

INDEX OF SHEETS	
SHEET NO.	TITLE
1	COVER SHEET
2	SHEET INDEX AND SUMMARY OF QUANTITIES
3	SITE PLAN AND GENERAL NOTES
4	CONSTRUCTION AND SAFETY NOTES AND DETAILS
5	ALIGNMENT TABLES
6	SWPPP PLAN
7	SWPPP PLAN
8	SWPPP PLAN
9	SWPPP PLAN
10	SWPPP PLAN
11	SWPPP PLAN
12	PLAN AND PROFILE - ALIGNMENT 100
13	PLAN AND PROFILE - ALIGNMENT 100
14	PLAN AND PROFILE - ALIGNMENT 100
15	PLAN AND PROFILE - ALIGNMENT 100
16	PLAN AND PROFILE - ALIGNMENT 100
17	PLAN AND PROFILE - ALIGNMENT 100
18	PLAN AND PROFILE - ALIGNMENT 100
19	PLAN AND PROFILE - ALIGNMENT 100
20	PLAN AND PROFILE - ALIGNMENT 100
21	PLAN AND PROFILE - ALIGNMENT 200
22	PLAN AND PROFILE - ALIGNMENT 200
23	PLAN AND PROFILE - ALIGNMENT 200
24	PLAN AND PROFILE - ALIGNMENT 300
25	PLAN AND PROFILE - ALIGNMENT 400
26	PLAN AND PROFILE - ALIGNMENT 400
27	PLAN AND PROFILE - ALIGNMENT 400
28	PLAN AND PROFILE - ALIGNMENT 400
29	PLAN AND PROFILE - ALIGNMENT 500
30	PLAN AND PROFILE - ALIGNMENT 500
31	FENCE DETAILS
32	FENCE DETAILS
33	FENCE 28' GATE DETAILS
34	DRAINAGE AND EROSION CONTROL DETAILS
35	ELECTRICAL LEGEND AND ABBREVIATIONS
36	ELECTRICAL PLAN
37	ELECTRICAL POWER RACK DETAILS
38	ELECTRICAL GATE OPERATOR DETAILS
39	ELECTRICAL CARD READER DETAILS
40	ELECTRICAL ONE LINE DIAGRAM

SUMMARY OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	AS BID	RECORD PAID
AR108051	POWER CABLE IN UNIT DUCT	LINEAR FOOT	331.0	
AR109535	ELECTRICAL SERVICE ENTRANCE	LUMP SUM	1.0	
AR110014	4" DIRECTIONAL BORE	LINEAR FOOT	121.0	
AR150510	ENGINEER'S FIELD OFFICE	LUMP SUM	1.0	
AR151450	CLEARING AND GRUBBING	ACRE	1.1	
AR152499	UNCLASSIFIED EXCAVATION	LUMP SUM	1.0	
AR156510	SILT FENCE	LINEAR FOOT	2,365.0	
AR208606	6" AGGREGATE BASE COURSE	SQUARE YARD	58.0	
AR501604	4" PCC SIDEWALK	SQUARE FOOT	296.0	
AR800944	CL. E FENCE 10' BARB W/2' BUR. GA.	LINEAR FOOT	5,270.0	
AR800945	CLASS E FENCE 8' GALV	LINEAR FOOT	895.0	
AR800946	CL. E FEN. 10' W/O BARB 2' BUR. GAL	LINEAR FOOT	1,667.0	
AR800948	28' MANUAL SLIDING GATE GALV	EACH	4.0	
AR800949	10' PEDESTRIAN GATE GALV	EACH	1.0	
AR800959	REMOVE ISOLATED TREE	EACH	14.0	
AR800960	REMOVE STUMP	EACH	14.0	
AR800961	12" HDPE DRAINAGE PIPE W/ CONCRETE COLLARS	EACH	1.0	
AR800969	SECONDARY POWER DISTRIBUTION	LUMP SUM	1.0	
AR800991	REMOVE FENCE	LINEAR FOOT	3,835.0	
AR901510	SEEDING	ACRE	5.4	
AR905510	TOPSOILING (FROM ON SITE)	CUBIC YARD	64.0	
AR908510	MULCHING	ACRE	5.4	

ALTERNATE A				
ITEM NO.	DESCRIPTION	UNIT	AS BID	RECORD PAID
AS800946	CL. E FEN. 10' W/O BARB 2' BUR GA	LINEAR FOOT	603.0	
AS800947	28' ELECTRICAL SLIDING GATE GALV	EACH	2.0	

ALTERNATE B				
ITEM NO.	DESCRIPTION	UNIT	AS BID	RECORD PAID
AT800962	CL. E FEN 10' W/O BARB 2' BUR VIN	LINEAR FOOT	603.0	
AT800963	28' ELECTRICAL SLIDING GATE VINYL	EACH	2.0	

SOME FENCE ITEMS ARE BID AS ALTERNATE A ITEMS (AS) AND OTHERS ARE BID AS ALTERNATE B (AT). THE AWARD WILL BE MADE BASED ON THE BASE BID AND EITHER ALTERNATE A OR ALTERNATE B. ONLY ONE OF THE ALTERNATES WILL BE AWARDED.

PAYMENT WILL BE MADE UNDER THE ITEM NUMBERS, DESCRIPTIONS AND UNITS NOTED IN THE ABOVE TABLE IN ACCORDANCE WITH THE BASIS OF PAYMENT FOR EACH RESPECTIVE WORK ITEM NOTED IN THE SPECIAL PROVISIONS, COMPLETED AND ACCEPTED BY THE ENGINEER.

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAtee Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



Hanson No. 10A0151D	LDH	3/15/11
Filename 02-INDEX AND_SOO.DWG	LDH	3/15/11
Scale N/A	RMH	4/22/11
Date APRIL 22, 2011		
LAYOUT		
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SHEET INDEX AND SUMMARY OF QUANTITIES

INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

ALIGNMENT 100

ALIGNMENT	STATION	NORTHING	EASTING
BEGINNING OF ALIGNMENT	100+00	2094390.7236	1110473.0488
PI	100+33.56	2094365.9207	1110495.6635
PI	100+86.65	2094312.8388	1110495.1226
PI	101+36.05	2094312.3554	1110544.5214
PI	102+02.55	2094245.8374	1110543.8438
PI	102+55.82	2094244.7212	1110597.1015
PI	103+03.75	2094196.7985	1110596.1167
PI	103+47.79	2094196.4371	1110640.1549
PI	104+24.75	2094136.8867	1110688.8999
PI	104+49.05	2094152.2767	1110707.7015
PI	104+69.86	2094136.5264	1110721.2992
PI	104+84.71	2094123.0041	1110727.4515
PI	106+87.57	2093920.1600	1110729.9895
PI	107+99.53	2093919.2320	1110841.9412
PT	109+69.62	2093919.3538	1111012.0338
CENTER OF RADIUS (778.81' RAD)	---	2093920.2767	1111790.8472
PC	113+06.18	2094245.2416	1111083.2416
PT	113+06.18	2094245.2416	1111083.2416
CENTER OF RADIUS (1585.0' RAD)	---	2093572.3718	1112518.1520
PC	120+74.57	2094836.7426	1111562.3322
PI	123+51.18	2095003.5510	1111782.9885
PI	130+49.03	2095701.3398	1111792.0611
PI	130+75.90	2095717.1151	1111813.8155
PI	133+35.77	2095717.0957	1112073.6804
PI	133+42.89	2095724.2167	1112073.6750
PI	133+59.84	2095741.1720	1112073.7411
PI	139+52.06	2096333.3822	1112075.5249
PI	142+63.51	2096333.8598	1111764.0691
END OF ALIGNMENT	144+00	2096253.2592	1111653.9251

ALIGNMENT 200

ALIGNMENT	STATION	NORTHING	EASTING
BEGINNING OF ALIGNMENT	200+00	2096093.4480	1111337.7610
PI	201+30.53	2095981.1715	1111271.1936
PI	201+67.70	2095954.8923	1111297.4922
PI	201+86.45	2095944.8215	1111313.2988
PI	202+69.03	2095878.1268	1111361.9994
PI	203+42.69	2095834.5674	1111302.6032
PI	203+97.21	2095789.0660	1111272.5630
PI	204+04.88	2095782.7591	1111276.9296
PI	204+74.31	2095741.5080	1111221.0800
PI	205+30.25	2095786.7800	1111188.2250
PI	206+24.70	2095835.6920	1111107.4310
PI	207+60.68	2095952.2150	1111177.5380
PI	207+95.17	2095981.7630	1111195.3130
PI	209+70.07	2096128.5870	1111290.3670
END OF ALIGNMENT	212+00	2096302.2950	1111139.7300

NOTE:

COORDINATES ARE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, US SURVEY FOOT, NAD 83.

ALIGNMENT 300



ALIGNMENT	STATION	NORTHING	EASTING
BEGINNING OF ALIGNMENT	300+00	2096382.2614	1111285.2403
PI	300+82.95	2096436.9000	1111347.6570
END OF ALIGNMENT	301+00	2096449.8802	1111336.6168

ALIGNMENT 400

ALIGNMENT	STATION	NORTHING	EASTING
BEGINNING OF ALIGNMENT	400+00	2096502.9017	1111394.2887
PI	401+69.59	2096425.0888	1111544.9708
PI	403+96.56	2096424.8630	1111771.9462
PI	404+28.78	2096451.3120	1111790.3470
PI	404+77.31	2096465.4210	1111836.7790
PI	405+23.87	2096434.5585	1111871.6382
PI	409+83.65	2096433.2846	1112331.4149
PI	410+18.98	2096468.5777	1112333.1541
PI	412+99.53	2096749.1257	1112333.2910
PI	413+96.02	2096845.6128	1112334.2793
PI	415+27.97	2096977.5567	1112335.1666
PI	416+01.07	2097050.6508	1112334.3931
PI	416+61.76	2097052.0616	1112395.0713
PI	418+10.19	2097053.8856	1112543.4880
PI	420+31.07	2097055.5019	1112764.3592
PI	420+80.47	2097055.7016	1112813.7568
END OF ALIGNMENT	421+00	2097055.6392	1112833.2906

ALIGNMENT 500

ALIGNMENT	STATION	NORTHING	EASTING
BEGINNING OF ALIGNMENT	500+00	2098140.5886	1113305.1222
PI	500+13.22	2098140.5886	1113318.3407
PI	500+17.73	2098144.9069	1113319.6582
PI	501+04.55	2098227.9451	1113344.9918
PI	501+72.63	2098292.9331	1113365.2643
PI	502+44.98	2098365.2538	1113363.2193
PI	503+05.23	2098425.5069	1113363.1673
PI	503+65.33	2098485.6063	1113363.3213
PI	504+25.65	2098545.9276	1113363.1833
PI	504+85.45	2098605.7241	1113363.4233
PI	505+45.57	2098665.8431	1113363.8563
PI	506+03.95	2098724.2231	1113363.8774
PI	506+59.10	2098724.5301	1113308.7277
PI	507+14.41	2098779.8330	1113309.8658
PI	507+68.73	2098779.5307	1113364.1853
PI	507+86.37	2098797.1622	1113364.1853
PI	508+52.51	2098863.3067	1113364.6983
PI	509+15.43	2098926.2252	1113364.6083
PI	509+74.43	2098985.2243	1113364.8694
PI	510+08.87	2099007.6313	1113338.7155
END OF ALIGNMENT	512+00	2098987.7051	1113148.6266

REVISION					
DATE					
WAUKEGAN REGIONAL AIRPORT WAUKEGAN PORT DISTRICT 3580 North McAtee Road Waukegan, Illinois 60087 Telephone: 847.244.0066 Fax: 847.244.3813					
					
Hanson No. 10A0151D	Filename 05-ALIGNMENT TABLE.DWG	Scale N/A	Date APRIL 22, 2011	LAYOUT 3/15/11	LDH
				DRAWN 3/15/11	LDH
				REVIEWED 4/22/11	RMH
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ALIGNMENT DATA TABLE					
INSTALL PERIMETER FENCE PHASE 1 IDA No. UGN-4076 AIP No. 3-17-0105-B51					
5					
5 of 40 sheets					

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WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
3580 North McAfee Road
Waukegan, Illinois 60087
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Fax: 847.244.3813

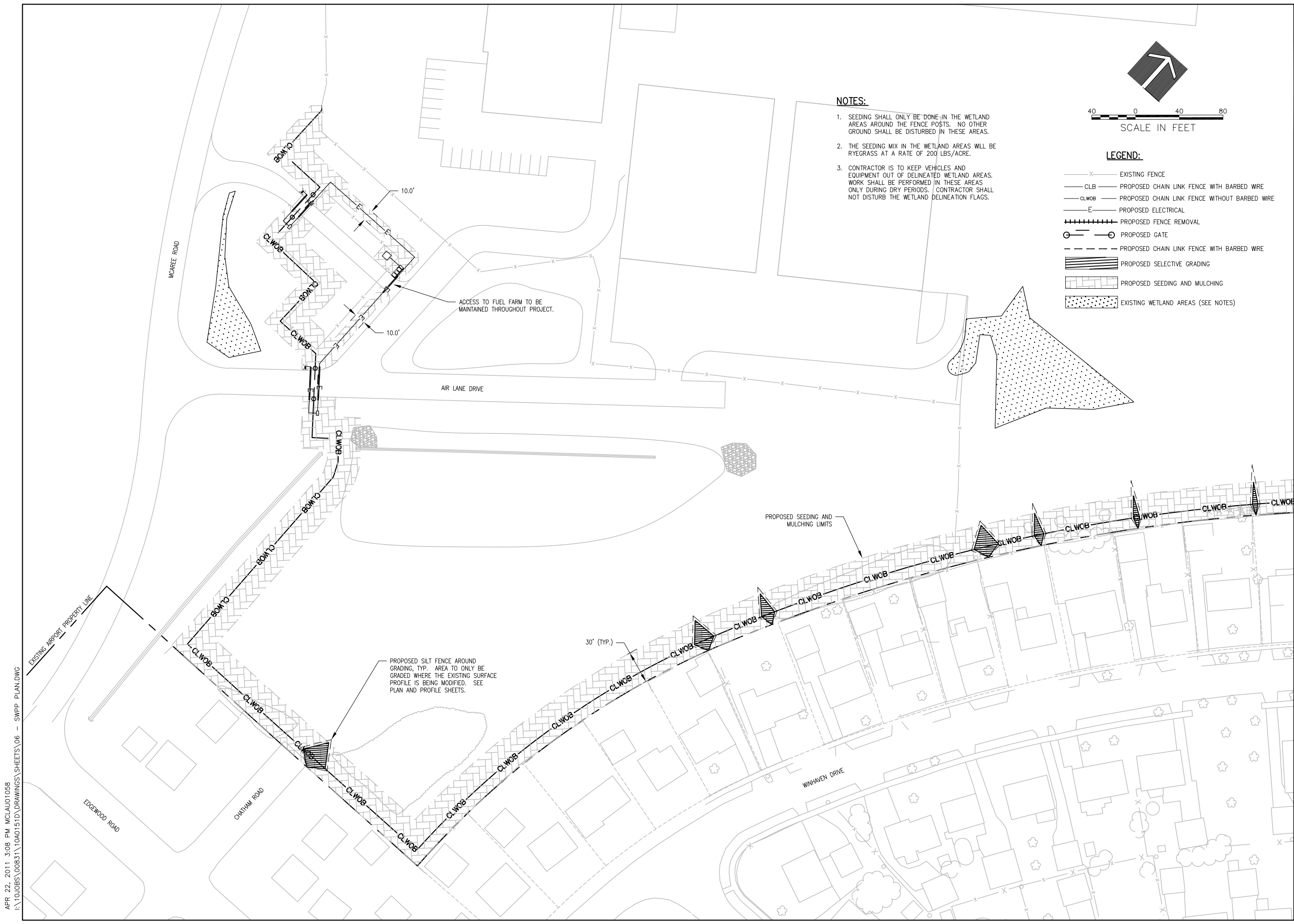


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Filename	06 - SWPP PLAN.DWG	DRAWN	LDH	4/20/11
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LANDSCAPING AND SWPP PLAN

INSTALL PERIMETER FENCE, PHASE 1
IDA No. UGN-4076 AIP No. 3-17-0105-B51

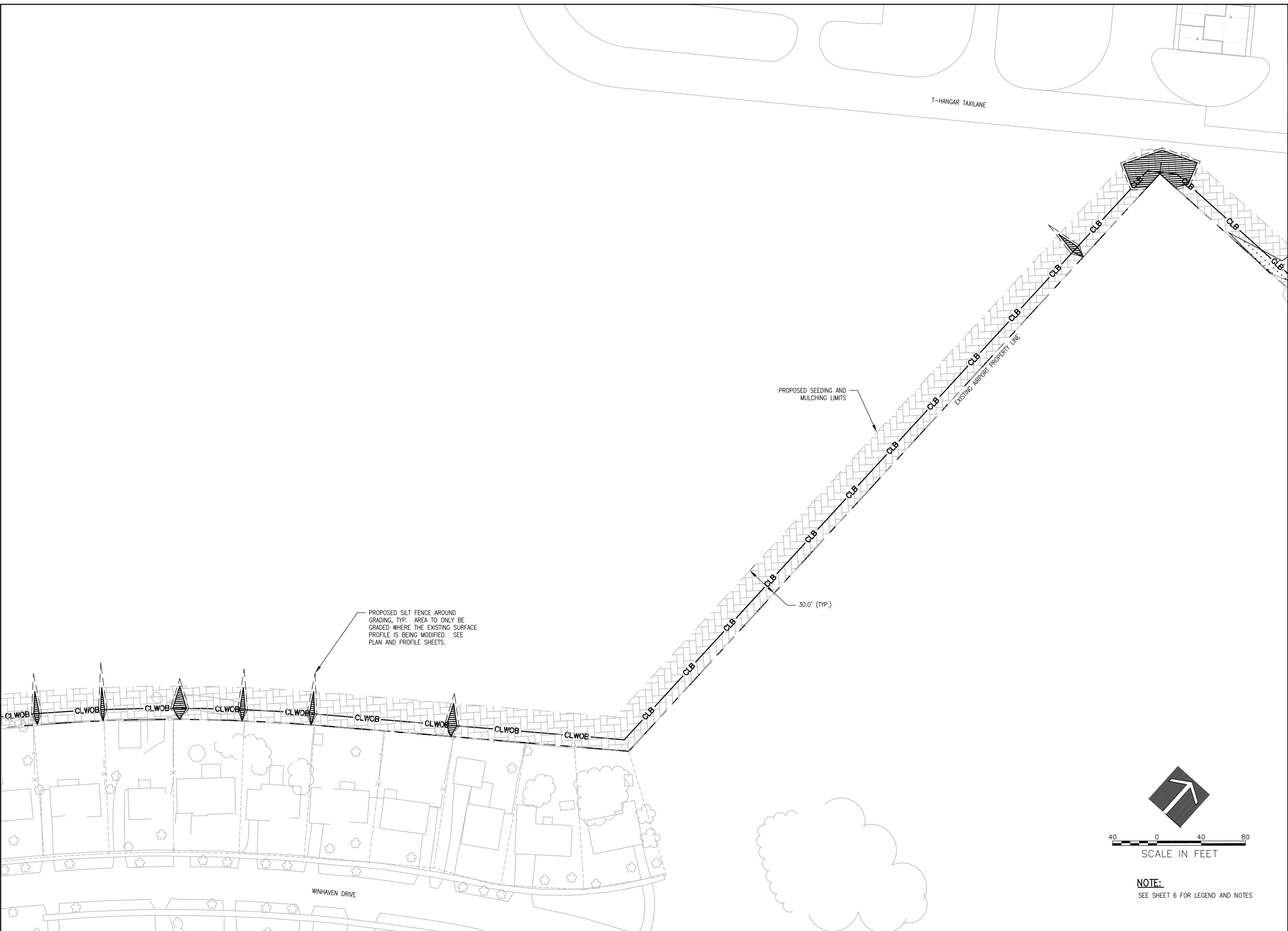


- NOTES:**
- SEEDING SHALL ONLY BE DONE IN THE WETLAND AREAS AROUND THE FENCE POSTS. NO OTHER GROUND SHALL BE DISTURBED IN THESE AREAS.
 - THE SEEDING MIX IN THE WETLAND AREAS WILL BE RYEGRASS AT A RATE OF 200 LBS/ACRE.
 - CONTRACTOR IS TO KEEP VEHICLES AND EQUIPMENT OUT OF DELINEATED WETLAND AREAS. WORK SHALL BE PERFORMED IN THESE AREAS ONLY DURING DRY PERIODS. CONTRACTOR SHALL NOT DISTURB THE WETLAND DELINEATION FLAGS.

