROM THE CENTER OF THE TAXIWAY.

CONTROL POINT 1806
LAT 41'41'52.85"
LONG 8807'44.23"
ELEV. 664.48
N: 1832613.98
E: 1040065.14
LOCATION - 91.9 FEET EAST FROM THE CENTER OF THE RUNWAY, 47.2 FEET SOUTH FROM RAMP, AND 33.5 FEET WEST FROM THE CENTER OF THE TAXWAY. 롰

> CENTER 유 롰

WORK SCHEDULE

CONSTRUC

ON SAFETY NOTES

TO MINIMIZE DISRUPTIONS TO AIRPORT OPERATIONS, CONSTRUCTION OPERATIONS MUST BE CONTROLLED THROUGHOUT THE PROJECT'S DURATION AND WORK MUST BE COMPLETED EXPEDITIONSLY. THE CONTRACTOR IS TO PREPARE AND FOLLOW A STAGING PLAN HAT COORDINATES HIS WORK WITH THE WORK OF HIS SUBCONTRACTORS AND THE WORK OF OTHER CONTRACTORS ON_FIELD. THIS STAGING PLAN MUST BE SATISFACTORY TO THE OWNER'S REPRESENTATIVE AND THE AIRPORT MANAGER. THE CONTRACTOR SHALL EXPEDITE WORK AT THOSE STAGES WHEN ACTIVE TAXIMAYS, APRONS, ROADWAYS OR PARKING LOTS MUST BE CLOSED TO MINIMIZE THE LENGTH OF TIME THAT AIRPORT OPERATIONS ARE RESTRICTED.

AIRFIELD OPERATIONAL SAFETY DURING CONSTRUCTION

ALL CONSTRUCTION TRAFFIC AND PERSONNEL SHALL REMAIN V PERSONNEL AND EQUIPMENT MUST NOT OPERALTE WITHIN 200 RUNWAY, 60 FEET OF ACTIVE TAXIMAY/TXALAURE CENTERLINES WILL BE LIMITED TO 20 FEET WITHOUT PRIOR APPROVAL OF TH N WITHIN THE CONSTRUCTION LIMIT LINE SHOWN ON THE SITE PLAN. CONTRACTOR'S O FEET OF AN ACTIVE RUNWAY CENTERLINE, 400 FEET OF THE THRESHOLD OF AN ACTIVE ESS OR WITHIN 10 FEET OF AN ACTIVE APRON EDGE. THE CONTRACTOR'S EQUIPMENT HEIGHT THE RESIDENT ENGINEER AND THE AIRPORT MANAGER.

MEN IT IS NECESSARY FOR CONSTRUCTION VEHICLES TO OPERATE ON OR WITHIN THESE UNITS. THE TAXIMAYS OR APRON MIST BE CLOSED. THE CONTRACTOR MILL PROVIDE POSTINE CONTRACTOR SONSTRUCTION VEHICLES USING RADIO-EQUIPPED FLAGGERS. ALL CONTRACTOR'S EQUIPPENT USED IN ACTIVE METORS OF THE REAS SHALL BE EQUIPPED WITH A FAX-STANDARD FLAG, AS REFERANCED IN FAX AC 150/5370-2, CURRENT ISSUE. ARCRAFT SHALL HAVE THE RIGHT-OF-WAY. CONSTRUCTION VEHICLES SHALL NOT CROSS ANY ACTIVE RUNWAYS. THE COST OF ALL TRAFFIC CONTROL, BOTH WITHIN AND OUTSIDE OF AIRPORT OPERATIONS AREAS, IS TO BE INCIDENTAL TO THE CONTRACT. THE CLOSING OF THE RUNWAY SHALL NOT BE PERMITTED DURING THIS PROJECT.

WHEN NOT IN USE AND DURING NONWORKING HOURS, CONTRACT AND PARKING AREA. AT NO TIME SHALL THE CONTRACTOR OP SURFACE. TOR'S EQUIPMENT SHALL BE PARKED WITHIN THE CONTRACTOR'S EQUIPMENT, STORAGE ERATE OR PARK EQUIPMENT SO AS TO OBSTRUCT AN ACTIVE RUNWAY APPROACH

BEFORE REOPENING TEMPORARILY CLOSED TAXIWAYS, APRONS, NECESSARY, THE PAVEMENT TO ASSURE THAT NO MATERIALS CLEANING SHALL BE TO THE SATISFACTION OF THE OWNER'S F 3, ROADWAYS OR PARKING LOTS, THE CONTRACTOR SHALL INSPECT AND CLEAN, AS 10 OBJECTS THAT MAY DAMAGE ARCRAFT OR VEHICLES REMAIN. ANY REQUIRED REPRESENTATIVE AND AIRPORT MANAGER AND IS INCIDENTAL TO THE CONTRACT.

NOTIFICATIONS BY CONTRACTOR

THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND TAXIWAYS, APRONS, ROADWAYS, PARKING LOTS, AIRFIELD OR R AIRPORT DIRECTOR 72 HOURS IN ADVANCE OF THE CONTRACTOR'S CLOSING OF ACTIVE OADWAY LIGHTING CIRCUITS OR OTHER AIRPORT OPERATIONAL FACILITIES.

THE CONTRACTOR SHALL NOT OPERATE WITHIN, ENCROACH UPON OR OBSTRUCT AIRPORT OPERATIONAL AREAS, INCLUDING ACTIVE RUNWAY, TAXIWAYS AND APRON SAFETY AREAS, OBJECT AND OBSTACLE FREE ZONES, RUNWAY PROTECTION ZONES AND AIRPORT IMAGINARY SURFACES AS DEFINED IN FEDERAL AVIATION REGULATIONS (FAR) PART 77, "OBJECTS AFFECTING NANGABLE AIRSPACE". CONTRACTOR'S USE OF SITE

THE CONTRACTOR SHALL PROVIDE 72 HOURS PRIOR NOTICE OF UTILITY. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY OBER REQUIRED BY THE OWNING AGENCY AT NO COST TO THE OW UTILITY OUTAGES AND SHUTDOWNS OF ANY OUTAGES OR SHUTDOWNS TO THE OWNER AND THE CONNECTIONS OR OTHER MEASURES AS MAY BE REQUIRED OWNER. AGENCY OWNING THE AFFECTED TO MAINTAIN SERVICE AS MAY

HANSON

08A0180 Hanson No. Filename 03-SITE PLAN & GEN 1"=200' Scale Date 01/27/10 LAYOUT LDH

Bolling brook

Village of Bolingbrook, Illinois 375 West Briarcliff Road Bolingbrook, Illinois 60440 Telephone: 630.226.8400

DATE REVISION

ВОЛСН1ОИ ВО.

PERIMETER FENCE INSTALLATION

SITE PLAN AND GENERAL AND SAFETY NOTES

Hanson Professional Services Inc. 815 Commerce Drive Suite 200 Oak Brook, Illinois 60523

DRAWN REVIEWED

01/27/10 01/27/09 LDH 01/29/10 RMH

IL. PROJ.: 1C5-3995

A.I.P. PROJ.: 3-17-0135-B2

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PERIMETER FENCE INSTALLATION

FENCE REMOVAL PLAN

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HANSON

Hanson Professional Services Inc. 815 Commerce Drive Suite 200 Oak Brook, Illinois 60523

08A0180 Hanson No. Filename 04-FENCE REMOVAL P 1"=100' Scale 01/27/10 Date

01/27/10 01/27/10 xx/xx/xx LAYOUT DRAWN LDH LDH REVIEWED RMH



IL. PROJ.: 1C5-3995

| | | DATE | REVISION |
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| | | | |
| | Village of Bolingbrook, Illinois | | |
| | 375 West Briarcliff Road | | |
| J | Bolingbrook, Illinois 60440 | | |
| | Telephone: 630.226.8400 | | |
| | Telephone. 030.220.0400 | | |
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| ŀ | A.I.P. PROJ.: 3-17-0135-B2 | | |