- LEGEND:**
- X— EXISTING FENCE
 - CLB— PROPOSED CHAIN LINK FENCE WITH BARBED WIRE
 - CLWOB— PROPOSED CHAIN LINK FENCE WITHOUT BARBED WIRE
 - E— PROPOSED ELECTRICAL
 - +++++ PROPOSED FENCE REMOVAL
 - PROPOSED GATE
 - - - - - PROPOSED CHAIN LINK FENCE WITH BARBED WIRE
 - ▨ PROPOSED SELECTIVE GRADING
 - ▨ PROPOSED SEEDING AND MULCHING
 - EXISTING WETLAND AREAS (SEE NOTES)

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WA064

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 WAUKEGAN PORT DISTRICT
 3580 North McArae Road
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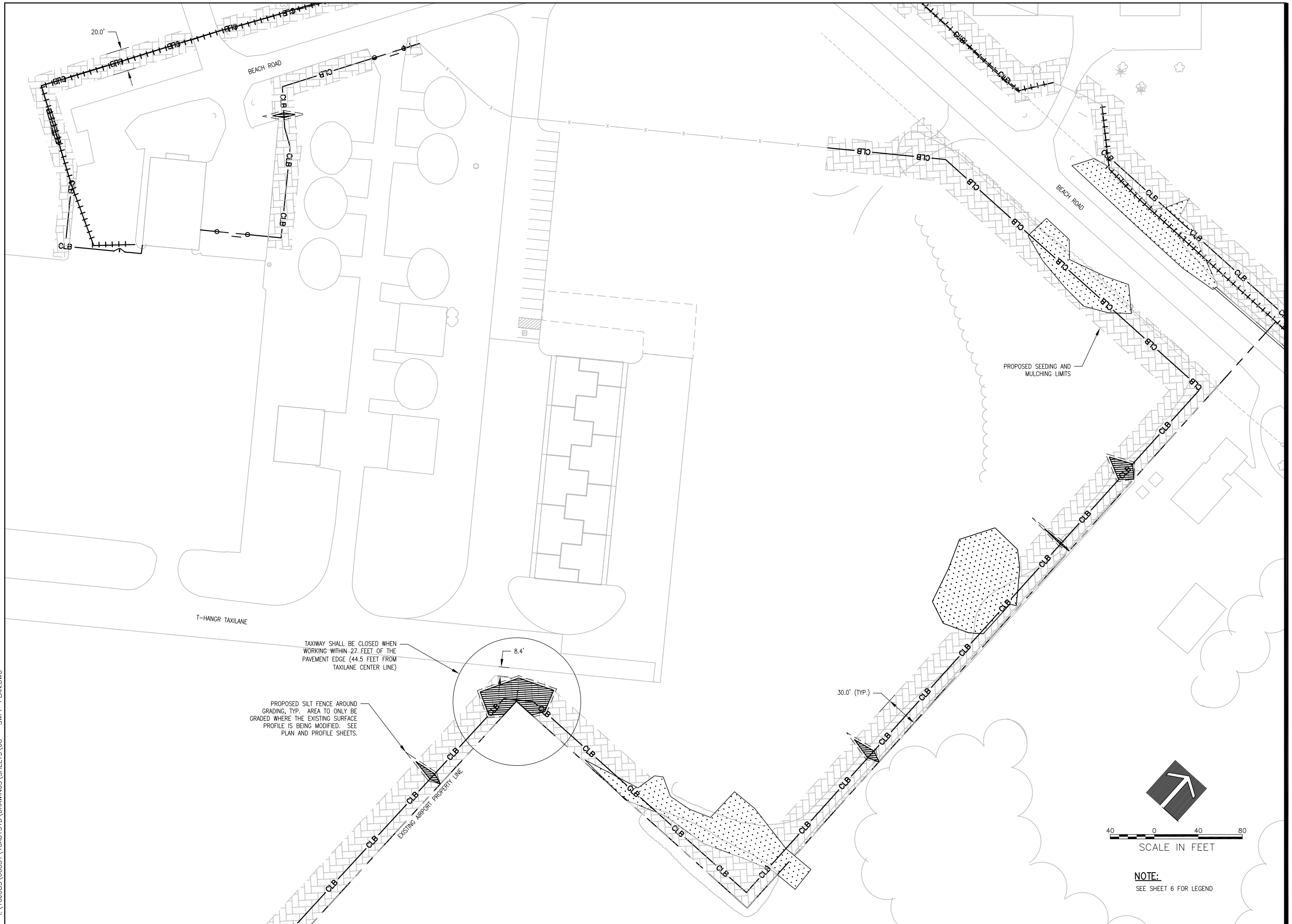


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WA064

REVISION	DATE

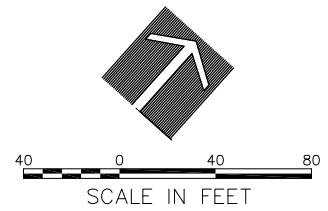
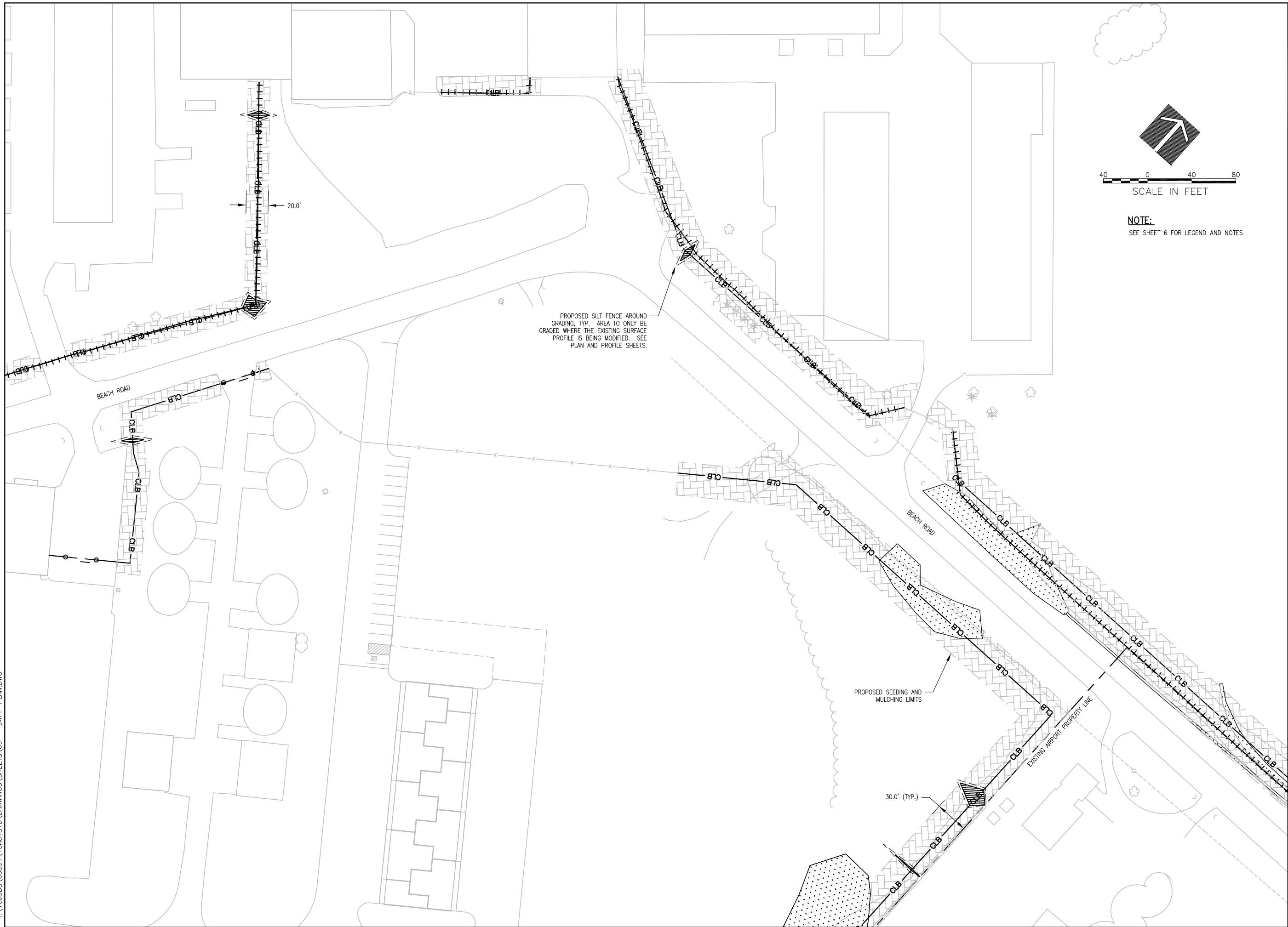
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08 - SWPP PLAN.DWG	APRIL 22, 2011	LDH	LDH

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LANDSCAPING AND
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 INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51



NOTE:
 SEE SHEET 6 FOR LEGEND AND NOTES

PROPOSED SILT FENCE AROUND
 GRADING, TYP. AREA TO ONLY BE
 GRADED WHERE THE EXISTING SURFACE
 PROFILE IS BEING MODIFIED. SEE
 PLAN AND PROFILE SHEETS.

PROPOSED SEEDING AND
 MULCHING LIMITS

30.0' (TYP.)

EXISTING AIRPORT PROPERTY LINE

BEACH ROAD

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAfee Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



Revision	Date	By	Check
LAYOUT	4/20/11	LDH	RWH
DRAWN	4/20/11	LDH	RWH
REVIEWED	4/22/11	RWH	RWH

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 Date APRIL 22, 2011

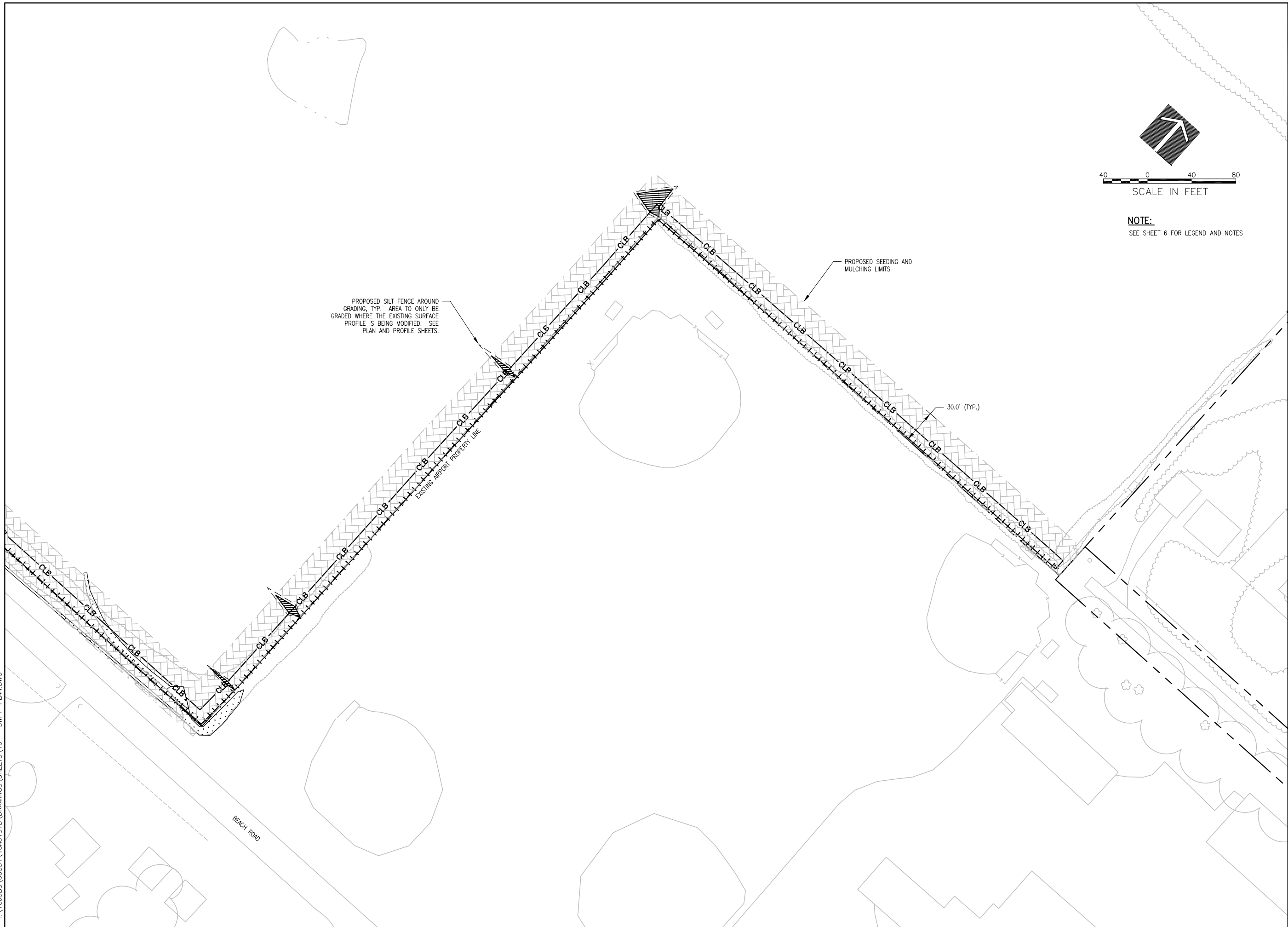
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LANDSCAPING AND
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INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

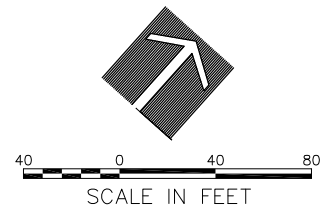
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PROPOSED SILT FENCE AROUND GRADING, TYP. AREA TO ONLY BE GRADED WHERE THE EXISTING SURFACE PROFILE IS BEING MODIFIED. SEE PLAN AND PROFILE SHEETS.

PROPOSED SEEDING AND MULCHING LIMITS

30.0' (TYP.)



NOTE:
 SEE SHEET 6 FOR LEGEND AND NOTES

WA064

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAtee Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



Revision	Date	By	Check
1	4/20/11	LDH	RWH
2	4/20/11	LDH	RWH
3	4/22/11	RWH	RWH

Hanson No. 10A0151D
 Filename 10 - SWPP PLAN.DWG
 Scale 1"=40'
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LANDSCAPING AND SWPP PLAN

INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

REVISION
DATE

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
3580 North McArees Road
Waukegan, Illinois 60087
Telephone: 847.244.0066
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Hanson No.	10A0151D	DATE	APRIL 22, 2011
Filename	12 - PLAN & PROFILE - 100	LAYOUT	LDH
Scale	1"=20'	DRAWN	LDH
Date	APRIL 22, 2011	REVIEWED	RWH

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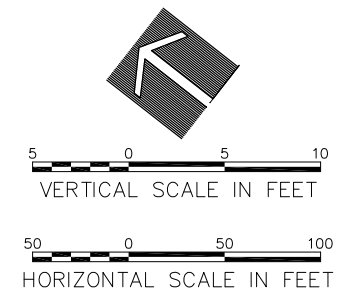
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Oak Brook, Illinois 60523

**PLAN AND PROFILE
ALIGNMENT 100**

INSTALL PERIMETER FENCE, PHASE 1
IDA No. UGN-4076 AIP No. 3-17-0105-B51

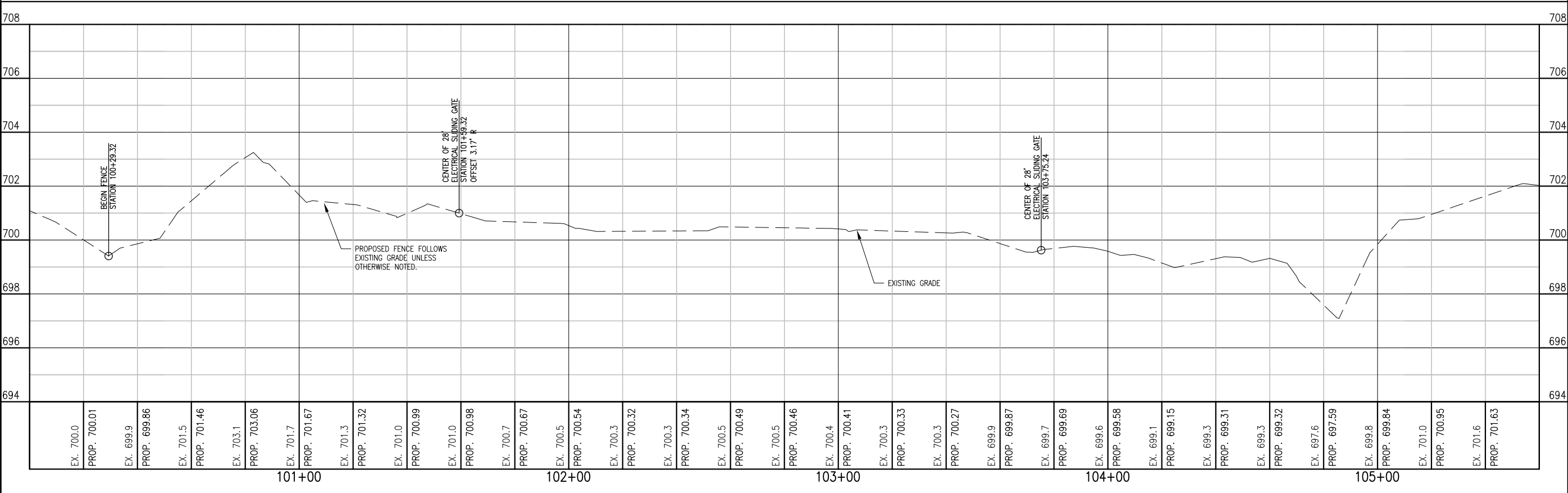
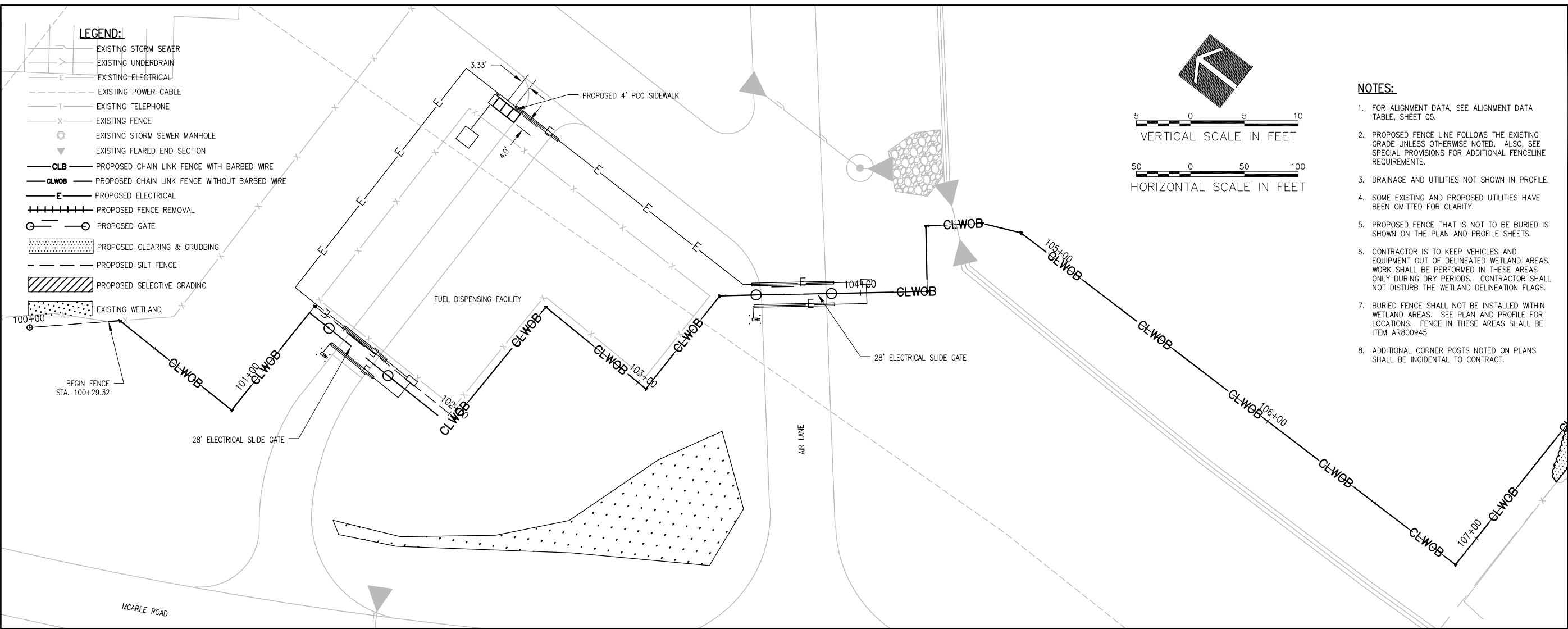
LEGEND:

- EXISTING STORM SEWER
- EXISTING UNDERDRAIN
- EXISTING ELECTRICAL
- EXISTING POWER CABLE
- EXISTING TELEPHONE
- EXISTING FENCE
- EXISTING STORM SEWER MANHOLE
- EXISTING FLARED END SECTION
- CLB - PROPOSED CHAIN LINK FENCE WITH BARBED WIRE
- CLWOB - PROPOSED CHAIN LINK FENCE WITHOUT BARBED WIRE
- E - PROPOSED ELECTRICAL
- PROPOSED FENCE REMOVAL
- PROPOSED GATE
- PROPOSED CLEARING & GRUBBING
- PROPOSED SILT FENCE
- PROPOSED SELECTIVE GRADING
- EXISTING WETLAND

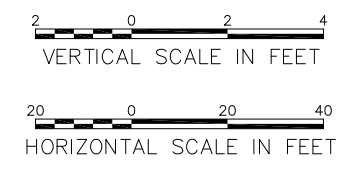
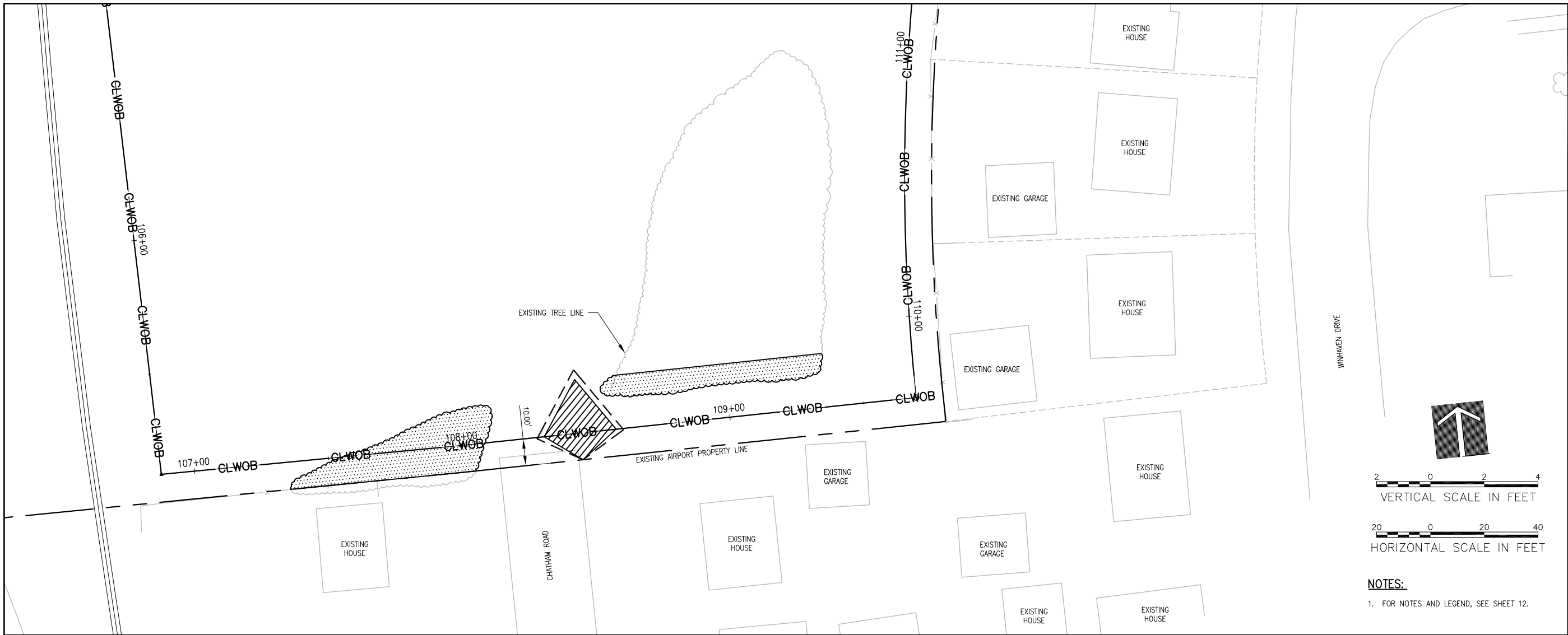


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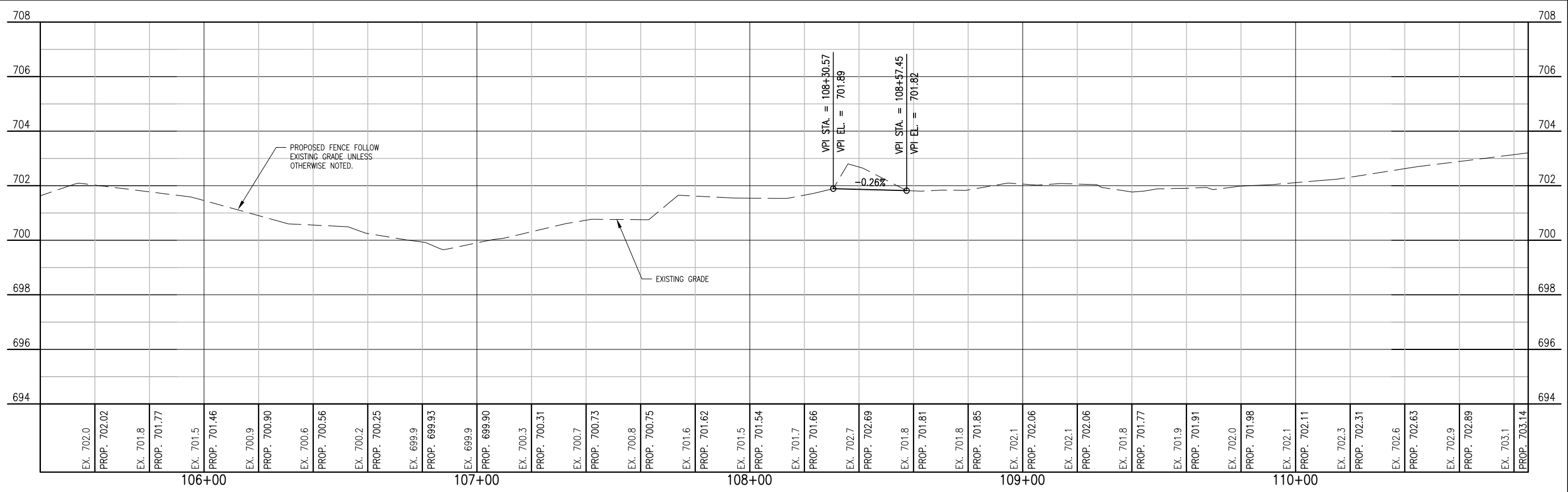
1. FOR ALIGNMENT DATA, SEE ALIGNMENT DATA TABLE, SHEET 05.
2. PROPOSED FENCE LINE FOLLOWS THE EXISTING GRADE UNLESS OTHERWISE NOTED. ALSO, SEE SPECIAL PROVISIONS FOR ADDITIONAL FENCELINE REQUIREMENTS.
3. DRAINAGE AND UTILITIES NOT SHOWN IN PROFILE.
4. SOME EXISTING AND PROPOSED UTILITIES HAVE BEEN OMITTED FOR CLARITY.
5. PROPOSED FENCE THAT IS NOT TO BE BURIED IS SHOWN ON THE PLAN AND PROFILE SHEETS.
6. CONTRACTOR IS TO KEEP VEHICLES AND EQUIPMENT OUT OF DELINEATED WETLAND AREAS. WORK SHALL BE PERFORMED IN THESE AREAS ONLY DURING DRY PERIODS. CONTRACTOR SHALL NOT DISTURB THE WETLAND DELINEATION FLAGS.
7. BURIED FENCE SHALL NOT BE INSTALLED WITHIN WETLAND AREAS. SEE PLAN AND PROFILE FOR LOCATIONS. FENCE IN THESE AREAS SHALL BE ITEM AR800945.
8. ADDITIONAL CORNER POSTS NOTED ON PLANS SHALL BE INCIDENTAL TO CONTRACT.



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NOTES:
 1. FOR NOTES AND LEGEND, SEE SHEET 12.



REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAtee Road
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Revision No.	Description	Drawn	Reviewed	Date
10	10A0151D	LDH	RWH	4/14/11
13	PLAN & PROFILE - 100	LDH	RWH	4/14/11
14	APRIL 22, 2011	LDH	RWH	4/22/11

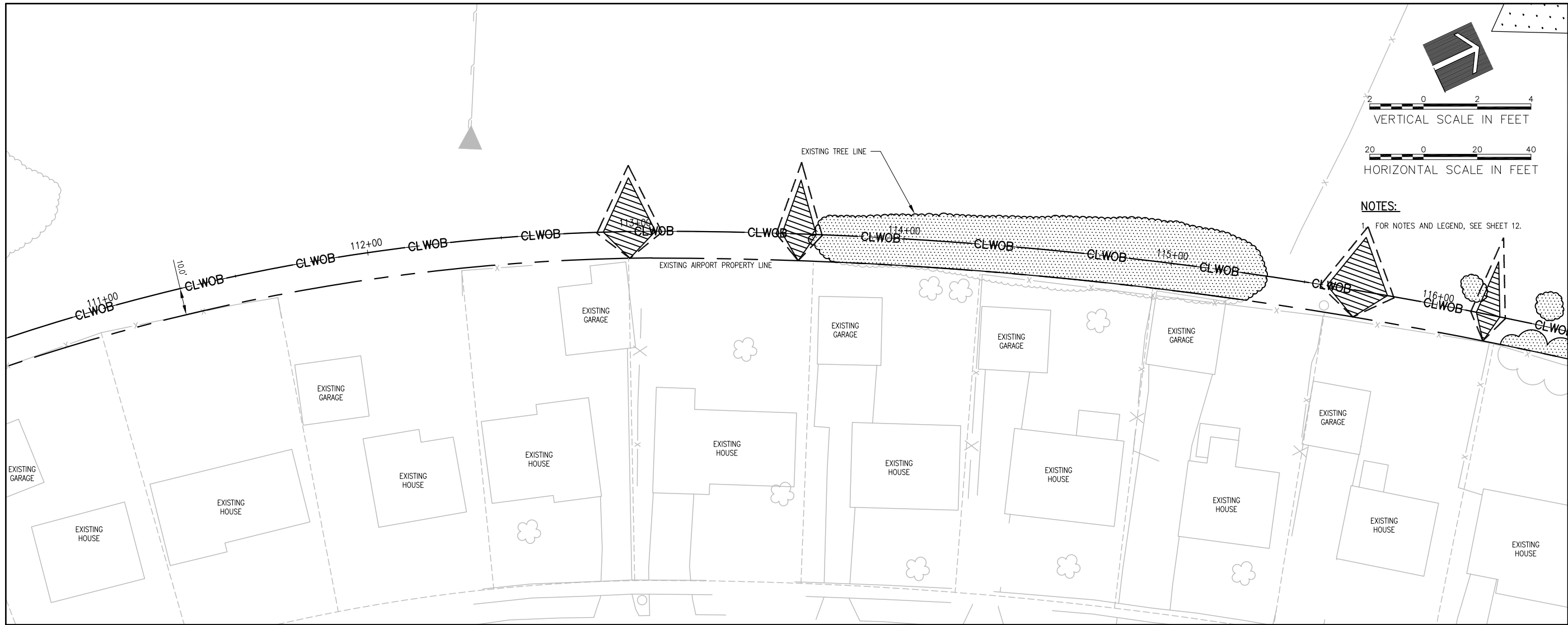
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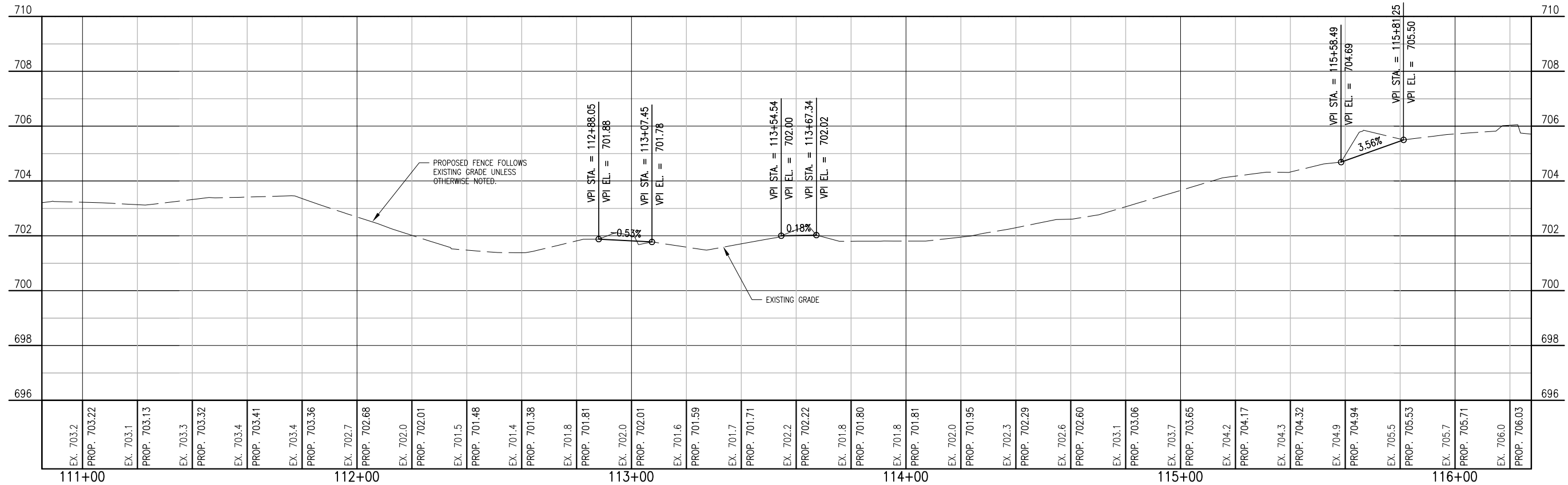
PLAN AND PROFILE
ALIGNMENT 100

INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

APR 22, 2011 3:14 PM MCLAU01058
 I:\10\05\00831\10A0151D\DRAWINGS\SHEETS\14 - PLAN & PROFILE - 100 - (3).DWG



NOTES:
 1. FOR NOTES AND LEGEND, SEE SHEET 12.