01/27/10

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IL. PROJ.: 1C5-3995

A.I.P. PROJ.: 3-17-0135-B2

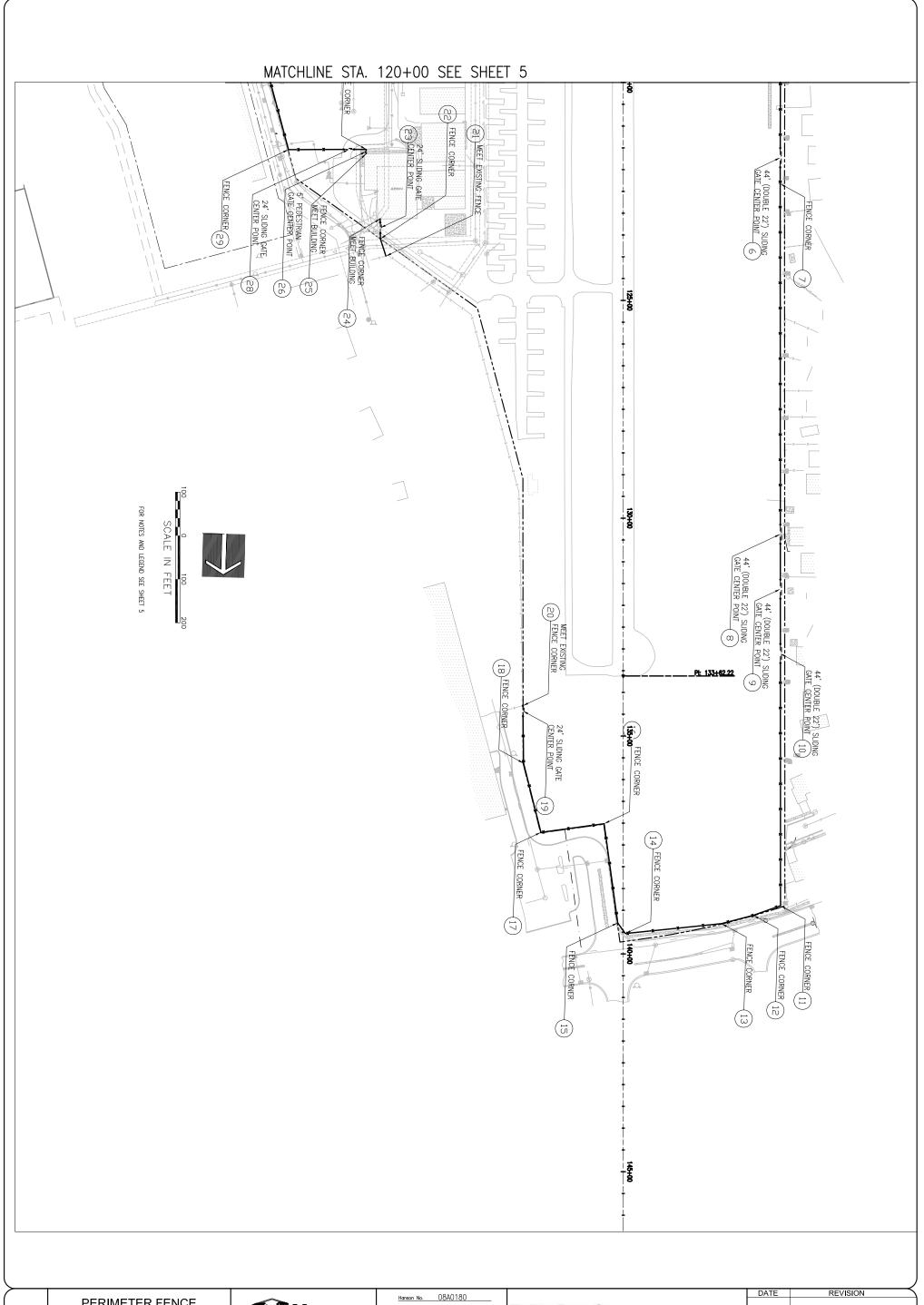
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DRAWN

REVIEWED

815 Commerce Drive Suite 200 Oak Brook, Illinois 60523



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PERIMETER FENCE INSTALLATION

FENCING PLAN

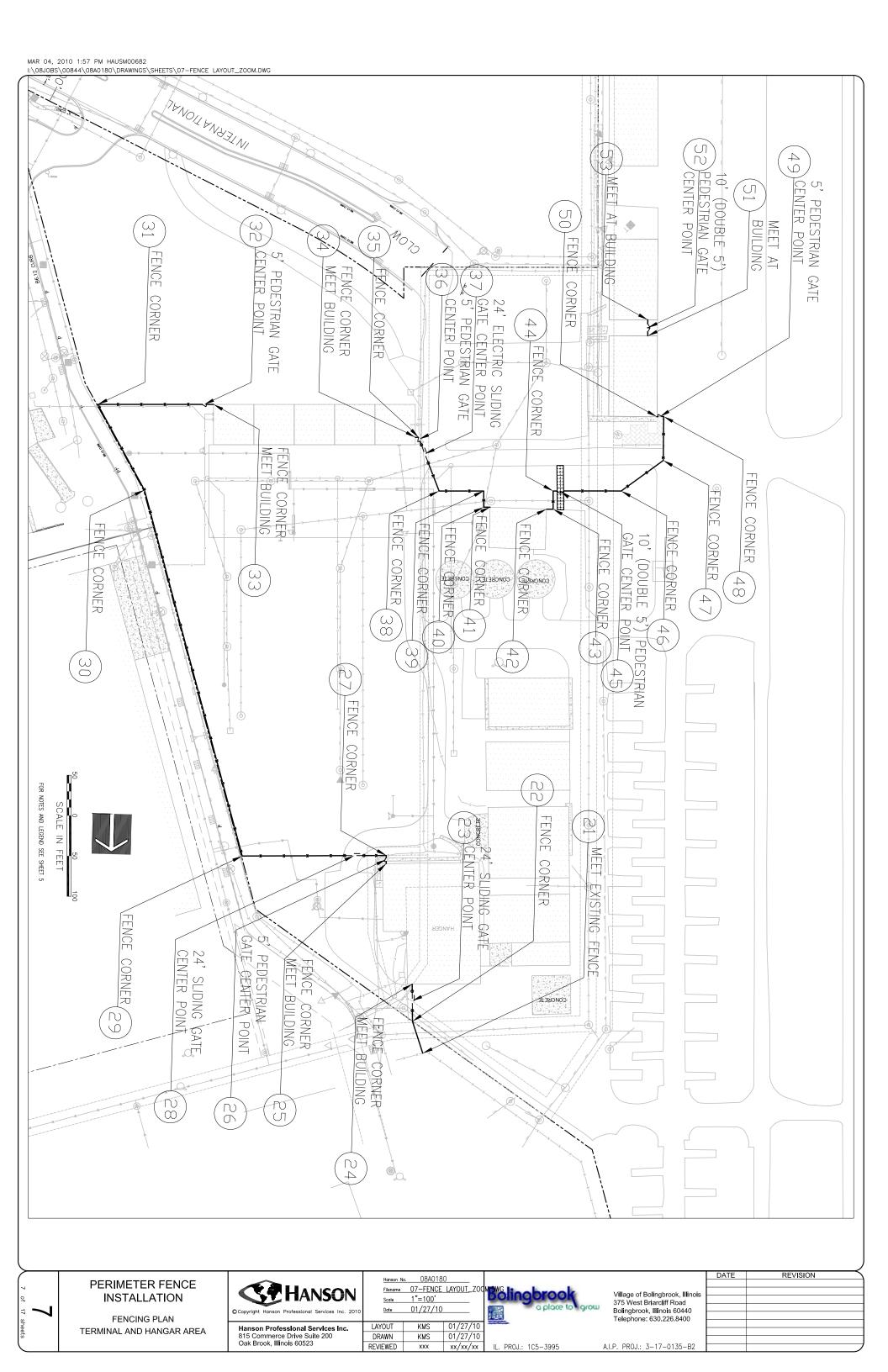
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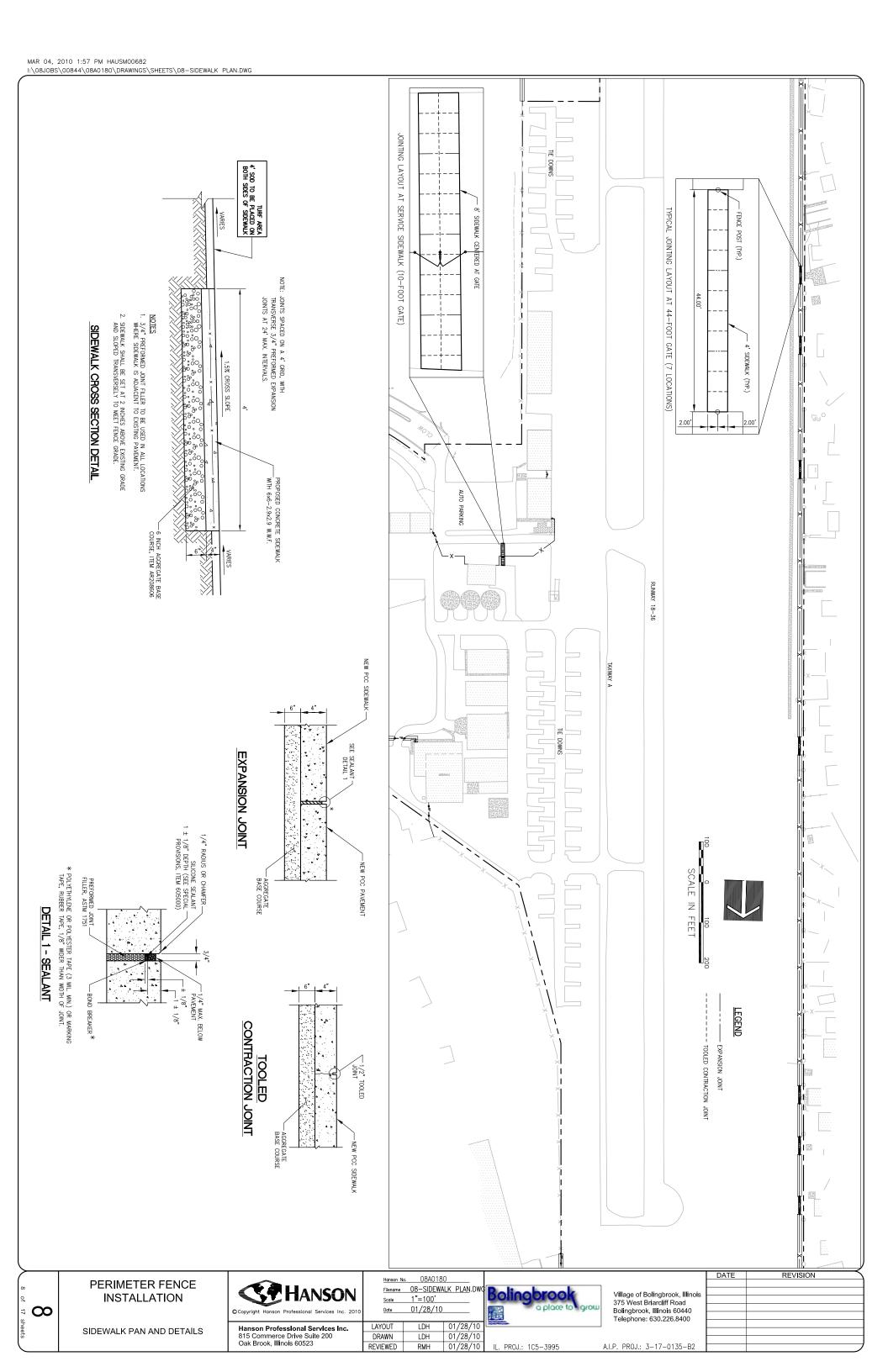
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| IMANSON | <u>Scale</u> | 1"=200' | |
| Copyright Hanson Professional Services Inc. 2010 | <u>Date</u> | 01/27/10 | |
| Hanson Professional Services Inc. | LAYOUT | KMS | 01/27/10 |
| 815 Commerce Drive Suite 200 | DRAWN | KMS | 01/27/10 |
| Oak Brook, Illi nois 60523 | REVIEWED | XXX | xx/xx/xx |
| | | | |

| Boling | brook |
|--------|-----------------|
| | a place to grow |

IL. PROJ.: 1C5-3995

| Village of Bolingbrook, Illinois 375 West Briarcliff Road Bolingbrook, Illinois 60440 | |
|---|--|
| Telephone: 630.226.8400 | |
| A.I.P. PROJ.: 3-17-0135-B2 | |