WA064

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAfee Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



Revision No.	Date	By	Checked
10A0151D	APRIL 22, 2011	LDH	RWH
14 - PLAN & PROFILE - 100	APRIL 22, 2011	LDH	RWH
LAYOUT	4/14/11	LDH	RWH
DRAWN	4/14/11	LDH	RWH
REVIEWED	4/22/11	LDH	RWH

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INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51



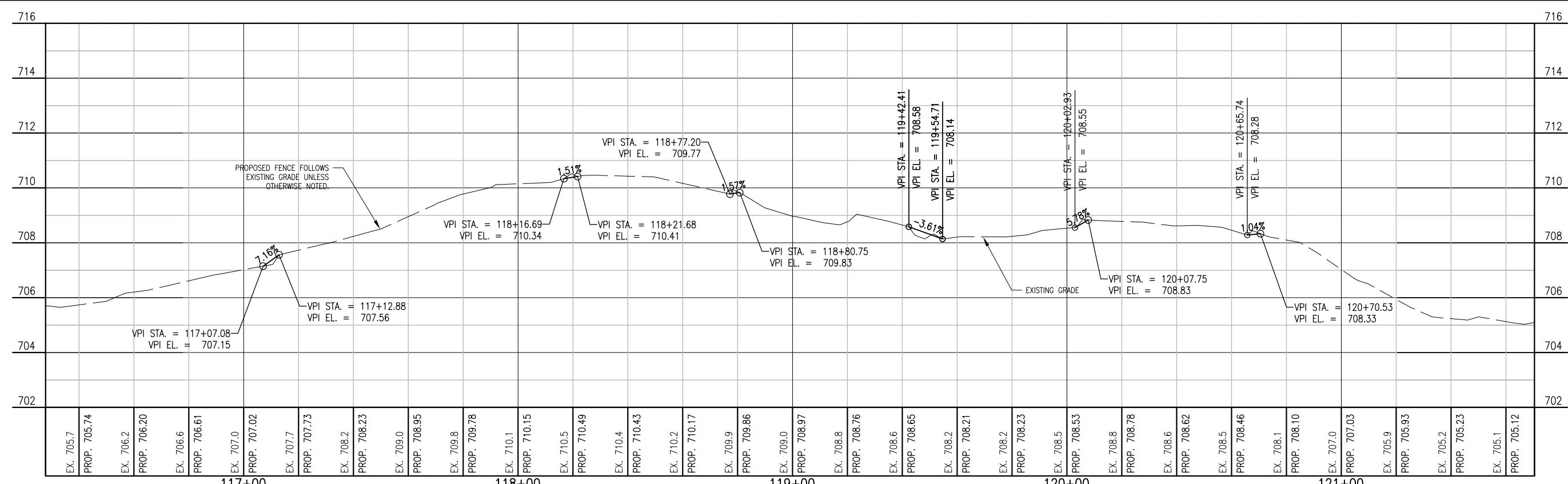
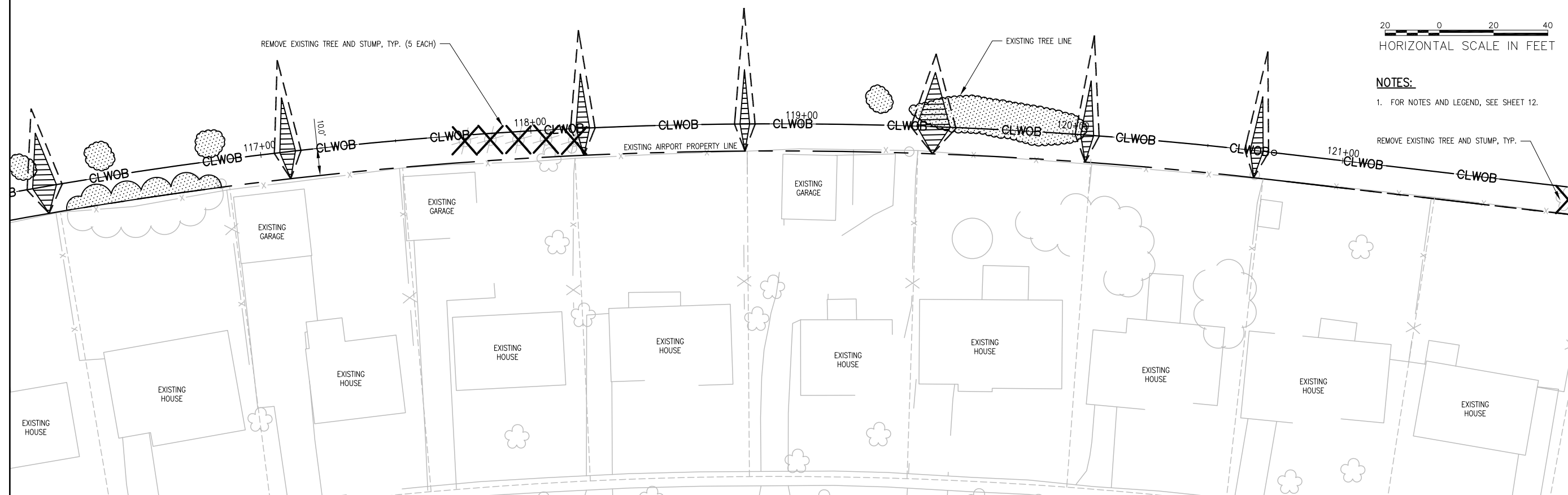
2 0 2 4
VERTICAL SCALE IN FEET

20 0 20 40
HORIZONTAL SCALE IN FEET

NOTES:

1. FOR NOTES AND LEGEND, SEE SHEET 12.

REMOVE EXISTING TREE AND STUMP, TYP.



REVISION	DATE

Waukegan Regional Airport
Waukegan Port District
3580 North McAtee Road
Waukegan, Illinois 60087
Telephone: 847.244.0066
Fax: 847.244.3813



Hanson No. 10A0151D	LDH	4/14/11
Filename 15 - PLAN & PROFILE - 100	LDH	4/14/11
Scale 1"=20'	LDH	4/14/11
Date APRIL 22, 2011	RWH	4/22/11
LAYOUT		
DRAWN		
REVIEWED		

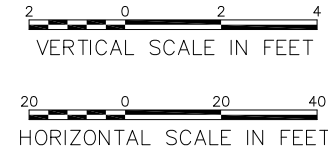
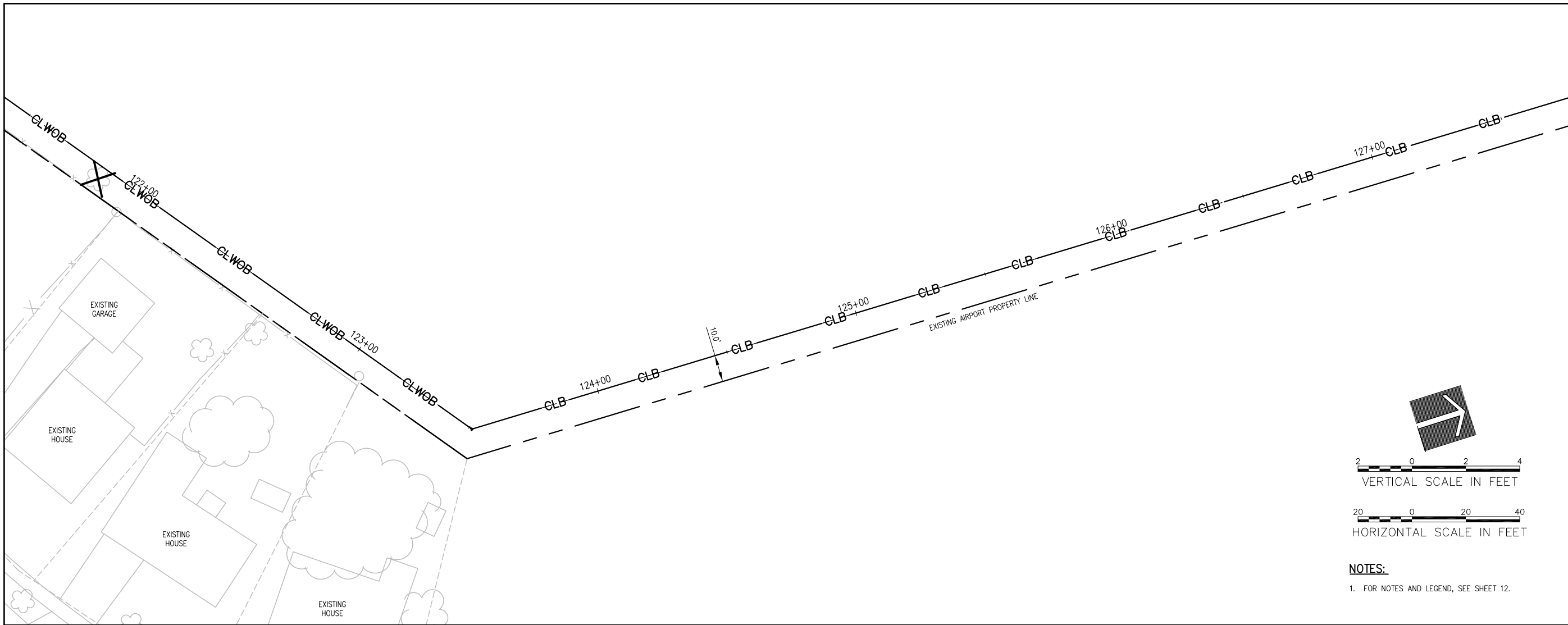
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IDA No. UGN-4076 AIP No. 3-17-0105-B51

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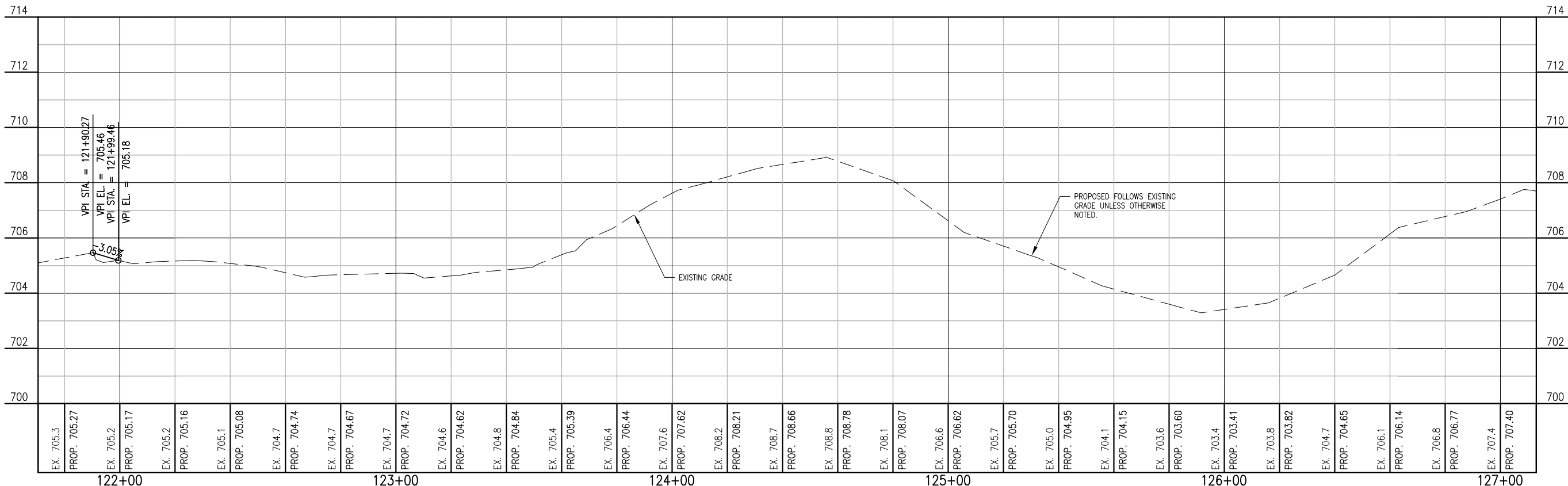
NOTES:
1. FOR NOTES AND LEGEND, SEE SHEET 12.

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAtee Road
 Waukegan, Illinois 60087
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Revision No.	10A0151D
Filename	16 - PLAN & PROFILE - 100
Scale	1"=20'
Date	APRIL 22, 2011

LAYOUT	LDH	4/14/11
DRAWN	LDH	4/14/11
REVIEWED	RWH	4/22/11



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 IDA No. UGN-4076 AIP No. 3-17-0105-551

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REVISION
DATE

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
3580 North McAree Road
Waukegan, Illinois 60087
Telephone: 847.244.0066
Fax: 847.244.3813

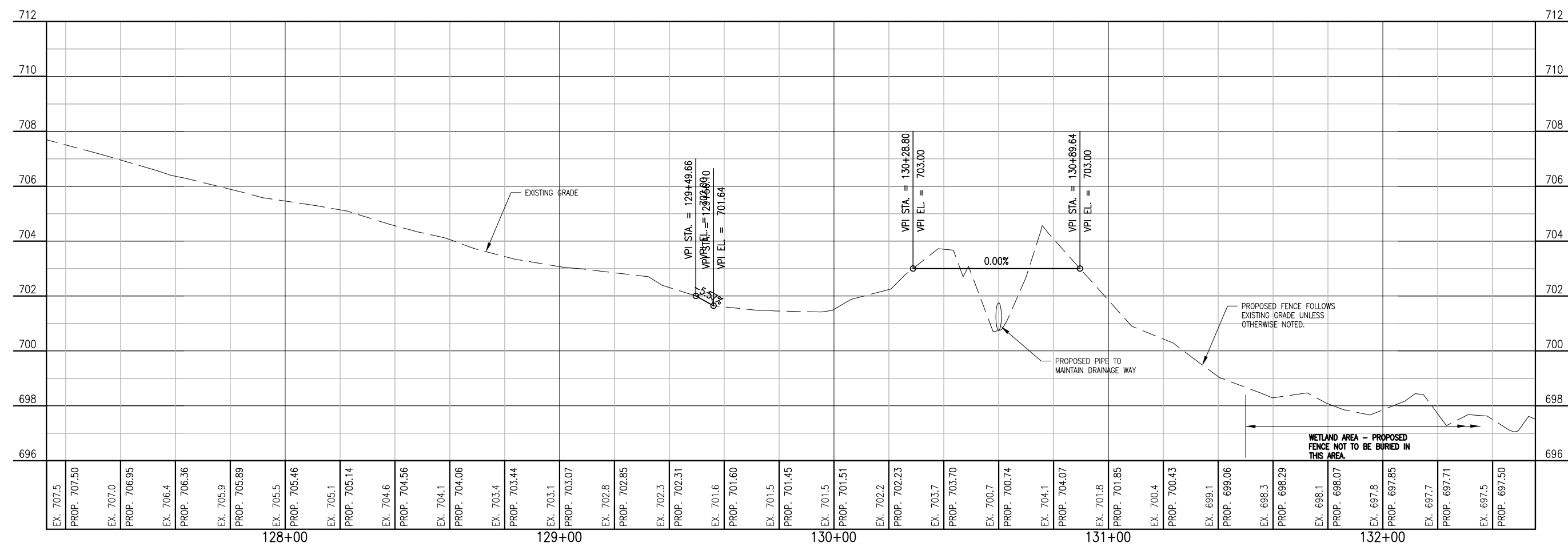
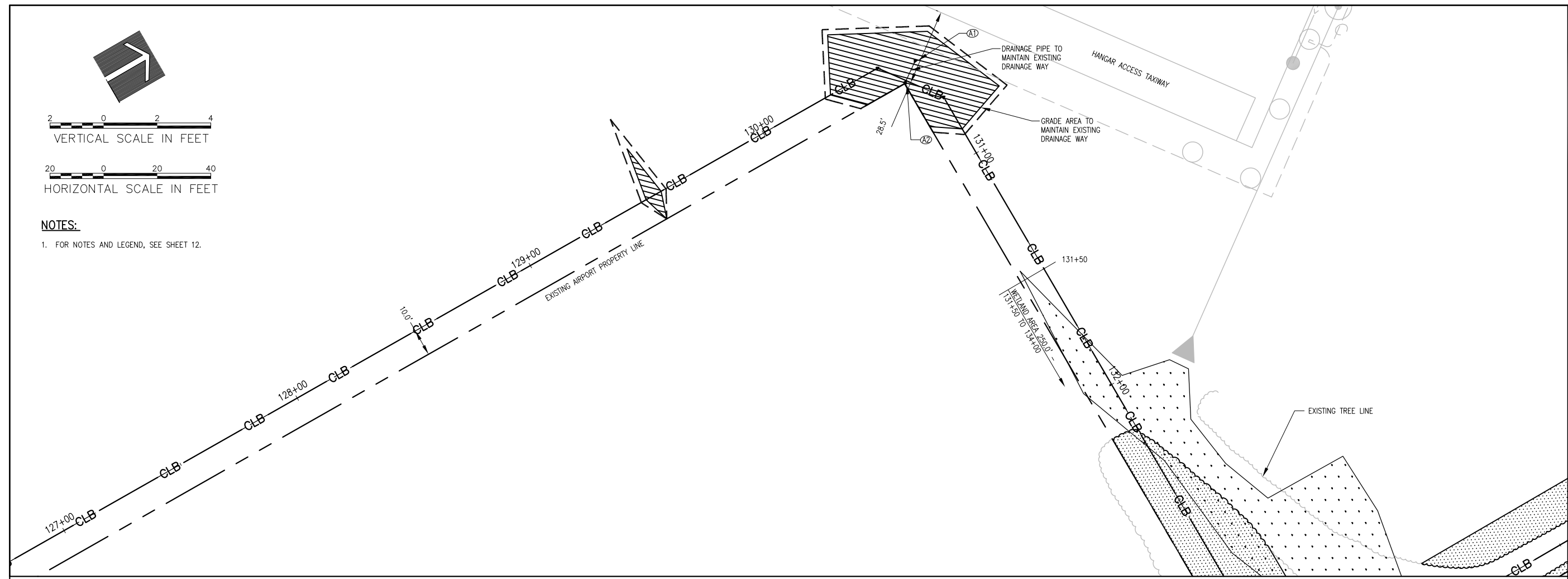


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Scale	1"=20'	Date	APRIL 22, 2011
LAYOUT	LDH	4/14/11	
DRAWN	LDH	4/14/11	
REVIEWED	RWH	4/22/11	

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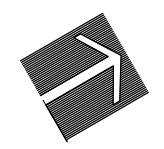
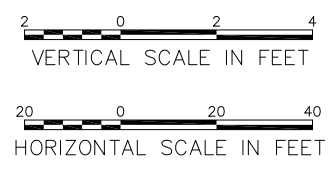
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ALIGNMENT 100**

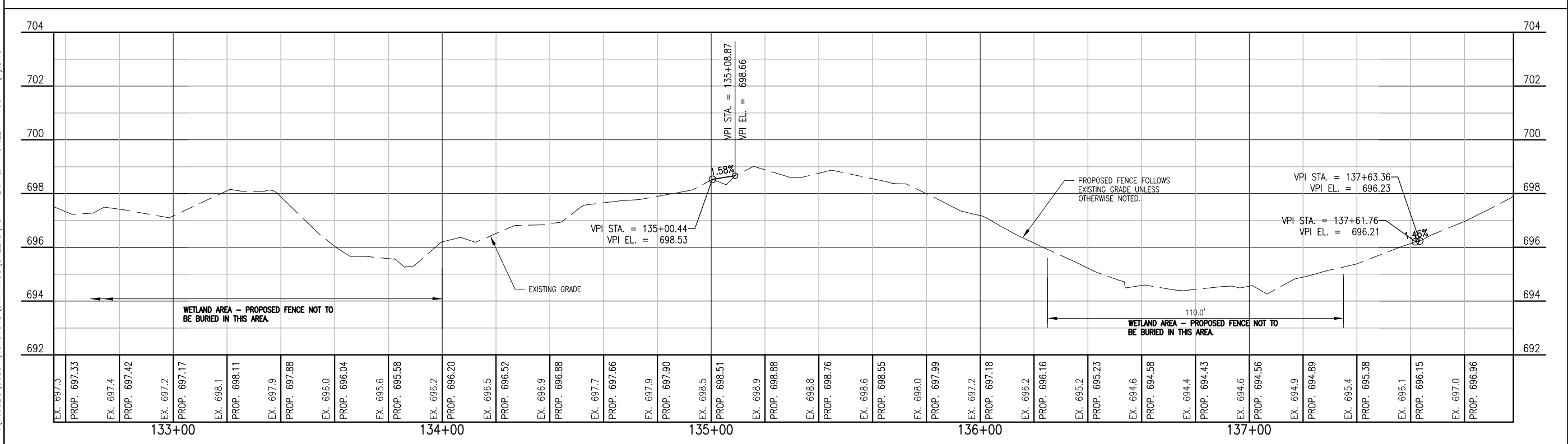
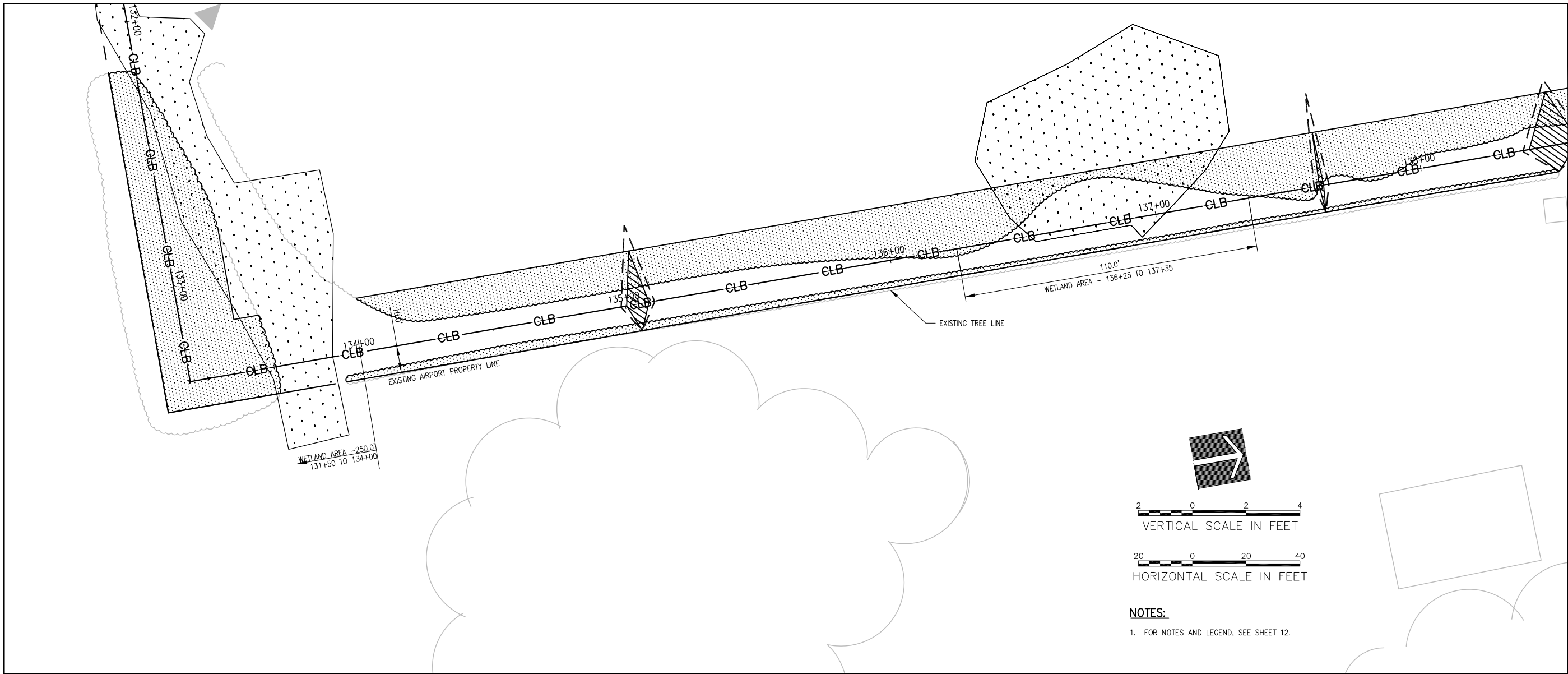
INSTALL PERIMETER FENCE, PHASE 1
IDA No. UGN-4076 AIP No. 3-17-0105-B51



APR 22, 2011 3:24 PM MCLAU01058
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NOTES:
1. FOR NOTES AND LEGEND, SEE SHEET 12.





WA064

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
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Hanson No. 10A0151D
 File No. 18 - PLAN & PROFILE - 100
 Scale 1"=40'
 Date APRIL 22, 2011

LAYOUT	LDH	4/14/11
DRAWN	LDH	4/14/11
REVIEWED	RWH	4/22/11

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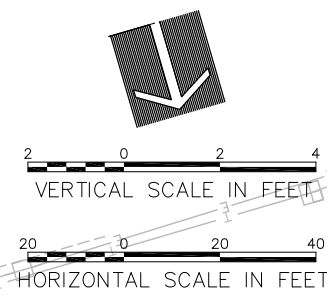
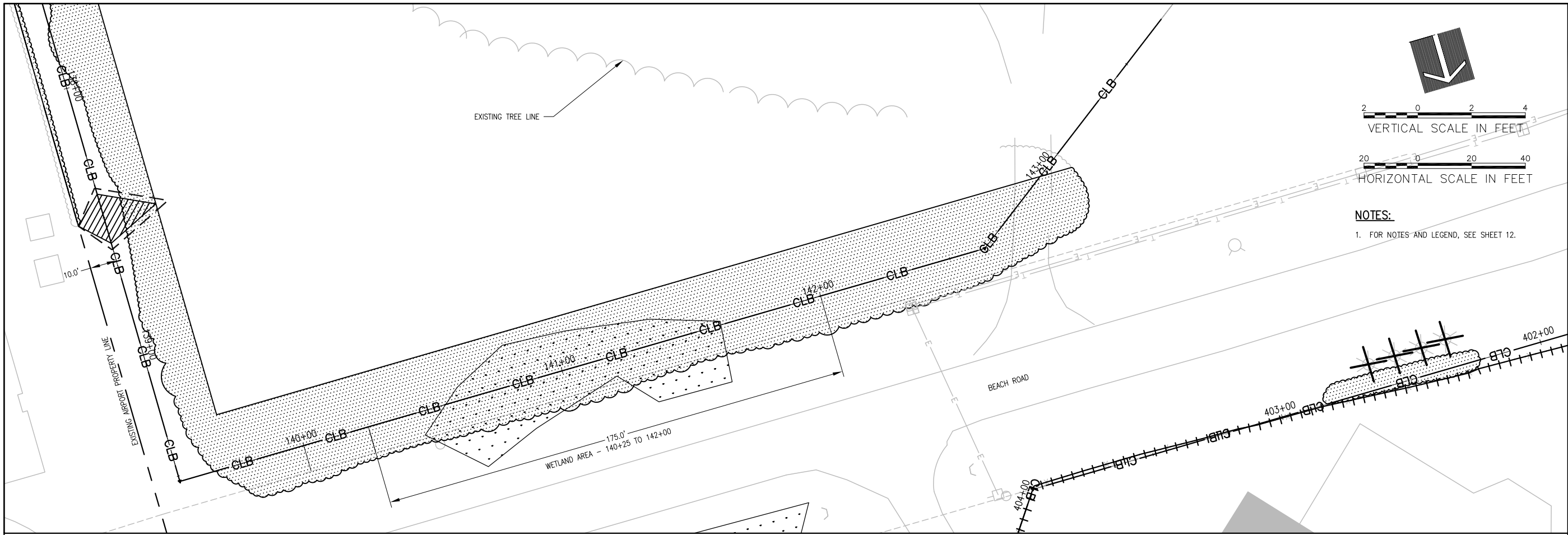
Hanson Professional Services Inc.
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PLAN AND PROFILE
ALIGNMENT 100

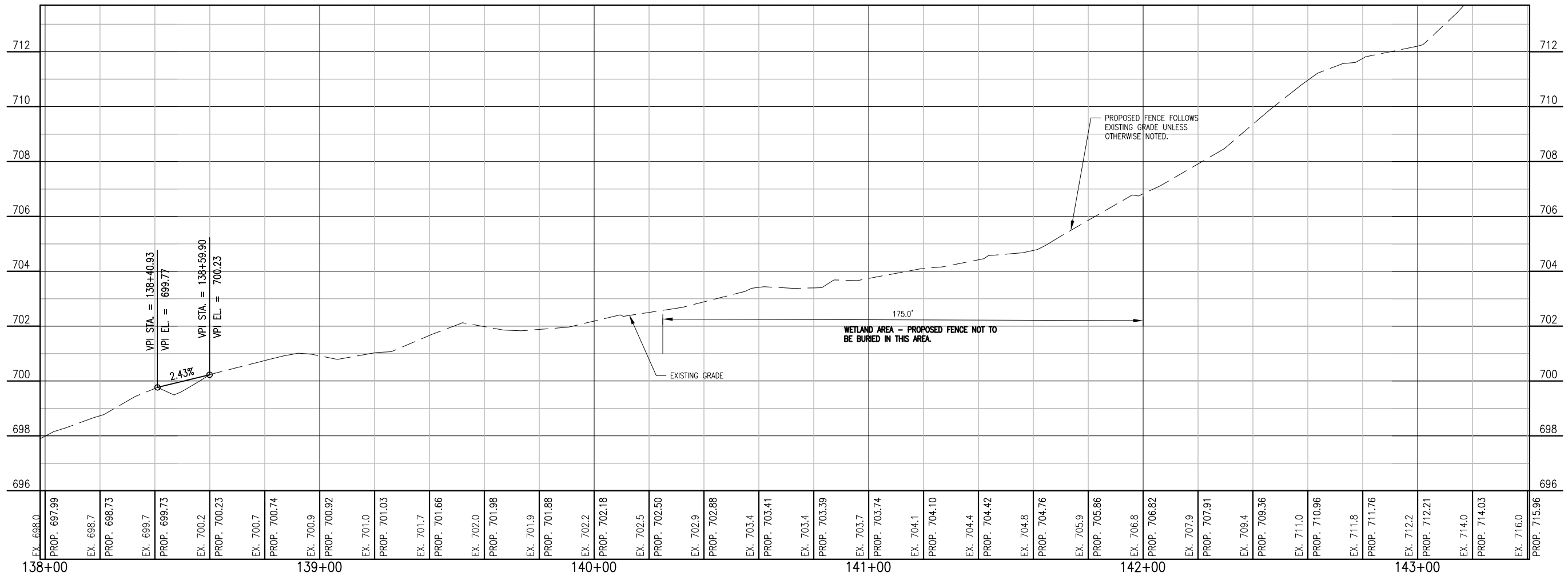
INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

18
 18 of 40 sheets

APR 22, 2011 3:17 PM MCLAU01058
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NOTES:
 1. FOR NOTES AND LEGEND, SEE SHEET 12.



WA064

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAtee Road
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Hanson No. 10A0151D	LDH	4/14/11
Filename 19 - PLAN & PROFILE - 100	LDH	4/14/11
Scale 1"=20'	RWH	4/22/11
Date APRIL 22, 2011		
LAYOUT		
DRAWN		
REVIEWED		

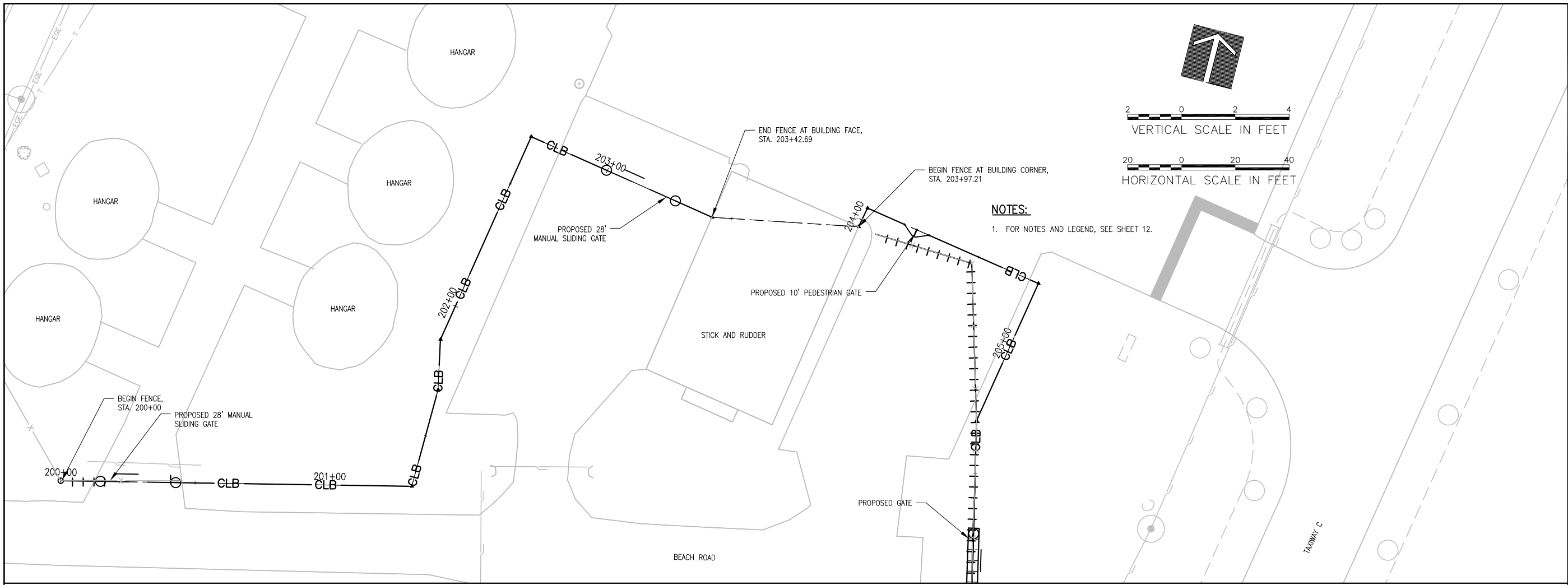
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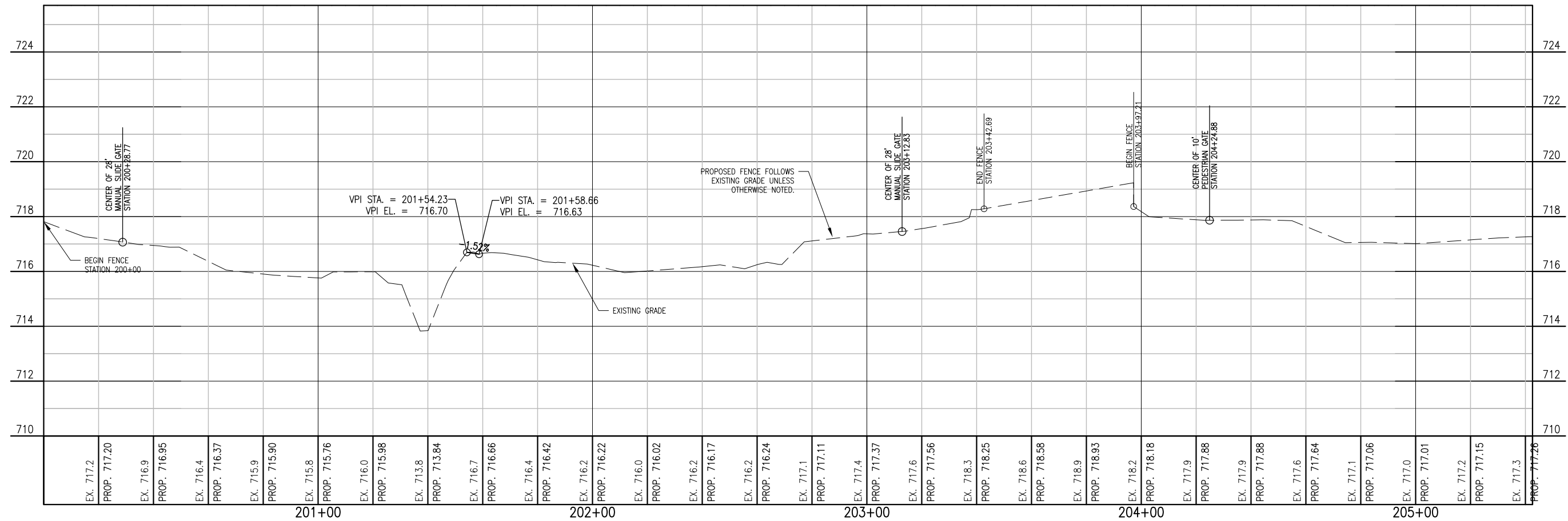
PLAN AND PROFILE
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INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