SEE SPECIAL PROVISIONS. SS40 POSTS SHALL NOT BE USED. COST OF TRENCHING FOR FENCE FABRIC BURIAL SHALL BE INCIDENTAL TO CHAIN LINK FENCE.

SONOTUBE TO BE USED FOR CASTING POST FOUNDATIONS WHERE REQUIRED BY THE SOIL CONDITIONS TO PROVIDE A CONSTANT WIDTH FOOTUNG

ALUMINUM RESTRICTED AREA SIGNS SHALL BE FURNISHED AS SHOWN IN THE DETAIL. COST INCIDENTAL TO FENCE OR GATE.

GATE HOLDBACKS SHALL BE PROVIDED TO HOLD GATES IN THE OPEN POSITION. THEY SHALL BE LOCATED AND INSTALLED AS SHOWN OR AS DIRECTED BY THE RESIDENT ENGINEER. PUIL POSTS SHALL BE PLACED AT 660 FOOT INTERVALS BETWEEN CORNER OR END POSTS TO WHICH THE ENDS OF THE FABRIC ARE CLAMPED OR MIDWAY BETWEEN SUCH POSTS WHEN THE DISTANCE IS LESS THAN 1,320 FEET AND GREATER THAN 660 FEET.

SCH. 40 2.375"

3.65

PIPE SCH. 40 1.66"

LINE POST

HORIZONTAL BRACES

GATE OPENING

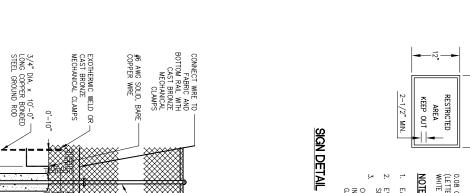
(FT.)

PIPE SCH. 40

SECTION (PIPE SCH. 40 2

N (O.D.) 2.875" TERMINAL POST

OVER 16 TO 28



0.08 GA. ALUMINUM ALLOY SHEET (LETTERING COLOR SHALL BE RED ON WHITE BACKGROUND.)

FABRIC TIE SPACED AT 24" C-C MAX.

1. EACH GATE SHALL REQUIRE ONE SIGN.

EVERY 100' OF FENCE SHALL REQUIRE ONE SIGN.

STRETCHER BAR BAND SPACED A 14" C-C MAX. -

15° OF MORE

WHEN FENCE LINE HAS A CHANGE IN DIRECTION OF 15' OR NORE, A ITEMINAL POST SHALL BE PLACED AS SHOWN ABOVE. WHERE ANGLE IS LESS THAN 15' AND EXISTING CONDITIONS REQUIRE A TERMINAL POST, THEY SHALL BE PLACED AS DIRECTED BY THE RESIDENT ENGINEER.

INSTALLATION AT CORNERS

-LINE POST (TYP.)

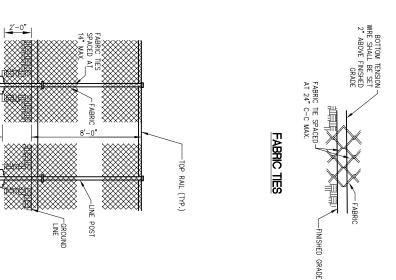
POST

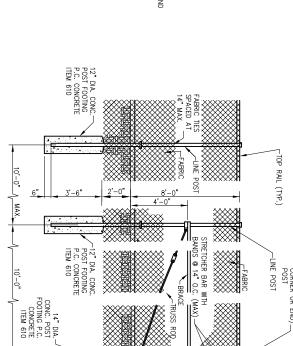
STRETCHER BAR BAND

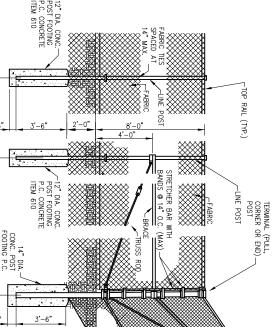
COST OF THESE SIGNS AND THEIR INSTALLATION IS INCIDENTAL TO FENCE OR GATE.

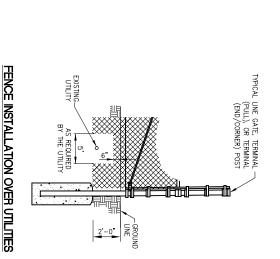
GROUNDS SHALL BE INSTALLED AT END POSTS AND AT 500' INTERVALS ALONG THE FENCE EXCEPT AROUND THE ELECTRICAL VAULT WHERE THEY ARE TO BE PLACED AT ALL FOUR FENCE CORNERS, COST INCIDENTAL TO FENCE. 1'-0" CORNER POST -GROUND 12" MIN.

12" DIA. CONC.-POST FOOTING P.C. CONCRETE ITEM 610

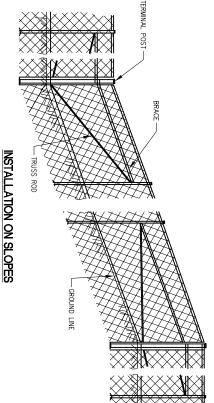








| PIPE SCH. 40 2.0" * |
|------------------------|
| SECTION (O.D.) LBS/FT. |
| GATE FRAMES |
| |





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PERIMETER FENCE INSTALLATION

CHAIN LINK FENCE DETAILS

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| Hanson No. | . 08A018 | 0 |
|-------------|----------|---------|
| Filename | 09-FENC | ING DET |
| Scale | NTS | |
| <u>Date</u> | 01/28/10 | |
| | | |
| LAYOUT | LDH | 01/28/1 |



Village of Bolingbrook, Illinois 375 West Briarcliff Road Bolingbrook, Illinois 60440 Telephone: 630.226.8400

| DATE | REVISION |
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Hanson Professional Services Inc. 815 Commerce Drive Suite 200 Oak Brook, Illinois 60523

DRAWN LDH

. PROJ.: 1C5-3995

BID A

BID A - ALL FENCE, FABRIC, POSTS, GATES, TENSION WIRE, RODS, BRACES, ARMS, BARBED WIRE AND MISCELLANEOUS FITTINGS SHALL BE GALVANIZED STEEL.

PROTECTIVE ELECTRICAL GROUND

LINE POST

TERMINAL (PULL, CORNER OR END) POST

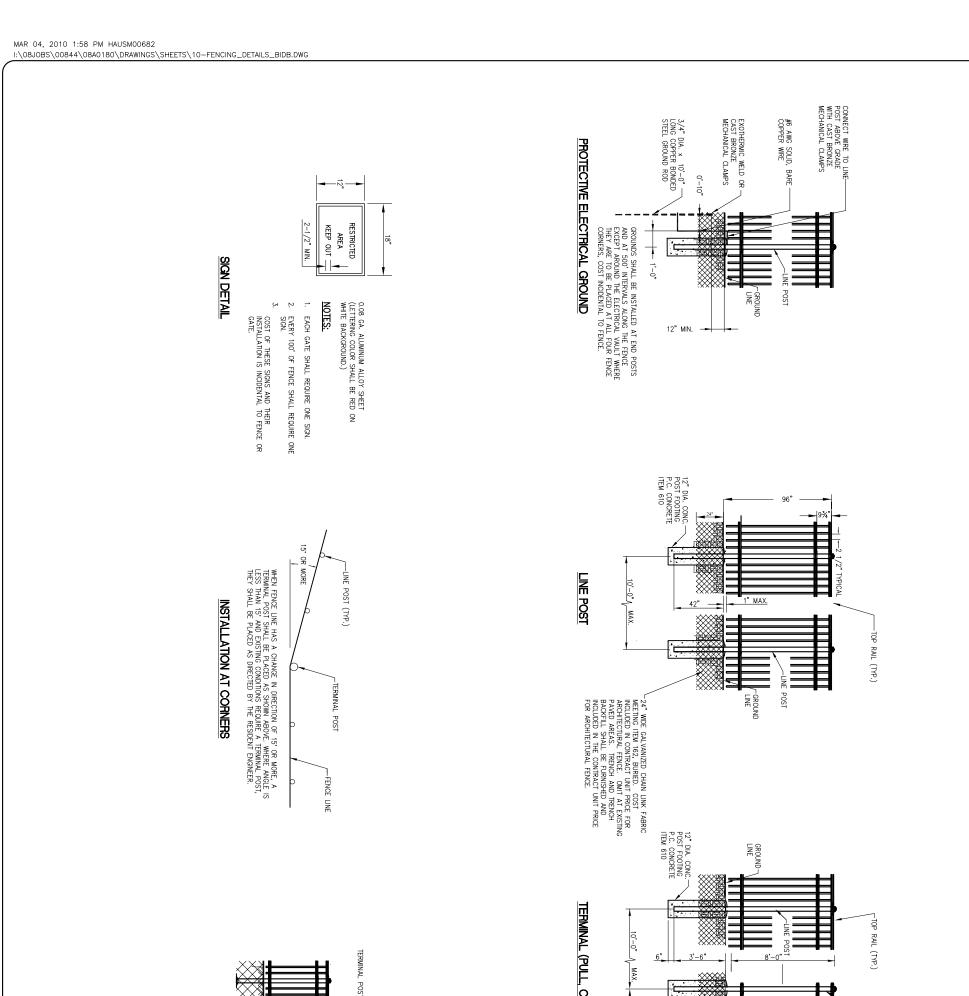
2. FENCE HEIGHT SHALL BE 10' WITH BOTTOM 2' BURIED. GATE HEIGHT ABOVE GROUND LINE SHALL BE 8'-0" AS SHOWN.