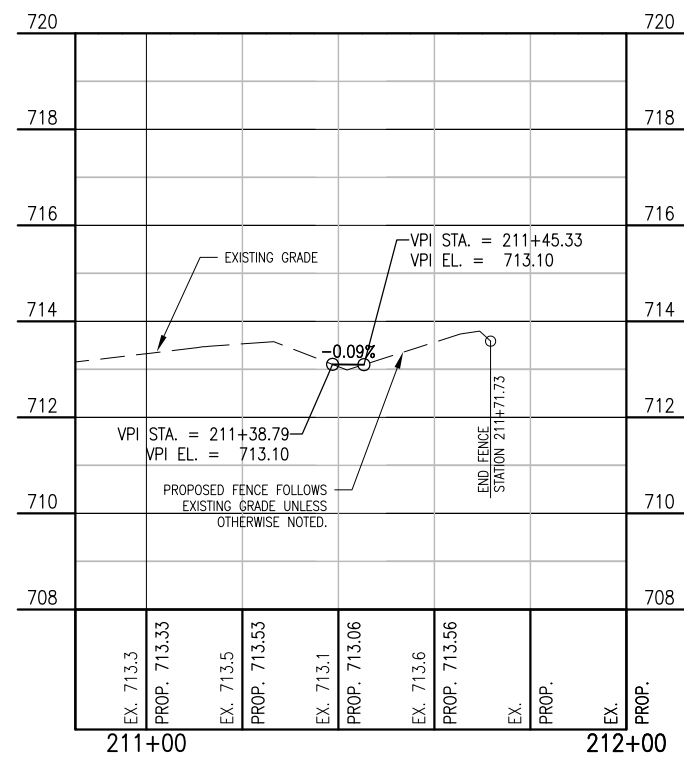
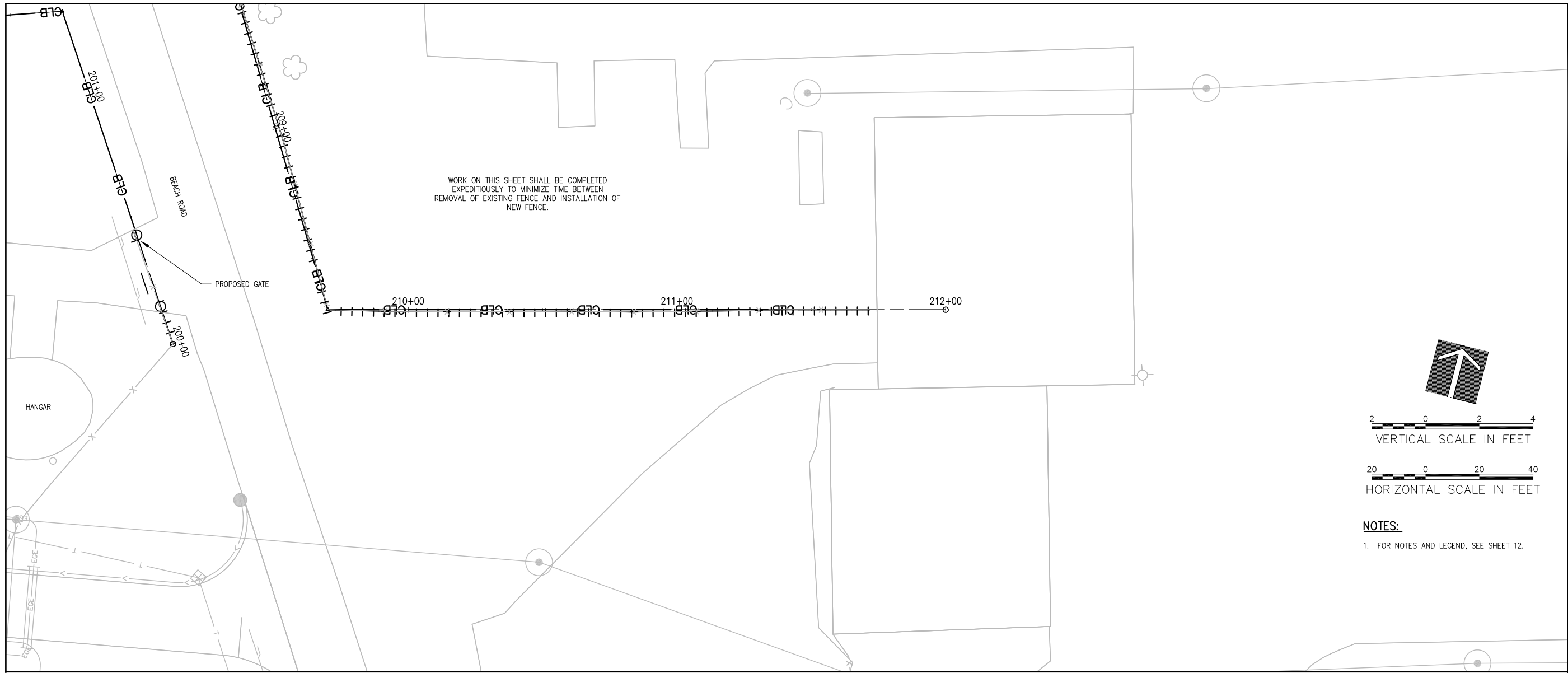
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NOTES:
 1. FOR NOTES AND LEGEND, SEE SHEET 12.



<p>WA064</p>	
<p>REVISION</p>	<p>DATE</p>
<p>WAUKEGAN REGIONAL AIRPORT WAUKEGAN PORT DISTRICT 3580 North McAtee Road Waukegan, Illinois 60087 Telephone: 847.244.0066 Fax: 847.244.3813</p>	
<p>Hanson No. 10A0151D Filename 21 - PLAN & PROFILE - 200 Scale 1"=20' Date APRIL 22, 2011</p>	<p>LAYOUT LDH 4/14/11 DRAWN LDH 4/14/11 REVIEWED RMH 4/22/11</p>
<p>HANSON Copyright Hanson Professional Services Inc. 2011 Illinois Professional Design Firm Registration No. 184-001084</p>	
<p>PLAN AND PROFILE ALIGNMENT 200</p>	
<p>INSTALL PERIMETER FENCE, PHASE 1 IDA No. UGN-4076 AIP No. 3-17-0105-B51</p>	
<p>21 21 of 40 sheets</p>	



REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAfee Road
 Waukegan, Illinois 60087
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Hanson No. 10A0151D	FILENAME 23 - PLAN & PROFILE - 200	DATE APRIL 22, 2011	LAYOUT LDH	4/14/11
Scale 1"=20'	Scale 1"=20'	DATE APRIL 22, 2011	DRAWN LDH	4/14/11
			REVIEWED RWH	4/22/11

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INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

REVISION	DATE

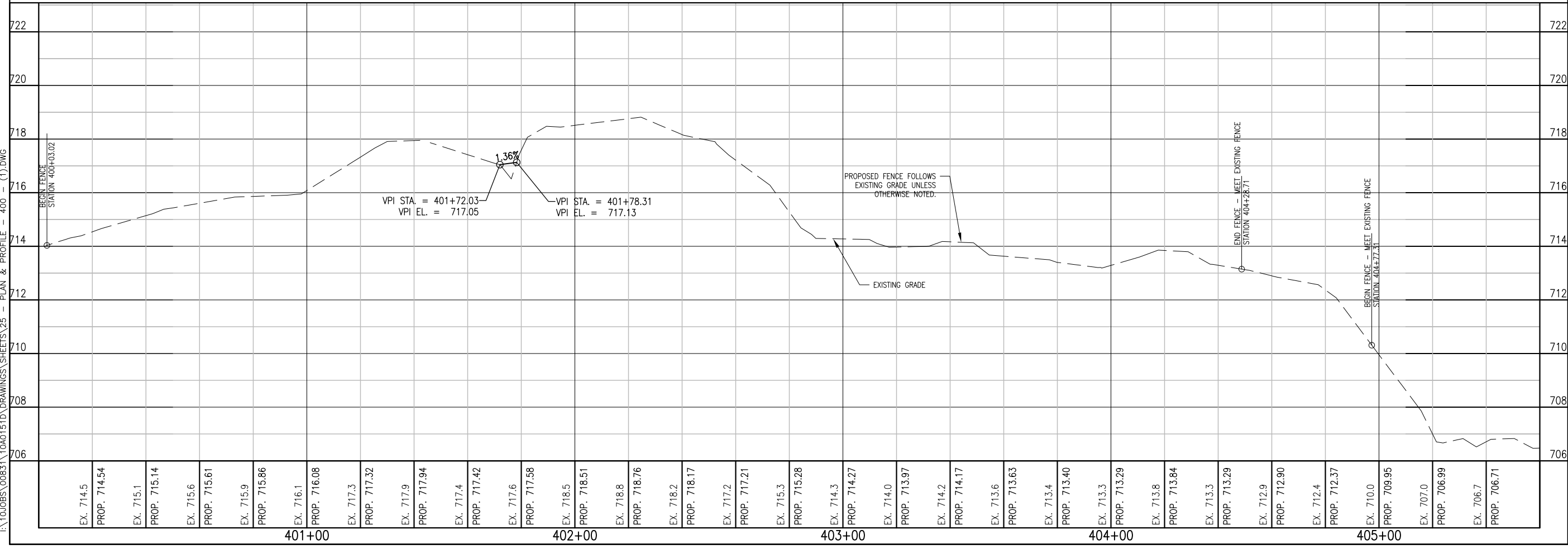
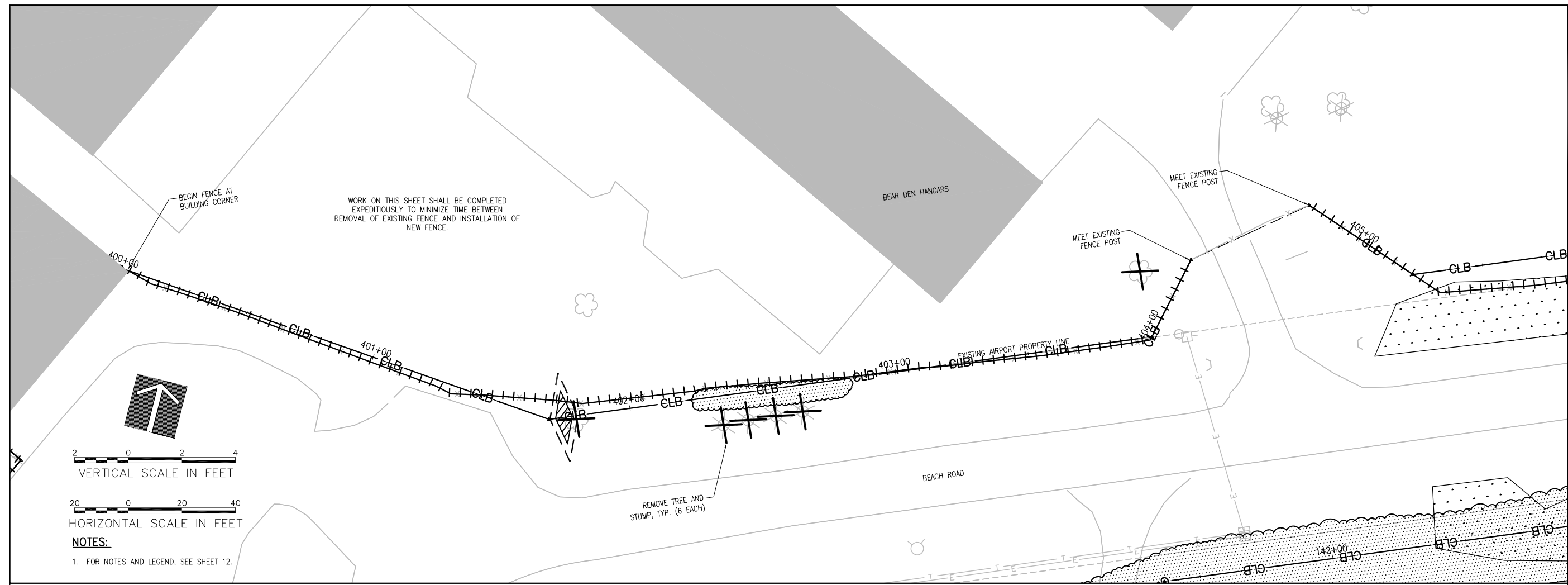
WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAtee Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



Hanson No. 10A0151D	File Name 25 - PLAN & PROFILE - 400	LAYOUT	LDH	4/14/11
Scale 1"=20'	Date APRIL 22, 2011	DRAWN	LDH	4/14/11
		REVIEWED	RWH	4/22/11

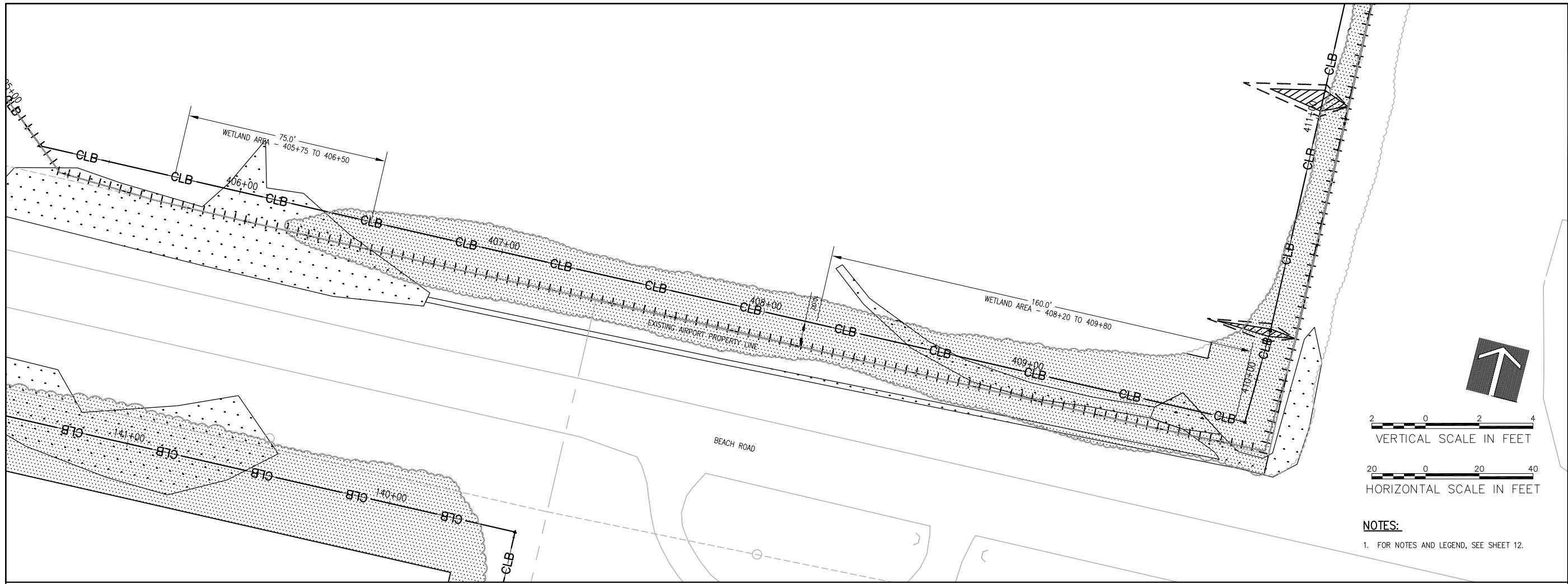
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INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

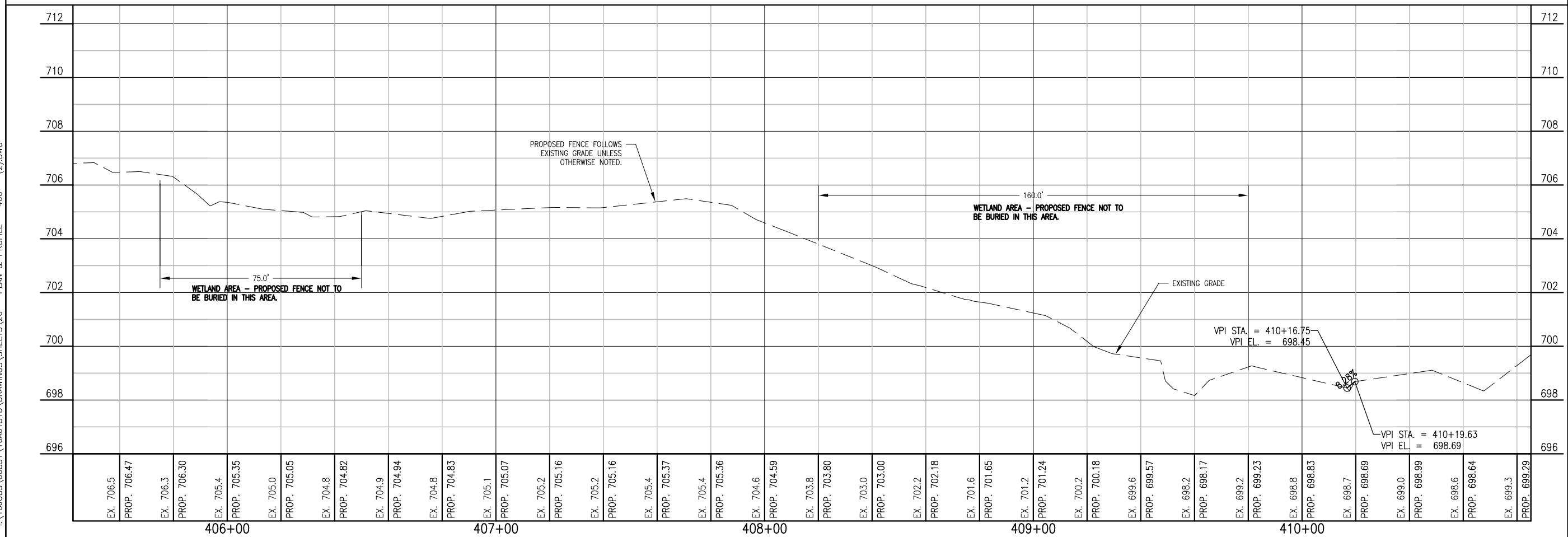


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APR 22, 2011 3:40 PM MCLAU01058
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NOTES:
 1. FOR NOTES AND LEGEND, SEE SHEET 12.



REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAtee Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813

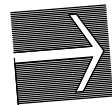
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Filename 26 - PLAN & PROFILE - 400	LDH	4/14/11
Scale 1"=20'	RWH	4/22/11
Date APRIL 22, 2011		
LAYOUT		
DRAWN		
REVIEWED		

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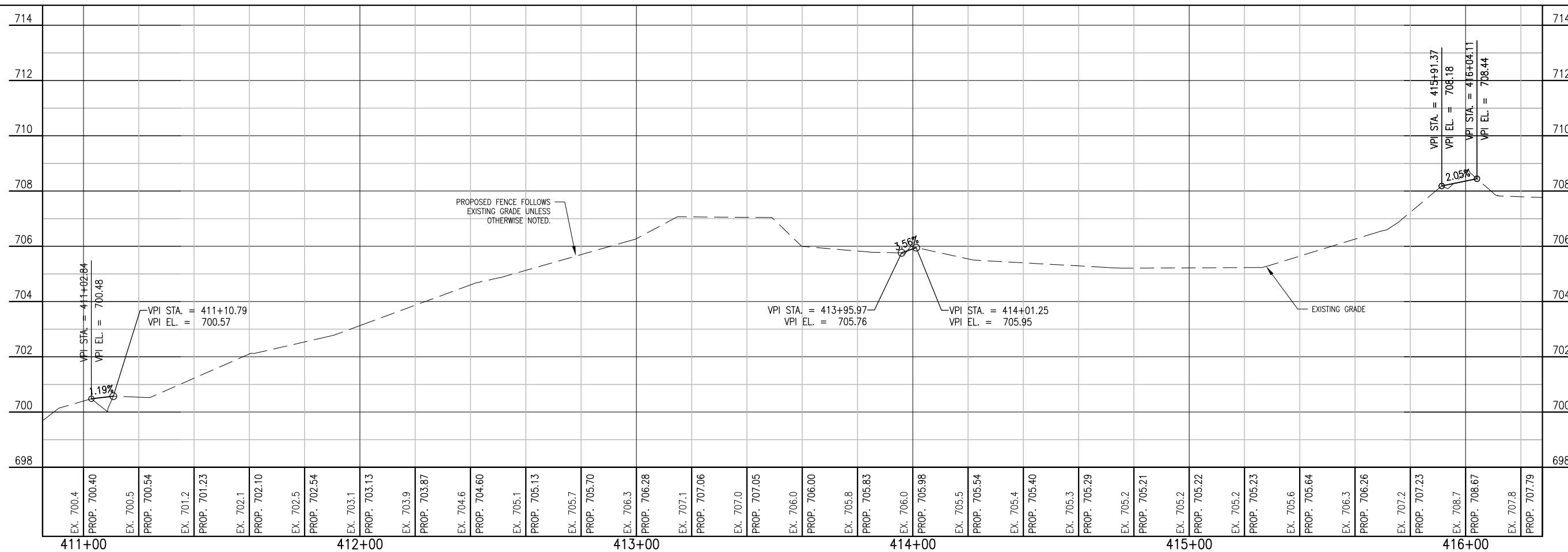
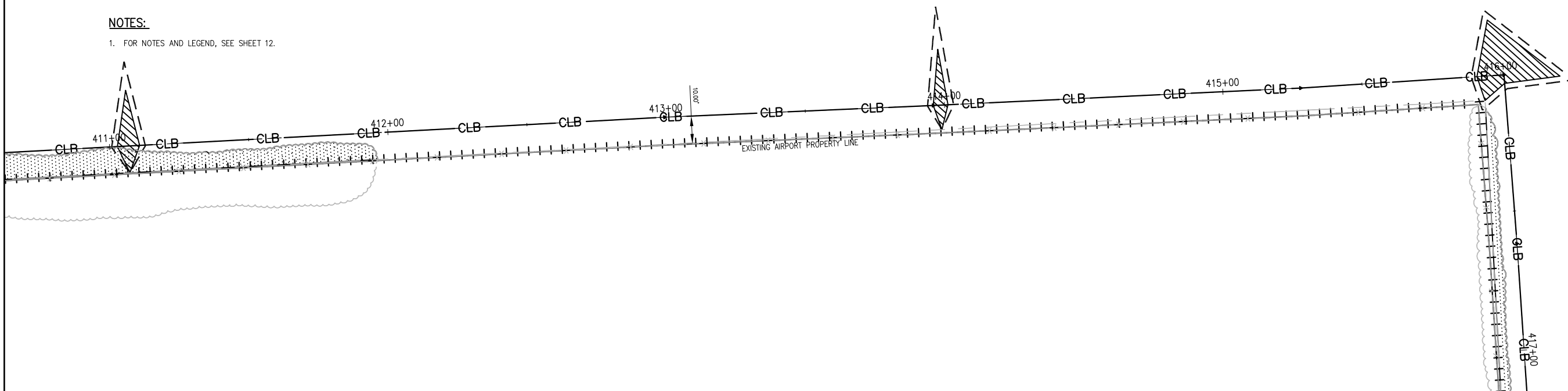
PLAN AND PROFILE
ALIGNMENT 400

INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51



NOTES:

1. FOR NOTES AND LEGEND, SEE SHEET 12.



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REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
3580 North McAfee Road
Waukegan, Illinois 60087
Telephone: 847.244.0066
Fax: 847.244.3813

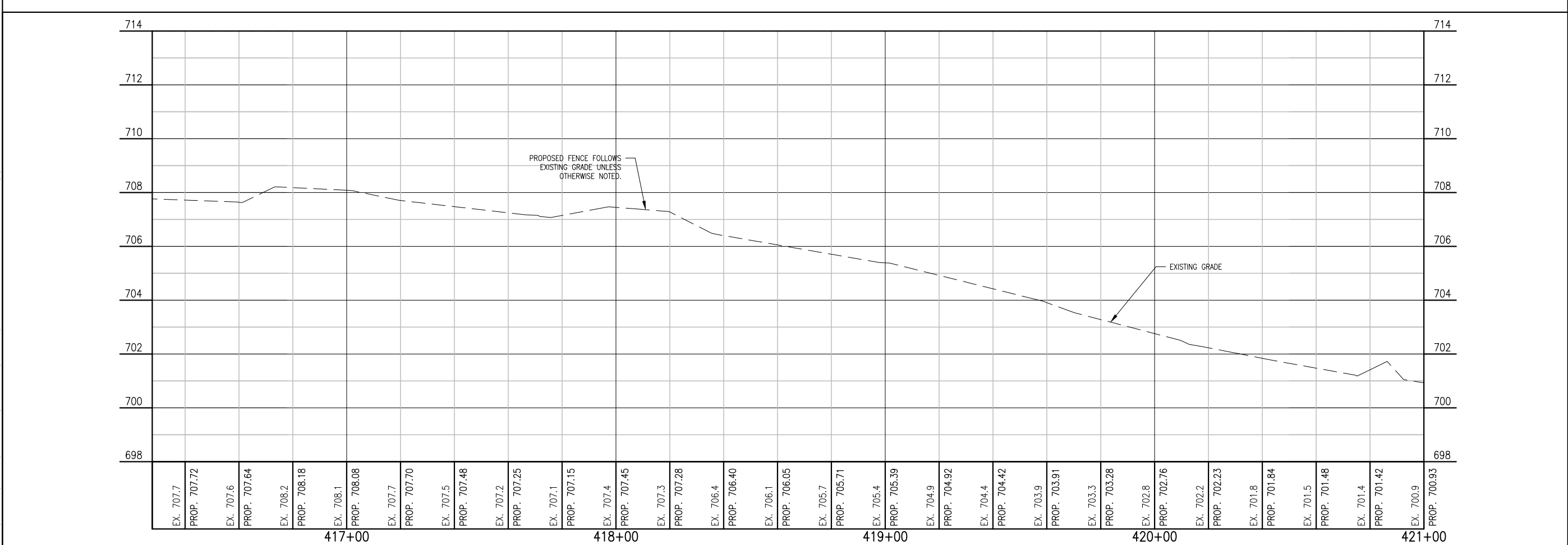
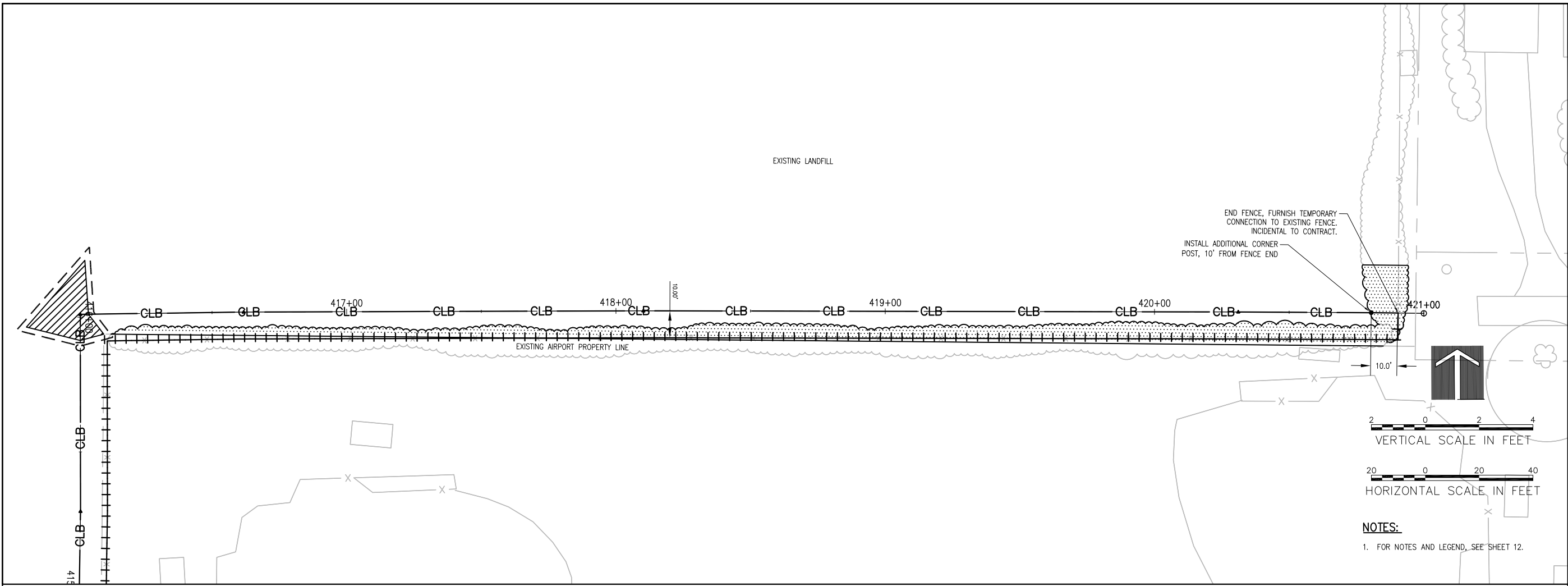
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Scale 1"=20'	Date APRIL 22, 2011
LAYOUT	LDH 4/14/11
DRAWN	LDH 4/14/11
REVIEWED	RWH 4/22/11

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WA064

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAtee Road
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Hanson No. 10A0151D	LAYOUT	LDH	4/14/11
Filename 28 - PLAN & PROFILE - 400	DRAWN	LDH	4/14/11
Scale 1"=40'	REVIEWED	RWH	4/22/11
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 IDA No. UGN-4076 AIP No. 3-17-0105-B51

28

28 of 40 sheets

REVISION

DATE

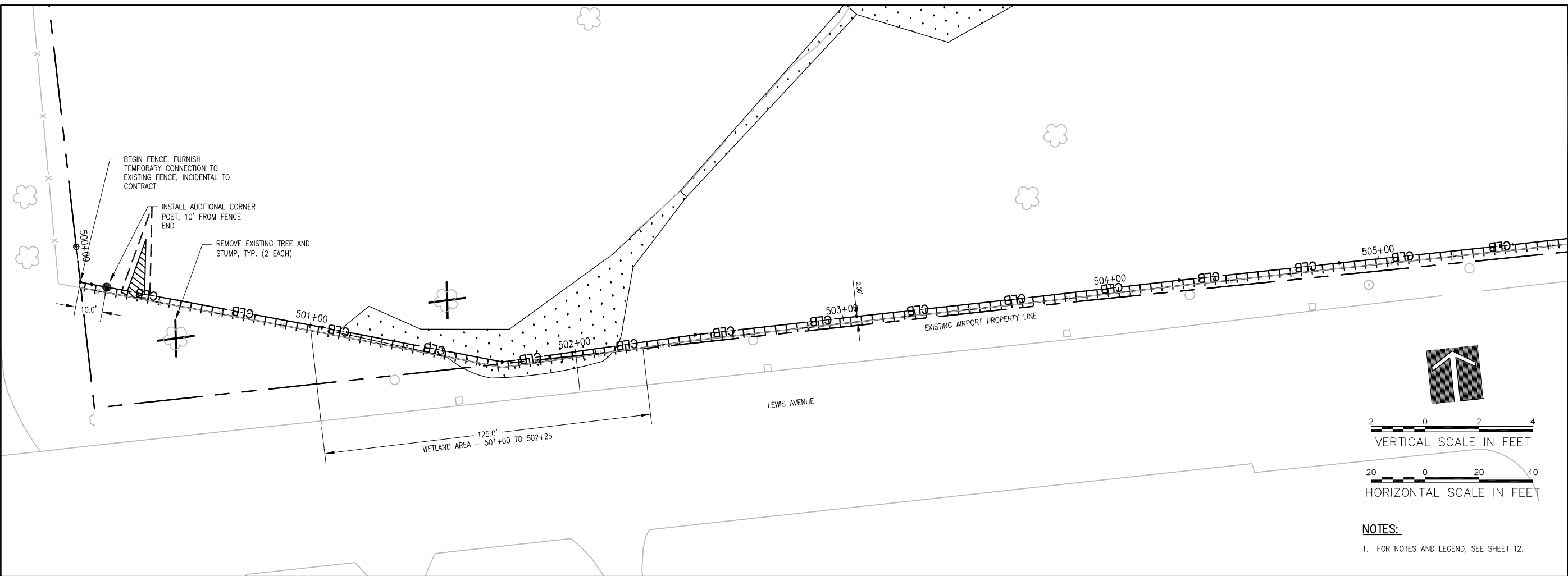
WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAfee Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



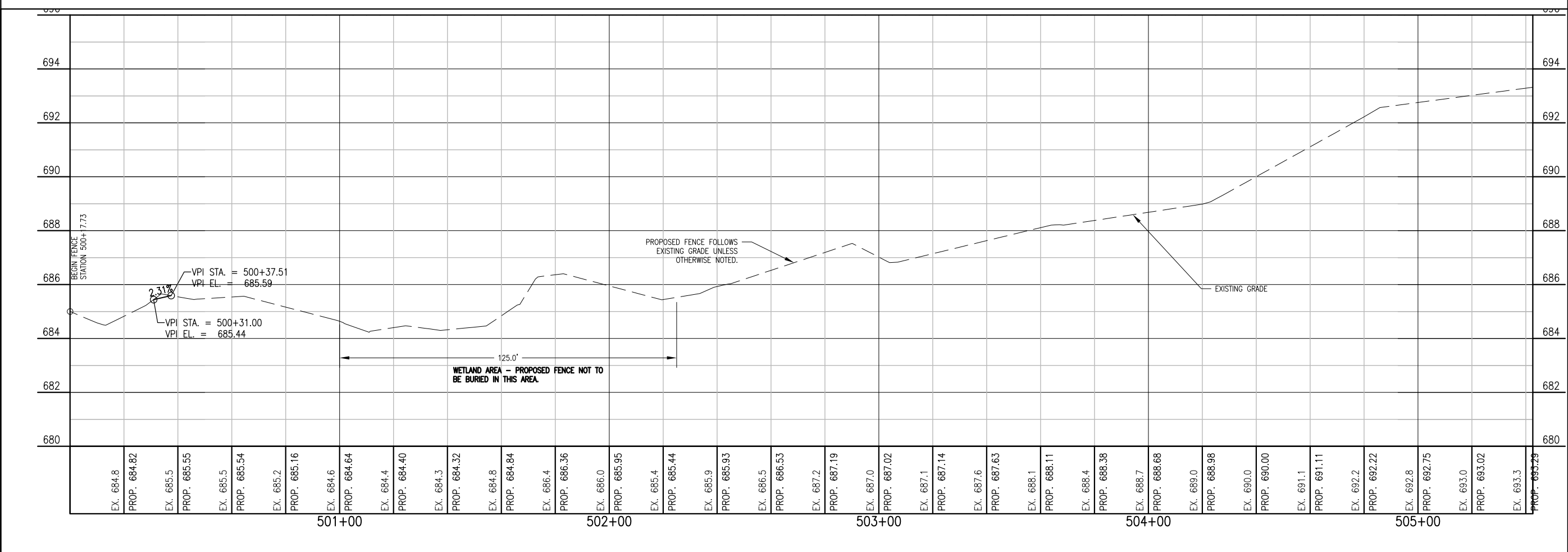
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Filename	29 - PLAN & PROFILE - 500	DRAWN	LDH	4/14/11
Scale	1"=20'	REVIEWED	RWH	4/22/11
Date	APRIL 22, 2011			

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PLAN AND PROFILE
ALIGNMENT 500
INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51



NOTES:
 1. FOR NOTES AND LEGEND, SEE SHEET 12.



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REVISION

DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAra Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



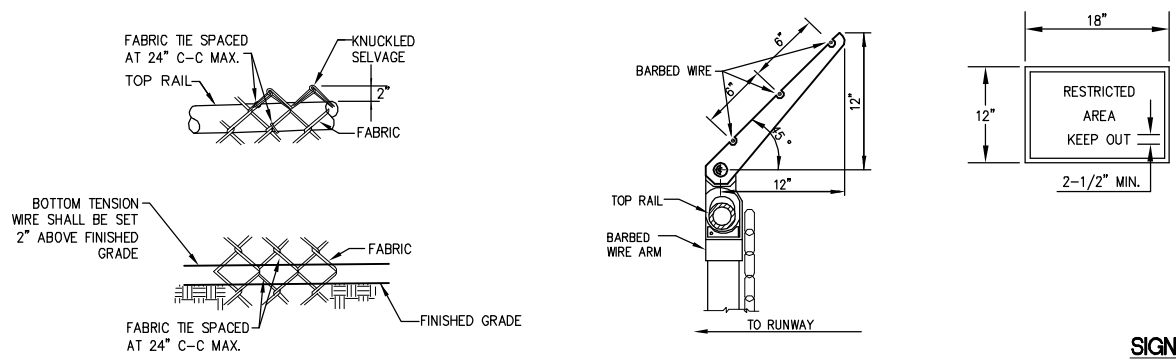
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 Filename: 31 - FENCING DETAILS.DWG
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 Date: APRIL 22, 2011

LAYOUT	LDH	3/15/11
DRAWN	LDH	3/15/11
REVIEWED	RWH	4/22/11

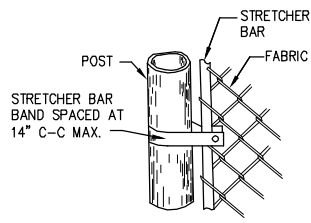
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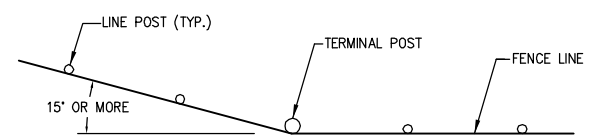
FENCE DETAILS



- 0.08 GA. ALUMINUM ALLOY SHEET
 (LETTERING COLOR SHALL BE RED ON
 WHITE BACKGROUND.)
- NOTES:**
1. EACH GATE SHALL REQUIRE ONE SIGN.
 2. EVERY 100' OF FENCE SHALL REQUIRE ONE SIGN.
 3. COST OF THESE SIGNS AND THEIR INSTALLATION IS INCIDENTAL TO FENCE OR GATE.