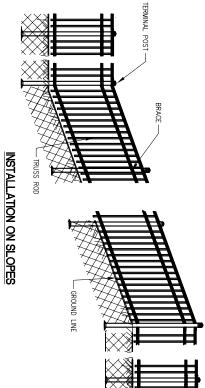
FENCING NOTES

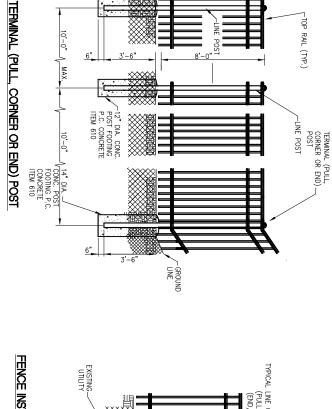
01/28/10 REVIEWED RMH xx/xx/xx

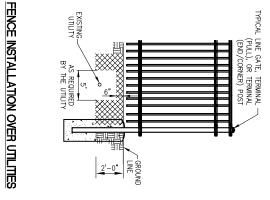
A.I.P. PROJ.: 3-17-0135-B2











PERIMETER FENCE **INSTALLATION**

ARCHITECTURAL FENCE DETAILS



| Hanson No | . 08A018 | 0 |
|-----------|----------|----------|
| Filename | 10-FENC | ING_DETA |
| Scale | NTS | |
| Date | 01/27/10 | |
| | | |
| LAYOUT | KMS | 01/27/10 |
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Bolingbrook

Village of Bolingbrook, Illinois 375 West Briarcliff Road Bolingbrook, Illinois 60440 Telephone: 630.226.8400

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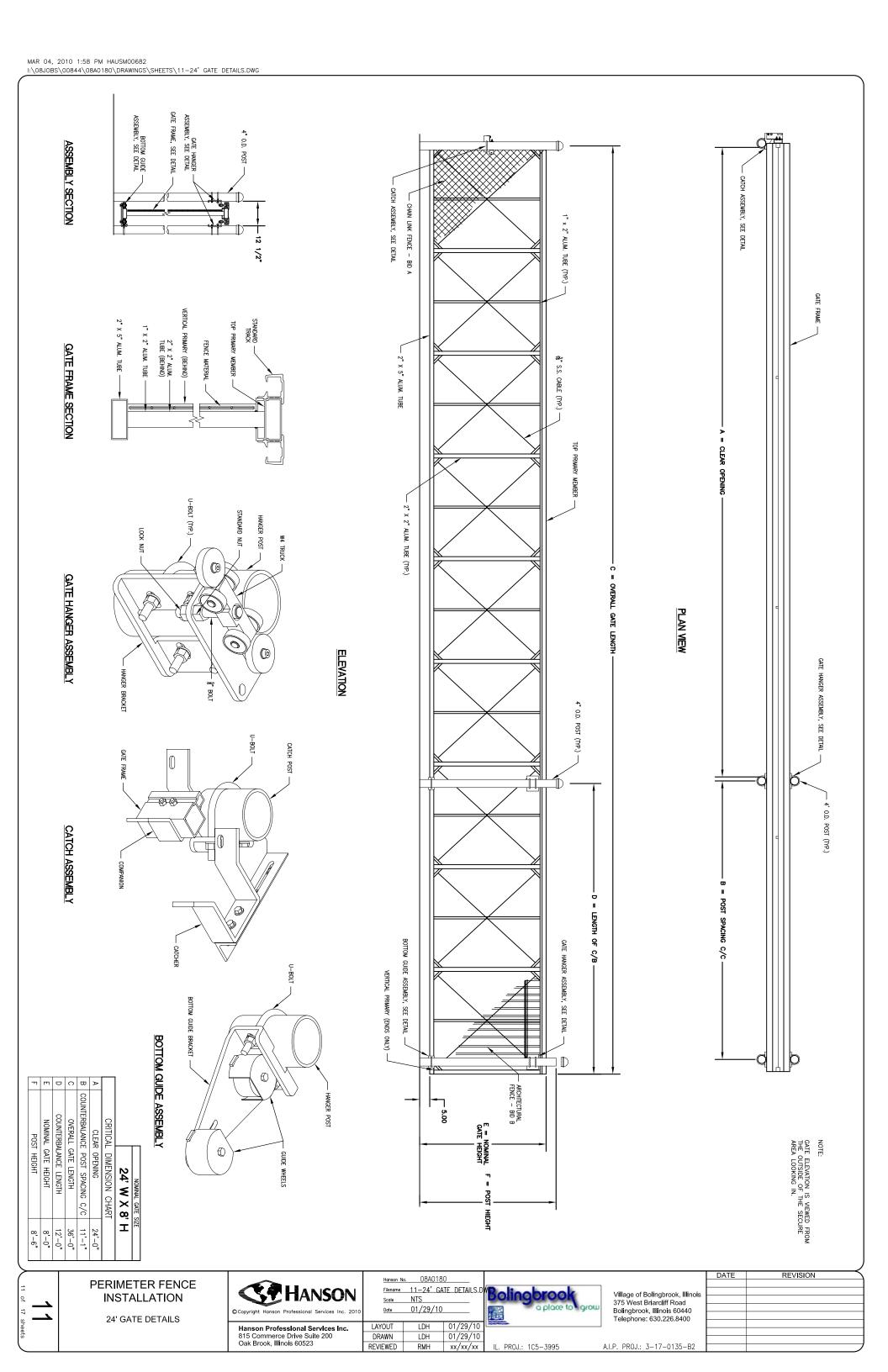
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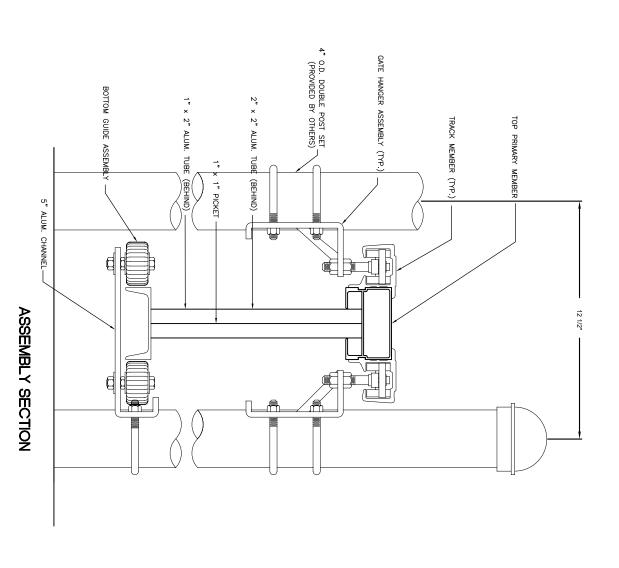
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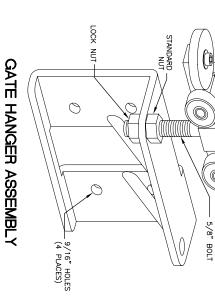
01/27/10 xx/xx/xx

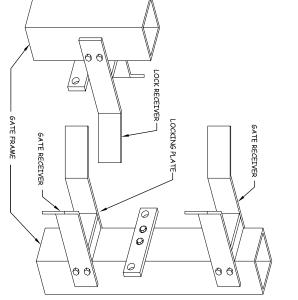
BID B

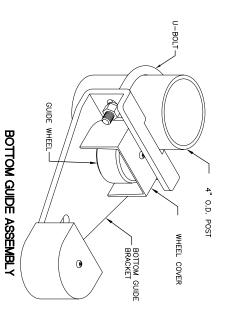
A.I.P. PROJ.: 3-17-0135-B2







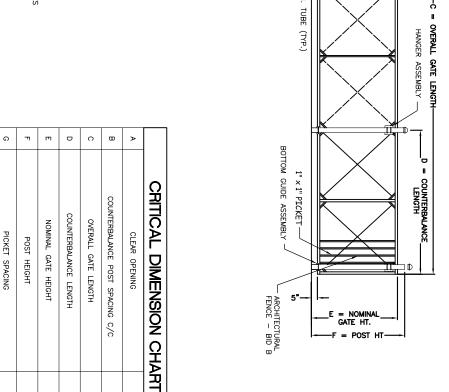




| CRITICAL DIMENSION CHART CLEAR OPENING COUNTERBALANCE POST SPACING C/C |
|--|
| CLEAR OPENING |
| COUNTERBALANCE POST SPACING C/C |
| OVERALL GATE LENGTH |
| COUNTERBALANCE LENGTH |
| NOMINAL GATE HEIGHT |
| POST HEIGHT |
| PICKET SPACING |

08A0180

Filename 12-44' GATE DET



PERIMETER FENCE INSTALLATION

44' GATE DETAILS

| HANSON |
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| ional Services Inc. 2010 | Date | 01/27/10 | |
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| al Services Inc. | LAYOUT | KMS | 01/27/10 |
| e Suite 200 | DRAWN | KMS | 01/27/10 |
| 0523 | DEVIEWED | RMH | xx/xx/xx |

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CHAIN LINK FENCE - BID A -

─ 3/16" S.S. AIRCRAFT CABLE (TYP.) ~ 5" ALUM. CHANNEL (TYP.)

-G = PICKET SPACING (O.C.)

 $-1" \times 2"$ ALUM. TUBE (TYP.)

W4 TRUCK-

ELEVATION

_D = COUNTERBALANCE LENGTH

-C = OVERALL GATE LENGTH -4" O.D. POST (TYP.)

TOP PRIMARY MEMBER (TYP.)

-CENTER CATCH ASSEMBLY

PLAN VIEW

GATE FRAME

HANGER ASSEMBLY

B = POST SPACING C/C

4" O.D.POST (TYP.)

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Hanson Professiona 815 Commerce Drive Oak Brook, Illinois 605

A.I.P. PROJ.: 3-17-0135-B2 IL. PROJ.: 1C5-3995

N

CATCH ASSEMBLY

| ENGINE GENERATOR SET | |
|---|-------------|
| TRANSFER SWITCH: N = NORMAL R = RERGENCY L = LOAD | - ° ° × |
| CONTROL STATION | 2 2 2 |
| DUPLEX RECEPTACLE 120V SINGLE PHASE GROUNDING TYPE | Ф |
| fuse panel with main fuse pullout | ₩≪□≫• |
| PANELBOARD WITH MAIN BREAKER | ##1-~ |
| PANELBOARD WITH MAIN LUGS | |
| SOLID NEUTRAL, NEUTRAL BUS, OR NEUTRAL TERMINAL | S/N |
| GROUND BAR, GROUND BUS OR GROUND TERMINAL | GND |
| DEVICE DESCRIPTION | XX |
| JUNCTION BOX WITH SPLICE OR TERMINALS | 0 |
| electric utility meter base | 0 |
| LOAD, MOTOR, # = HORSEPOWER | (4-) |
| MOTOR | (E) |
| INDICATING LIGHT | a |
| GROUND — GROUND ROD, GROUNDING ELECTRODE, OR AT EARTH POTENTIAL | |
| TRANSIENT VOLTAGE SUPPRESSOR OR SURGE PROTECTOR DEVICE | #• •- |
| FUSE | |
| TOGGLE SWITCH / 2 POSITION SWITCH | % |
| NORMALLY CLOSED (N.C.) CONTACT | ¥ |
| NORMALLY OPEN (N.O.) CONTACT | ‡ |
| THERMAL MAGNETIC CIRCUIT BREAKER | 7 |
| CIRCUIT BREAKER | |
| FUSIBLE DISCONNECT SWITCH | |
| DISCONNECT SWITCH | |
| TRANSFORMER | ₹ |
| CABLE TERMINATOR/LUG, TERMINAL BLOCK, OR SPLICE | + |

| | ELECTRICAL LEGEND — PLANS |
|------------|--|
| | CONDUIT (EXPOSED) |
| | CONDUIT OR UNIT DUCT (CONCEALED OR BURIED) |
| | DUCT |
| | DUCT |
| <u>_</u> E | BURIED/UNDERGROUND ELECTRIC |
| — OHE — | OVERHEAD ELECTRIC |
| ∞ | TOGGLE SWITCH |
| \$ | PUSH BUTTON STATION |
| ю0° | WALL OR CEILING MTD. JUNCTION BOX. CONFIGURATION VARIES WITH USE |
| ď | SINGLE THROW DISCONNECT SWITCH |
| ď | SINGLE THROW, FUSIBLE DISCONNECT SWITCH |
| ч́Ш | ENCLOSED CIRCUIT BREAKER |
| ® | MOTOR |
| T | TRANSFORMER |
| В | ELECTRIC UTILITY METER |
| | ENCLOSURE |
| | CIRCUIT BREAKER PANEL—SEE SCHEDULES |
| Q | CONTROL PANEL |
| 0 | GROUND ROD |
| 9 | POLE WITH CAMERA |

| OVERLOAD | <u>و</u> |
|---|----------------|
| OVERHEAD ELECTRIC | ЭНО |
| NOT TO SCALE | STN |
| NORMALLY OPEN | NO |
| NORMALLY CLOSED | NC |
| NATIONAL ELECTRICAL CODE (NFPA 70) | NEC |
| MAIN LUGS ONLY | MLO |
| MINIMUM | MIN |
| METAL HALIDE | ¥ |
| MANUFACTURER | MFR |
| MAIN DISTRIBUTION PANEL | MDP |
| THOUSAND CIRCLUAR MIL | MCM |
| MAIN CIRCUIT BREAKER | MCB |
| MAXIMUM | MAX |
| LIGHTING PANEL | 5 |
| LIGHTING | LTG |
| LIQUID TIGHT FLEXIBLE METAL CONDUIT (UL LISTED) | LTFMC |
| LIGHTING CONTACTOR | Ю |
| KILOWATTS | KW |
| KILOVOLT AMPERE(S) | KVA |
| JUNCTION BOX | ل |
| HIGH PRESSURE SODIUM | HPS |
| HORSEPOWER | 韦 |
| HAND OFF AUTOMATIC | НОА |
| HIGH INTENSITY DISCHARGE | 푬 |
| GALVANIZED RIGID STEEL CONDUIT | GRSC |
| GROUND | GND |
| GROUND FAULT INTERRUPTER | GFI |
| GROUND FAULT CIRCUIT INTERRUPTER | GFCI |
| ELAPSE TIME METER | ETM |
| INTERTEK - ELECTRICAL TESTING LABS | ETL |
| EMERGENCY STOP | ES |
| EXPLOSION PROOF | EP |
| ENCLOSURE | ENCL |
| ELECTRICAL METALLIC TUBING | EMT |
| EMERGENCY | EM |
| DOUBLE POLE SINGLE THROW | DPST |
| DOUBLE POLE DOUBLE THROW | DPDT |
| COPPER | S |
| CONTROL RELAY | C _R |
| CIRCUIT | СКТ |
| CIRCUIT BREAKER | 83 |
| CONDUIT | C |
| BREAKER | BKR |
| AMERICAN WIRE GAUGE | AWG |
| AUTOMATIC TRANSFER SWITCH | ATS |
| AMPERES | A, AMP |
| ABOVE FINSHED FLOOR | A.F.F. |
| | |

| PG PB | PULL BOX |
|-------|------------------------------------|
| PDB | POWER DISTRIBUTION BLOCK |
| PNL | PANEL |
| RCPT | RECEPTACLE |
| ZD. | RELAY |
| s | STARTER |
| SPD | SURGE PROTECTION DEVICE |
| SPST | SINGLE POLE SINGLE THROW |
| TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| ΤΥP | TYPICAL |
| ug | UNDERGROUND |
| UGE | UNDERGROUND ELECTRIC |
| UL | UNDERWRITER'S LABORATORIES |
| < | VOLTS |
| w/ | МІТН |
| W/0 | МІТНОИТ |
| WP | WEATHER PROOF |
| XFER | TRANSFER |
| XFMR | TRANSFORMER |

| | TRANSFER |
|---|--|
| | TRANSFORMER |
| Ш | |
| Ã | RPORT EQUIPMENT/FACILITY ABBREVIATIONS |
| | AUTOMATED SURFACE OBSERVING SYSTEM |
| | AIR TRAFFIC CONTROL TOWER |

208/120 VAC.
PHASE A
PHASE B
PHASE C
NEUTRAL
GROUND SEE RESPECTIVE SITE PLANS FOR SITE LEGEND INFO C. 3 PHASE, 4 WIRE BLACK RED BLUE WHITE GREEN

01/22/10

01/22/10

xx/xx/xx

- LITMC DENOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT UL LISTED, SUNLIGHT RESISTANT, & SUITABLE FOR GROUNDING. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO CCR'S & TRANSFORMERS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. EXTERNAL BONDING JUMPERS USED WITH CCR INSTALLATIONS SHALL BE #6 AWG COPPER (MINIMUM). DO NOT INSTALL LITMC THAT IS NOT UL LISTED. CONFIRM LITMC BEARS THE UL LABEL PRIOR TO INSTALLATION.
- HIGH VOLTAGE & LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME WIREWAY, CONDUIT, DUCT, OR HANDHOLE. ALL ENCLOSURES RATED NEMA 4, 4X SHALL HAVE WATERTIGHT HUBS AT CONDUIT ENTRANCES U.L. LISTED NEMA 4, 4X FOR THE RESPECTIVE ENCLOSURE, TO MAINTAIN THE NEMA 4, 4X RATING.
- PER NEC 513 THE ENTIRE AREA OF A HANGAR INCLUDING ANY ADJACENT AND COMMUNICATING AREAS NOT SUITABLY CUT OFF FROM THE HANGAR, SHALL BE CLASSIFED AS A CLASS I, DIVISION 2 HAZARDOUS LOCATION UP TO A LEVEL 18 INCHES ABOVE THE FLOOR. PER NEC 513.3(c) "VICINITY OF AIRCRAFT POWER PLANTS OR AIRCRAFT FUEL TANKS SHALL BE CLASSIFED AS A CLASS I, DIVISION 2 LOCATION THAT SHALL EXTEND UPWARD FROM THE FLOOR TO A LEVEL 5 FT. ABOVE THE UPPER SURFACE OF WINGS AND OF ENGINE ENCLOSURES. ALL ELECTRICAL INSTALLATIONS IN CLASSIFED HAZARDOUS LOCATIONS SHALL BE AVOIDED UNLESS SPECIFICALLY APPROVED FOR SUCH LOCATIONS AND INSTALLED IN CONFORMANCE WITH NEC 500, 501, AND 513 AS WELL AS OTHER APPLICABLE CODES AND REQUIREMENTS.

LEGEND - ONE-LINE DIAGRAM

ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 — NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE, THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.

ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT DIRECTOR/MANAGER. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 OFR PART 1910 OCCUPATIONAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 OFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).

COLOR CODE PHASE AND NEUTRAL CONDUCTOR INSULATION FOR NO. 6 AWG OR SMALLER. PROVIDE COLORED INSULATION OR COLORED MARKING TAPE FOR PHASE AND NEUTRAL CONDUCTORS FOR NO. 4 AWG AND LARGER. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR AWG AND/OR KCMIL TO COMPLY WITH NEC 250.119. NEUTRAL CONDUCTORS SHALL HAVE WHITE COLORED INSULATION FOR NO. 6 AWG AND SMALLER TO MEET THE REQUIREMENTS OF NEC 200.6. STANDARD COLORS FOR POWER WIRING AND BRANCH CIRCUITS SHALL BE AS FOLLOWS:

| REMENTS DUIT THAT TO CCR'S DNDING | UIT UL JNDING. TED | RMATION. | | |
|-----------------------------------|--------------------------|----------|---|---|
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| Boling | brook a place to grow | \ 3 E |
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| | a place to a grow | - |

Village of Bolingbrook, Illinoi 375 West Briarcliff Road Bolingbrook, Illinois 60440 Telephone: 630.226.8400

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PERIMETER FENCE INSTALLATION

ELECTRICAL LEGEND AND ABBREVIATIONS

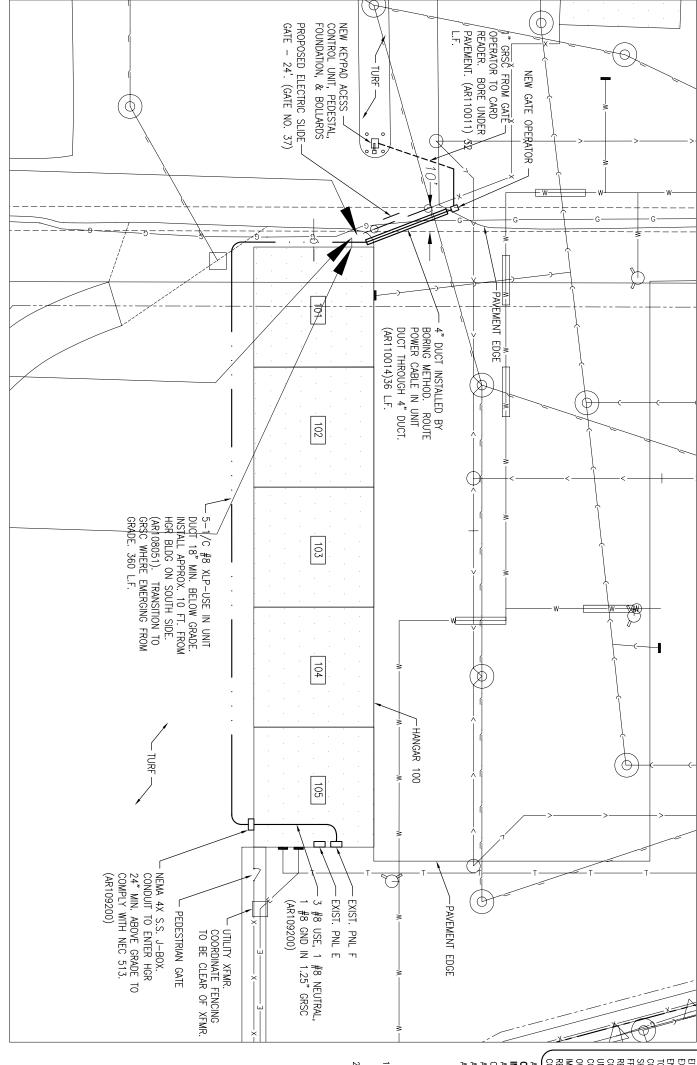
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LAYOUT KNL DRAWN MV REVIEWED XXX

HANSON

PROJ.: 1C5-3995

A.I.P. PROJ.: 3-17-0135-B2



NOTES:

SEE "PROPOSED ELECTRIC SLIDE GATE DETAILS" SHEET FOR ADDITIONAL REQUIREMENTS ON ELECTRIC SLIDE GATE WORK.

SEE PLAN SHEET 5 FOR ADDITIONAL LEGEND INFO.

ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY.

CONTACT JULIE (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS) FOR UTILITY

INFORMATION, PHONE: 1-800-892-0123. CONTACT THE FAA (FEDERAL AVAITION

ADMINISTRATION) FOR ASSISTANCE IN LOCATING FAA CABLES AND UTILITIES. LOCATION

OF FAA POWER, CONTROL, AND COMMUNICATION CABLES SHALL BE COROFIDINATED WITH

AND/OR LOCATED BY THE FAA. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND

AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES

AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.

THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. WEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPUED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OF THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL AND ASSISTANCE IN THE FACILITIES AND THE WORKING SCHEDULE OF THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE MAMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE MESSIONED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

ELECTRIC SLIDE GATE ELECTRICLA SITE PLAN

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| LAYOUT | KNL 01/27/ | |
| DDAWAI | 1.07 | 01/07/10 |

EXISTING ELECTRICAL CABLES

EXISTING WATER LINE PROPOSED ELECTRICAL CABLES

EXISTING TELEPHONE LINE

Bolingbrook

Village of Bolingbrook, Illinois 375 West Briarcliff Road Bolingbrook, Illinois 60440 Telephone: 630.226.8400

A.I.P. PROJ.: 3-17-0135-B2

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PERIMETER FENCE **INSTALLATION**

Hanson Professional Services Inc. 815 Commerce Drive Suite 200 Oak Brook, Illinois 60523 DRAWN

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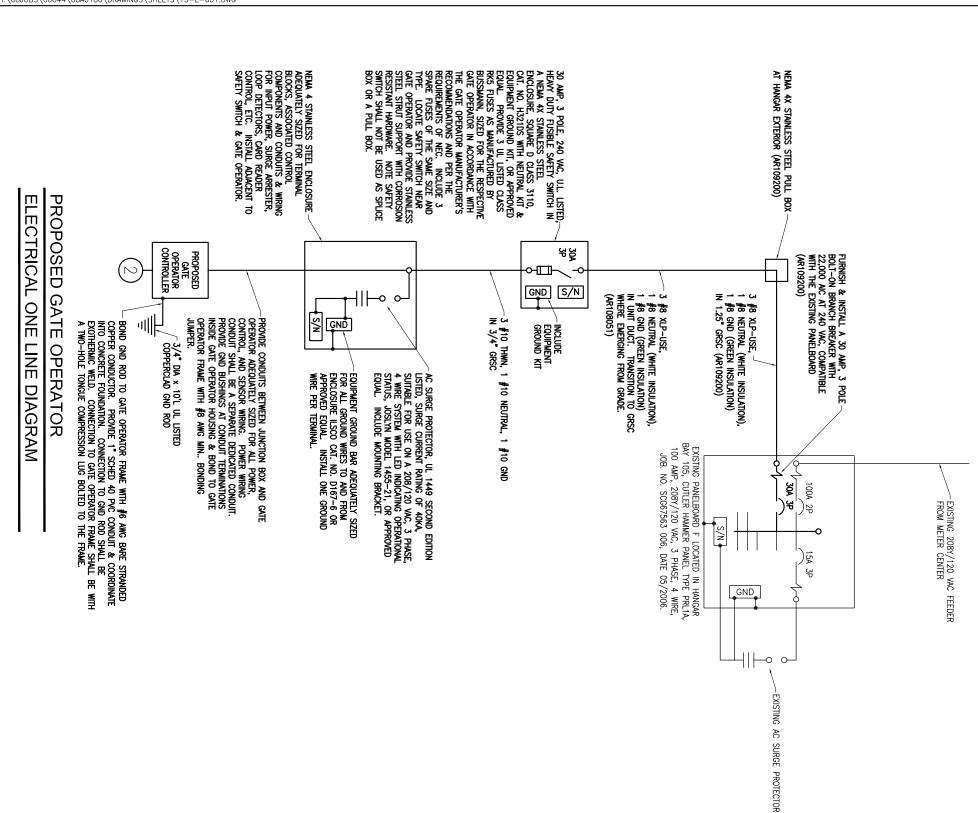
CARD READER WITH BOLLARDS

EXISTING MANHOLE

PROPOSED FENCE EXISTING GAS LINE

IL. PROJ.: 1C5-3995

REVIEWED XXX xx/xx/xx



"ELECTRICAL LEGEND AND ABBREVIATIONS" JIREMENTS. SHEET FOR GENERAL NOTES AND

EQUIPMENT SHOWN NOT LABELED AS EXISTING IS NEW.

FIXED WIRING IN THE RESPECTIVE HANGAR SHALL BE IN PLY WITH THE REQUIREMENTS OF NEC 513.7. METAL RACEWAYS TO

COM ALL ₽

ALL CONTROL POWER TRANSFORMERS, POWER SUPPLIES, RECEPTACLES, LOOP DETECTOR AMPLIFIERS, SECONDARY SAFETY DEVICE EQUIPMENT, AND ANY OTHER ASSOCIATED CONTROLS SHALL BE INSTALLED ETHER INSIDE THE GATE OPERATOR CONTROL PANEL OR INSIDE A SEPARATE NEMA 4 STANLESS STEEL CONTROL PANEL ENCLOSURE. WHERE THE CONTROL EQUIPMENT IS TO BE INSTALLED INSIDE THE GATE OPERATOR CONTROL PANEL THE CONTROLARD HALL COORDINATE THIS WITH THE GATE OPERATOR MANUFACTURER AND THE RESPECTIVE GATE OPERATOR COUNTROL SUPPLIER. LOCATING THESE CONTROLS OUTSIDE OF GATE OPERATOR CONTROL PANEL BUT WITHIN THE GATE OPERATOR HOUSING WILL NOT MEET THIS REQUIREMENT.

OUT BREAKER, CABLES, COMENT PER LUMP SUM. CONDUITS, & JUNCTION BOXES INSTALLED IN OR FOR UNDER ITEM AR109200 INSTALL ELECTRICAL

XLP-USE (POWER CABLE) IN UNIT DUCT FROM HANGAR 100 TO THE GATE YATOR WILL BE PAID FOR UNDER ITEM AR108501 POWER CABLE IN UNIT PER LINEAL FOOT.

PERIMETER FENCE INSTALLATION

ELECTRIC SLIDE GATE **ELECTRICAL ONE-LINE** DIAGRAM



815 Commerce Drive Suite 200 Oak Brook, Illinois 60523

08A0180 Hanson No. Filename 15-E-601.DWG NONE Scale Date 01/29/10 01/22/10 01/25/10 LAYOUT KNL DRAWN MV

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REVIEWED

Bolingbrook

. PROJ.: 1C5-3995

Village of Bolingbrook, Illinois 375 West Briarcliff Road Bolingbrook, Illinois 60440 Telephone: 630.226.8400

A.I.P. PROJ.: 3-17-0135-B2

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ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70-NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE, THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.

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PROVIDE 4" DIRECTIONAL BORE DUCT UNDER PAVEMENT. ROUTE CABLE IN UNIT DUCT THROUGH DUCT. COORDINATE LOCATION TO REDUCE PAVEMENT DISTURBANCE.

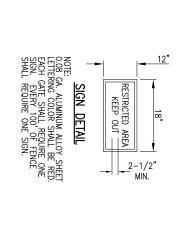
AIRFIELD ACCESS

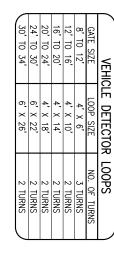
COORDINATE EQUIPMENT LOCATIONS WITH FENCING AND SITE PLAN

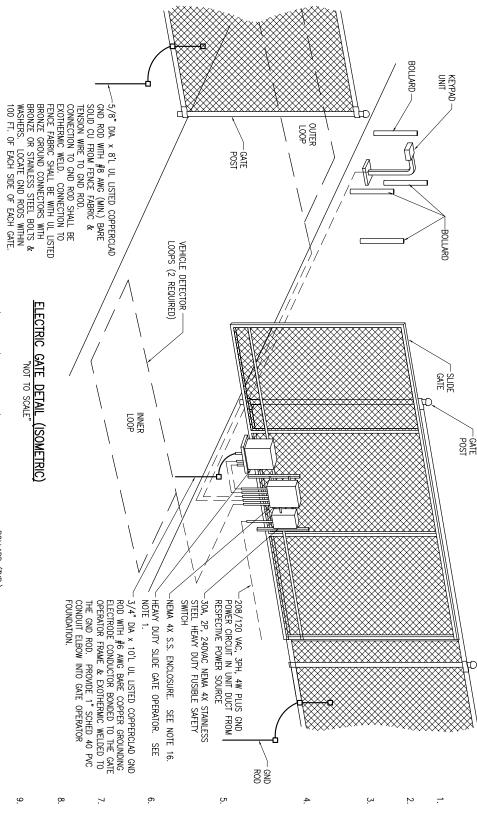
ELECTRIC GATE PLAN
"NOT TO SCALE"

"3/4" DIA × 10'L UL LISTED COPPERCIAD GND ROD WITH #6 AWG BARE COPPER GROUNDING ELECTRODE CONDUCTOR BONDED TO THE GATE OPERATOR FRAME & EXOTHERMIC WELDED TO THE GND ROD. PROVIDE 1" SCHED 40 PVC CONDUIT ELBOW INTO GATE OPERATOR FOUNDATION.

TO POWER SOURCE







5/8" DIA. x 8'L UL LISTED COPPERCLAD—GND ROD WITH #8 AWG (MIN.) BARE SOLID CU FROM FENCE FABRIC & TENSION WIRE TO GND ROD.
CONNECTION TO GND ROD SHALL BE EXOTHERMIC WELD. CONNECTION TO FENCE FABRIC SHALL BE WITH UL LISTED BRONZE GROUND CONNECTORS WITH BRONZE OR STAINLESS STEEL BOLITS & WASHERS. LOCATE GND RODS WITHIN 100 FT. OF EACH SIDE OF EACH GATE. GATE POST DRIVEWAY ENTER ELECTRIC GATE DETAIL (ISOMETRIC) OUTER LOOP INNER LOOP E 屽 NOT TO SCALE GATE POST **@** POWER & CONTROL CONDUITS TO GATE OPERATOR. 208 VAC POWER FEED SHALL BE IN A SEPARATE DEDICATED CONDUIT. HEAVY DUTY SLIDE GATE OPERATOR. SEE NOTE 1. -30A, 3P, 240VAC NEMA 4X STAINLESS STEEL HEAVY DUTY FUSIBLE SAFETY SWITCH PROVIDE 1" GRSC FROM ENCLOSURE/CATE OPERATOR TO PAVEMENT EDGE FOR LOOP DETECTOR LEAD-IN WIRING (TYP. EACH LOOP) 208/120 VAC, 3PH, 4W PLUS GND POWER CIRCUIT IN UNIT DUCT FROM RESPECTIVE POWER SOURCE KEYPAD POWER & CONTROL WIRING WITH #12 KEYPAD UNIT. SEE NOTE 1 BOLLARD (TYP.) NEMA 4X S.S. ENCLOSURE. EQUIPMENT GND IN 1" GRSC NEW SLIDE GATE -CHAIN LINK FENCE SEE NOTE 16.

EDGE OF PAVEMENT

NOTES:

- SEE SPECIAL PROVISION SPECS FOR REQUIREMENTS ON RESPECTIVE GATE & GATE OPERATOR SYSTEM.
- ALL DIMENSIONS AND LAYOUT INFORMATION SHOWN SHOULD BE ADJUSTED RECOMMENDED BY THE MANUFACTURER. SEE RESPECTIVE SITE PLAN FOR

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- 1" GRS CONDUIT WILL BE REQUIRED BETWEEN THE SLIDE GATE OPERATOR AND THE KEYPAD ACCESS CONTROL UNIT AND BETWEEN THE SLIDE GATE OPERATOR AND THE DETECTOR LOOPS. THE MINIMUM BURYING DEPTH IS 24". ALL METAL CONDUITS ENTERING THE GATE OPERATOR HE BONDED TO THE GATE OPERATOR FRAME WITH A #8 AWG (MIN.) COPPER BONDING JUNPER. CONFIRM CONTROL WIRNIG REQUIREMENTS WITH THE RESPECTIVE GATE OPERATOR SALES AND SERVICE REPRESENTATIVE. CONCRETE FOUNDATIONS SHALL BE PROVIDED FOR THE SLIDE GATE OPERATOR AND THE KEYPAD ACCESS CONTROL UNIT. FOUNDATION FOR THE GATE OPERATOR SHALL BE 48" (MIN.) IN DEPTH AND OF THE SIZE RECOMMENDED BY THE MANUFACTURER. FOUNDATION FOR THE KEYPAD ACCESS CONTROL UNIT SHALL BE 48" (MIN.) IN DEPTH, AS DETAILED HEREIN.
- THE GUARD/BOLLARD POSTS SHALL BE 4" DIA. STEEL (HEAVY WALL) PIPE, CONCRETE FILLED, AND SHALL EXTEND FROM THE TOP OF THE KEYPAD ACCESS CONTROL UNIT TO A DEPTH OF 48" BELOW THE GROUND LINE. THE CONCRETE FOOTER DIMENSION SHALL BE AS DETAILED HEREIN.

 GUARD/BOLLARD POSTS SHALL BE PAINTED WITH YELLOW COLORED ENAMEL
- AS PART OF THIS IT PROVIDED BY THE C FREQUENCIES WITH " THE SLIDING GA THE PLANS, SH PROTECTED FRO MANUFACTURED 3 GATE SHALL BE CANTILEVER TYPE OF THE SIZE CALLED , SHALL HAVE AN ENCLOSED ROLLER ASSEMBLY WHICH IS FROM FREEZING RAIN AND SNOW, AND SHALL BE AS RED BY TYMETAL CORPORATION OR APPROVED EQUAL. ITEM 10 REMOTE TRANSMITTERS FOR EACH GATE SHALL BE CONTRACTOR. COORDINATE PROGRAMMING OF TRANSMITTER HE AIRPORT MANAGER. FOR 9
- CONTRACTOR SHALL COORDINATE ANY POWER OUTAGES TO EXISTING EQUIPMENT WITH THE RESPECTIVE OWNER'S REPRESENTATIVE AND THE AIRPORT
- INCLUDE UL LISTED SECONDARY SURGE ARRESTER FOR THE GATE OPERATOR SUITABLE FOR USE ON 208/120 VAC, 3 PHASE, 4 WIRE PLUS GROUND SYSTEM, WITH SURGE CURRENT RATING OF 40 KA PER MODE, JOSLYN MODEL 1455-21, OR APPROVED EQUAL.
- CONCRETE USED FOR INSTALLING THE GATE OPERATOR, KEYPAD ACCESS, CONTROL UNIT, & FENCE SHALL MEET THE REQUIREMENTS OF STRUCTURAL PORTLAND CEMENT CONCRETE ITEM 610.

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10.

- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE, THE RESPECTIVE EQUIPMENT MANUFACTURES' DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE UL LISTING, ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- PROVIDE A WEATHERPROOF ENGRAVED PHENOLIC OR PLASTIC LEGEND PLATE FOR THE SAFETY SWITCH AT THE RESPECTIVE GATE OPERATOR NOTING THE GATE SERVED, VOLTAGE, AND RESPECTIVE POWER SOURCE CIRCUIT AND LOCATION.

13.

12.

- PAYMENT FOR EACH SLIDE GATE, KEYPAD ACCESS, CONTROL UNIT, GATE OPERATOR, AND ALL ASSOCIATED CONTROL & SAFETY DEVICES SHALL BE ON A LUMP SUM BASIS AND SHALL BE FULL COMPENSATION FOR ALL MATERIALS, EQUIPMENT, CABLE CONDUIT, GROUNDING, LABOR, TOOLS, COORDINATION, TESTING, AND INCIDENTALS REQUIRED TO INSTALL THE GATE COMPLETE AND IN OPERATING CONDITION.
- LOCATE RECEIVER ANTENNA TO PROVIDE PROPER OPERATION FROM REMOTE TRANSMITTERS FROM A DISTANCE UP TO 150 FEET. INCLUDE CONDUITS & SUPPORT HARDWARE. SWITCH/DISCONNECT.

15.

14.

CONTROL CIRCUIT WIRING SHALL NOT BE ROUTED THROUGH THE SAFETY

16.

6. ALL CONTROL POWER TRANSFORMERS, POWER SUPPLIES, RECEPTACLES, LOOP DETECTOR AMPLIFIERS, SECONDARY SAFETY DEVICE EQUIPMENT, AND MAY OTHER ASSOCIATED CONTROLS SHALL BE INSTELD EITHER INSIDE THE GATE OPERATOR CONTROL PANEL OR INSIDE A SEPARATE NEWA 4 STAINLESS STEEL CONTROL PANEL ENCLOSURE. WHERE THE CONTROL EQUIPMENT IS TO BE INSTALLED INSIDE THE GATE OPERATOR CONTROL PANEL THE CONTRACTOR SHALL COORDINATE THIS WITH THE GATE OPERATOR MANUFACTURER AND THE RESPECTIVE GATE OPERATOR EQUIPMENT SUPPLIER. LOCATING THESE CONTROLS OUTSIDE OF GATE OPERATOR CONTROL PANEL BUT WITHIN THE GATE OPERATOR HOUSING WILL NOT MEET THIS REQUIREMENT.

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815 Commerce Drive Suite 200

Oak Brook, Illinois 60523

| Hanson No | . 08A018 | 0 |
|-----------|----------|----------|
| Filename | 16-E-501 | .DWG |
| Scale | NONE | |
| Date | 01/29/10 | |
| | | |
| LAYOUT | KNL | 01/22/10 |
| DRAWN | MV | 01/25/10 |

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REVIEWED

Bolingbrook grow

Village of Bolingbrook, Illinois 375 West Briarcliff Road Bolingbrook, Illinois 60440 Telephone: 630.226.8400

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PERIMETER FENCE INSTALLATION

GOOSENECK PEDESTAL DETAIL SCALE: NONE

NOTE:
GOOSENECK PEDESTAL SHALL BE AMERICAN ACCESS SYSTEMS,
INC. (7079 SOUTH JORDAN RD., UNIT 6, ENGLEWOOD, CO
80112, PHONE: 800–541–5677, FAX 303–799–9756) MODEL
18-001 OR APPROVED EQUAL.

-1 3/4" SQ. $1/4^{n} \times 3/4^{n}$ └ 3/4" RD. 1-3/4" RD. BASE PLATE 10 1/2" 39 1/2" 41 13/32"

SCALE: NONE BOLLARD DETAIL

BOLLARD AND ASSOCIATED ITEMS ARE INCIDENTAL TO THE ELECTRIC SLIDING GATE.

THE EXPOSED PORTION OF THE BOLLARD SHALL BE PAINTED YELLOW EPOXY.

NOTES

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-18" CONCRETE ENCASEMENT

4" TOPSOIL AND SOD



FACE OF KEYPAD UNIT SHALL NOT EXTEND BEYOND BOLLARDS.

INCLUDE #12 AWG EQUIPMENT GND WIRE TO KEYPAD UNIT.

SEE SPECIAL PROVISION SPECS FOR REQUIREMENTS ON KEYPAD ACCESS CONTROL UNIT.



This Gate System for Vehicles Only. of People and Obstructions.

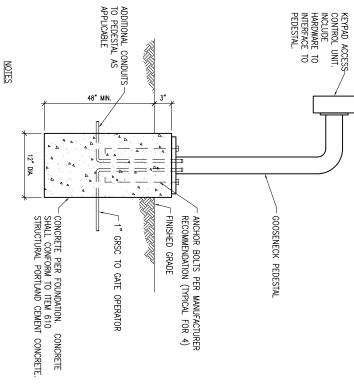
NOTES

WARNING SIGN DETAIL

SCALE: NONE

Operate Gate Only When In Sight and Free **Moving Gate Can Cause** Serious Injury or Death. Children Should Not Operate The Gate. Gate May Move At Any Time. Children Should Not Play Near Gate. KEEP CLEAR!

WARNING SIGNS/PLACARDS AS DETAILED ABOVE OR SIMILAR, SHALL BE INSTALLED WHERE CLEARLY VISIBLE ON BOTH SIDES OF EACH ELECTRIC SLIDE GATE. WARNING SIGNS SHALL BE WEATHERPROOF, CORROSION RESISTANT METAL, AS DETAILED ABOVE, AND IN A ACCORDANCE WITH THE RESPECTIVE GATE MANUFACTURER'S RECOMMENDATIONS, HY-SECURITY PART NO. MX0000882, OR EQUAL.



3/4" x 10'L UL — LISTED COPPERCLAD GROUND ROD. MIN. BURY 1'-0" BELOW FINISHED GRADE.

EXOTHERMIC WELD -CONNECTION

APPROX. 6" TO 8".

ADJUST HEIGHT OF SLAB

TO ACCOMMODATE
INTERFACE OF GATE &
GATE OPERATOR.

5'-6" NOMINA

-30A, 3P FUSIBLE SAFETY SWITCH IN NEMA 4X S.S. ENCL. PROVIDE STAINLESS STEEL STRUT SUPPORT TO MOUNT EQUIPMENT.

STAINLESS STEEL UNISTRUT P1000SS OR EQUAL, BOLT WITH STAINLESS STEEL HARDWARE.

NEMA 4X STAINLESS STEEL J-BOX

#6 AWG CU ¬

FINISHED GRADE

GRSC FOR INPUT POWER

GRSC SUPPORT POST (TYP.)

BOND METAL CONDUITS TO GATE OPERATOR FRAME WITH #8 AWG (MIN.) CU BONDING JUMPER

GATE OPERATOR

1" SCHED 40 PVC FOR GND ELECTRODE CONDUCTOR

TO TOP OF CONTROL
CARD UNIT (3' MIN)

-FINISHED GRADE

ROUND TOP OF CONCRETE

4" SCHEDULE 40 STEEL PIPE

-- FILL WITH CLASS SI CONCRETE, PAINTED YELLOW EPOXY

GATE OPERATOR MFR. SEE NOTE 1

_1" GRSC FOR DETECTOR LOOP LEAD-IN WIRING 1" GRSC FOR KEYPAD ACCESS CONTROL UNIT

4'-0"

-CONCRETE ENCASE SUPPORT POSTS MIN. 3" ALL SIDES (TYP.)

- FOUNDATION FOR GATE OPERATOR SHALL BE 48" MIN. & WIDTH RECOMMENDED BY THE MANUFACTURER. IN DEPTH AND OF THE LENGTH
- COORDINATE CONDUITS INTO FOUNDATION. ADJUST LOCATION OF SAFETY SWITCH & JUNCTION BOX TO BE CLEAR OF THE GATE OPERATOR, GATE AND OPENING.
- CONFIRM CONDUIT SIZES AND WIRING REQUIREMENTS (ADJUST/INCREASE CONDUIT SIZES WHERE APPLICABLE, DIFFERENT MANUFACTURERS. WITH THE GATE OPERATOR MFR.

 .. REQUIREMENTS VARY BETWEEN

ALL ENCLOSURES RATED NEMA 4, 4X SHALL HAVE WA ENTRANCES U.L. LISTED NEMA 4, 4X FOR THE RESPECTHE NEMA 4, 4X RATING. TION DETAIL

ATERTICHT HUBS AT CONDUIT CONTROL OF THE CONTROL OF

GATE OPERATOR FOUNDA

DATE REVISION 08A0180 Hanson No. Filename 17-E-502.DWG **HANSON** Bolingbrook Village of Bolingbrook, Illinois NONE Scale 375 West Briarcliff Road Date 01/29/10 Bolingbrook, Illinois 60440 Telephone: 630.226.8400 01/22/10 01/25/10 Hanson Professional Services inc. LAYOUT KNL DRAWN MV A.I.P. PROJ.: 3-17-0135-B2 REVIEWED . PROJ.: 1C5-3995 XXX xx/xx/xx

KEYPAD UNIT BOLLARD & GATE OPERATOR DETAILS

815 Commerce Drive Suite 200 Oak Brook, Illinois 60523