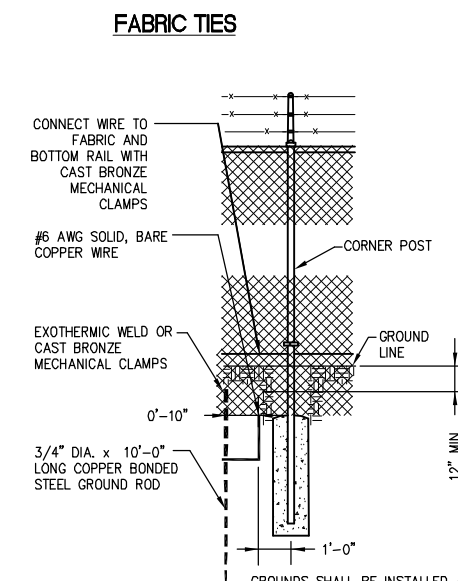


STRETCHER BAR BAND



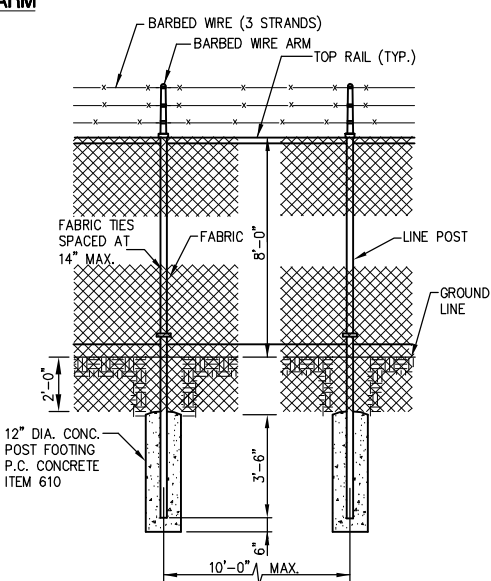
WHEN FENCE LINE HAS A CHANGE IN DIRECTION OF 15° OR MORE, A TERMINAL POST SHALL BE PLACED AS SHOWN ABOVE. WHERE ANGLE IS LESS THAN 15° AND EXISTING CONDITIONS REQUIRE A TERMINAL POST, THEY SHALL BE PLACED AS DIRECTED BY THE RESIDENT ENGINEER.

INSTALLATION AT CORNERS

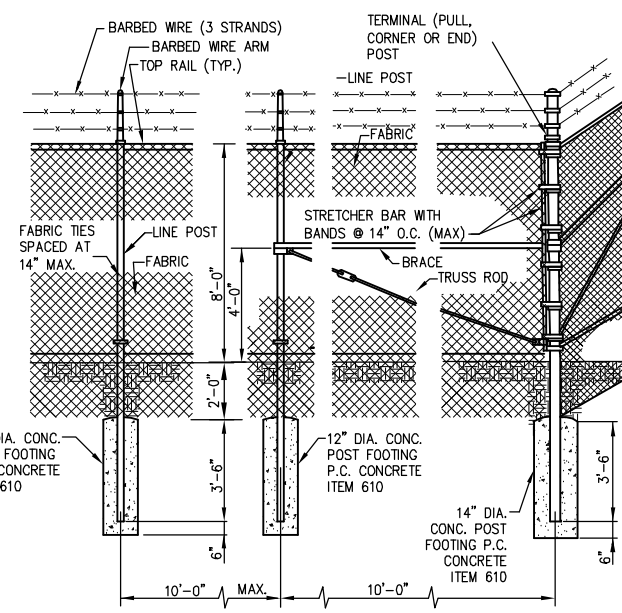


GROUNDS SHALL BE INSTALLED AT END POSTS AND AT 500' INTERVALS ALONG THE FENCE EXCEPT AROUND THE ELECTRICAL VAULT WHERE THEY ARE TO BE PLACED AT ALL FOUR FENCE CORNERS, COST INCIDENTAL TO FENCE.

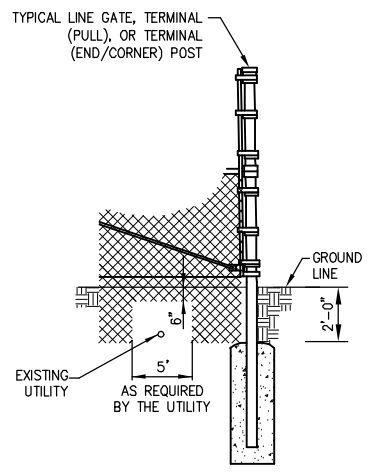
PROTECTIVE ELECTRICAL GROUND



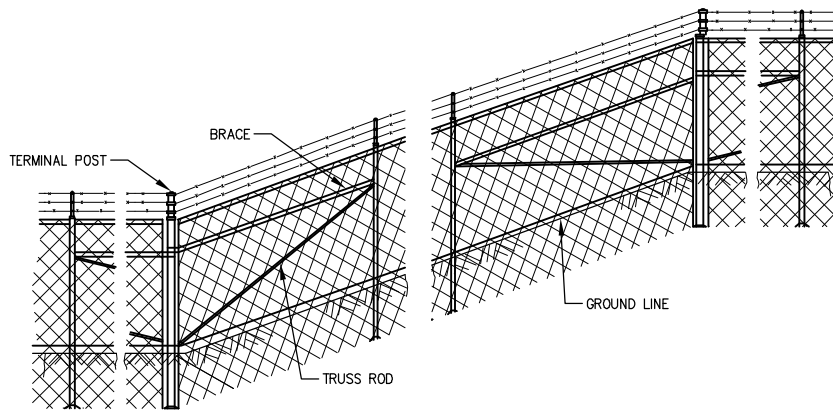
LINE POST



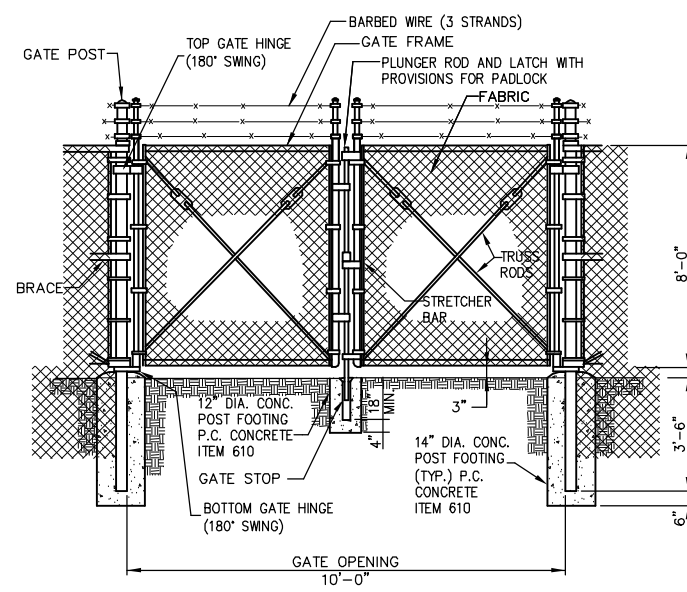
TERMINAL (PULL, CORNER OR END) POST



FENCE INSTALLATION OVER UTILITIES



INSTALLATION ON SLOPES



PEDESTRIAN GATE, 10' (DOUBLE 5')

FENCING NOTES

1. ALL FENCE, FABRIC, POSTS, GATES, TENSION WIRE, RODS, BRACES, ARMS, BARBED WIRE AND MISCELLANEOUS FITTINGS SHALL BE GALVANIZED STEEL, EXCEPT FOR ITEMS AT800962, AND AT800963, WHICH SHALL BE BLACK VINYL COATED.
2. BARBED WIRE FOR FENCE AND GATES SHALL BE GALVANIZED STEEL. BARBED WIRE SHALL NOT BE FURNISHED FOR ITEM AS800946, AT800962, OR AT800963.
3. FENCE HEIGHT SHALL BE 10' WITH BOTTOM 2' BURIED, EXCEPT ITEM AR800945, WHICH IS 8' WITHOUT BURIAL. GATE HEIGHT ABOVE GROUND LINE SHALL BE 8'-0" AS SHOWN.
4. PULL 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.
5. ALUMINUM RESTRICTED AREA SIGNS SHALL BE FURNISHED AS SHOWN IN THE DETAIL. COST INCIDENTAL TO FENCE OR GATE.
6. SONOTUBE TO BE USED FOR CASTING POST FOUNDATIONS IN WETLAND AREAS AND WHERE REQUIRED BY THE SOIL CONDITIONS TO PROVIDE A CONSTANT WIDTH FOOTING
7. COST OF TRENCHING FOR FENCE FABRIC BURIAL SHALL BE INCIDENTAL TO CHAIN LINK FENCE.
8. SOME FENCE ITEMS ARE BID AS ALTERNATE BID A ITEMS (AS) AND OTHERS ARE BID AS ALTERNATE BID B ITEMS (AT). THE AWARD WILL BE MADE BASED ON THE BASE BID AND EITHER ALTERNATE BID A OR ALTERNATE BID B. ONLY ONE OF THE ALTERNATES WILL BE AWARDED.
9. SEE SPECIAL PROVISIONS.

LINE POST	
Section	lbs./ft. (kg/m)
Pipe Type A 1.90 (48.3) O.D.	2.72 (4.05)
Pipe Type B 1.90 (48.3) O.D.	2.28 (3.39)
Pipe Type C 1.90 (48.3) O.D.	2.26 (3.36)
H 1.875x1.625 (47.6x41.3)	2.72 (4.05)
□	1.60 (2.38)
I	2.30 (3.42)

TERMINAL POST	
Section	lbs./ft. (kg/m)
Pipe Type A 2.375 (60.3) O.D.	3.65 (5.43)
Pipe Type B 2.375 (60.3) O.D.	3.11 (4.63)
Pipe Type C 2.375 (60.3) O.D.	3.09 (4.60)
Roll Formed 3.5x3.5 (89.0x89.0)	See detail
Sq. Tubing 2.5x2.5 (63.5x63.5)	4.32 (6.43)

HORIZONTAL BRACES	
Section	lbs./ft. (kg/m)
Pipe Type A 1.66 (42.2) O.D.	2.27 (3.38)
Pipe Type B 1.66 (42.2) O.D.	1.83 (2.72)
Pipe Type C 1.66 (42.2) O.D.	1.82 (2.71)
H 1.31x1.5 (33.3x38.1)	2.25 (3.35)
Roll Formed 1.625x1.25 (41.3x31.8)	See detail

GATE FRAMES	
Section	lbs./ft. (kg/m)
Pipe Type A 1.66 (42.2) O.D.	2.27 (3.38)
Pipe Type B 1.66 (42.2) O.D.	1.83 (2.72)
Pipe Type C 1.66 (42.2) O.D.	1.82 (2.71)

GATE POSTS *					
Gate Opening * ft. (m)		Pipe Type A		Pipe Type B	
Single	Double	Size (O.D.)	lbs./ft. (kg/m)	Size (O.D.)	kg/m (lbs./ft.)
Over 4 (1.2) to 8 (2.5)	Over 8 (2.5) to 16 (5.0)	2.875 (73.0)	5.79 (8.62)	3 (76.2)	5.78 (8.60)
				2.875 (73.0)	4.64 (6.91)

* The 3.5x3.5 (89.0 x 89.0) roll formed section as detailed may be used as gate posts for single gate up to 6' (1.8 m) and double gate up to 12' (3.6 m).

DETAILS SHOWN ARE NOT TO SCALE

APR 29, 2011 8:11 AM MCLAUJ01058
 I:\10\065\00831\10A0151D\DRAWINGS\SHEETS\31 - FENCING DETAILS.DWG

REVISION

DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAfee Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



2.DWG

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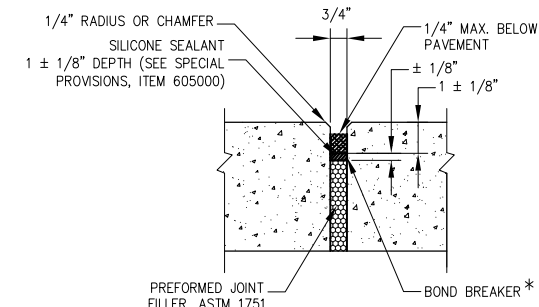
LAYOUT	LDH	3/15/11
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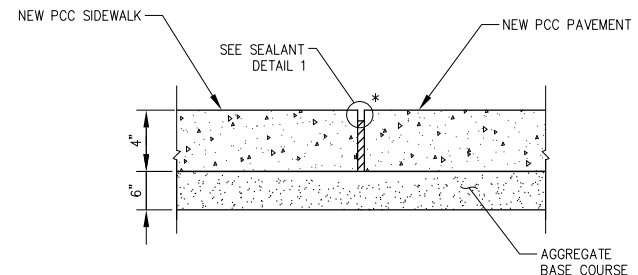
FENCE DETAILS

INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

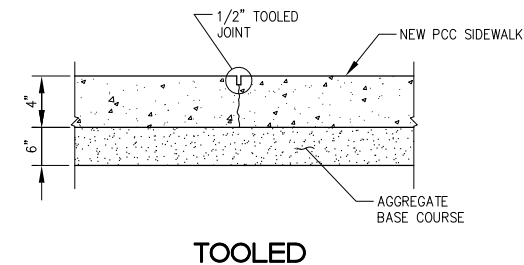


* POLYETHYLENE OR POLYESTER TAPE (3 MIL. MIN.) OR MARKING TAPE, RUBBER TAPE, 1/8" WIDER THAN WIDTH OF JOINT.

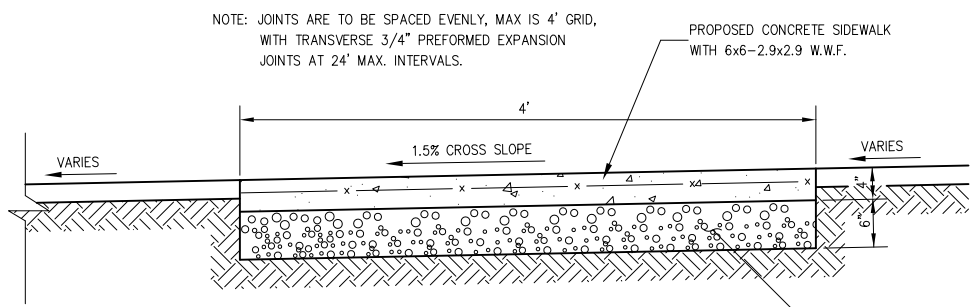
DETAIL 1 - SEALANT



EXPANSION JOINT

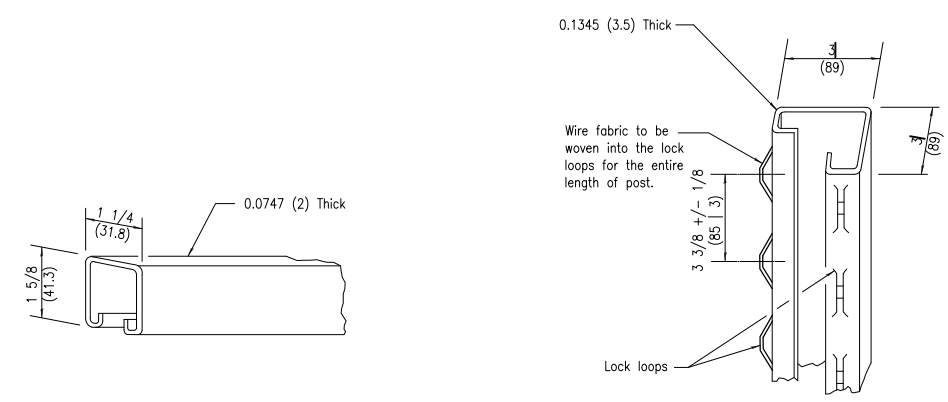


TOOLED CONTRACTION JOINT



- NOTES
- 3/4" PREFORMED JOINT FILLER TO BE USED IN ALL LOCATIONS WHERE SIDEWALK IS ADJACENT TO EXISTING PAVEMENT.
 - SIDEWALK SHALL BE SET AT 2 INCHES ABOVE EXISTING GRADE AND SLOPED TRANSVERSELY TO MEET FENCE GRADE.

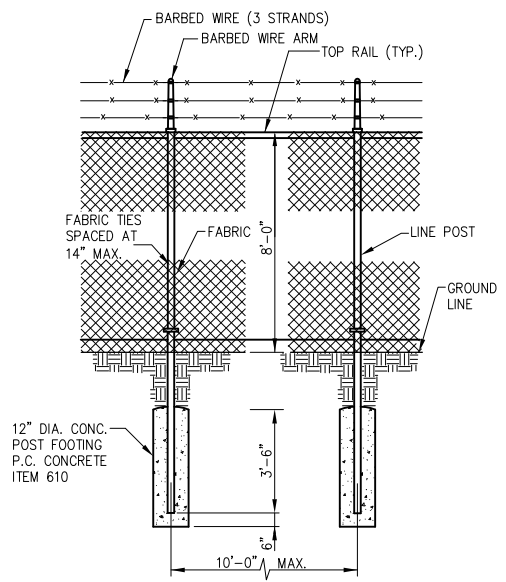
SIDEWALK CROSS SECTION DETAIL



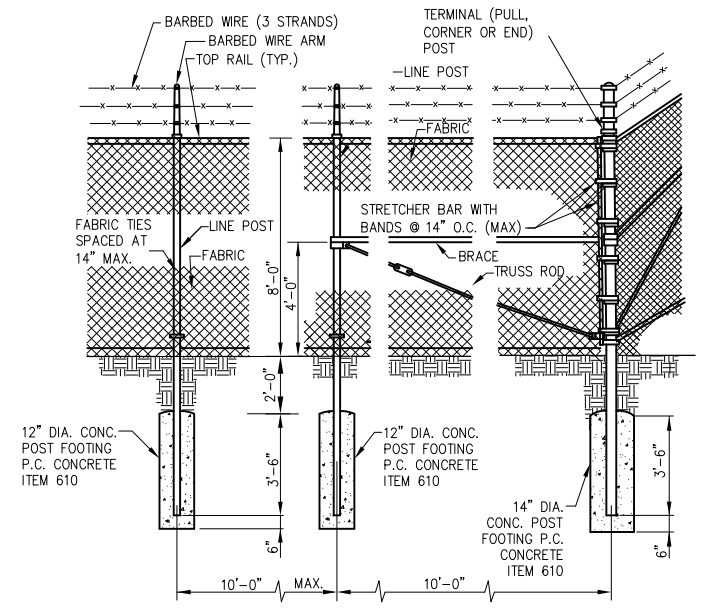
ROLL FORMED SECTION OF BRACE

ROLL FORMED SECTION OF TERMINAL + GATE POST

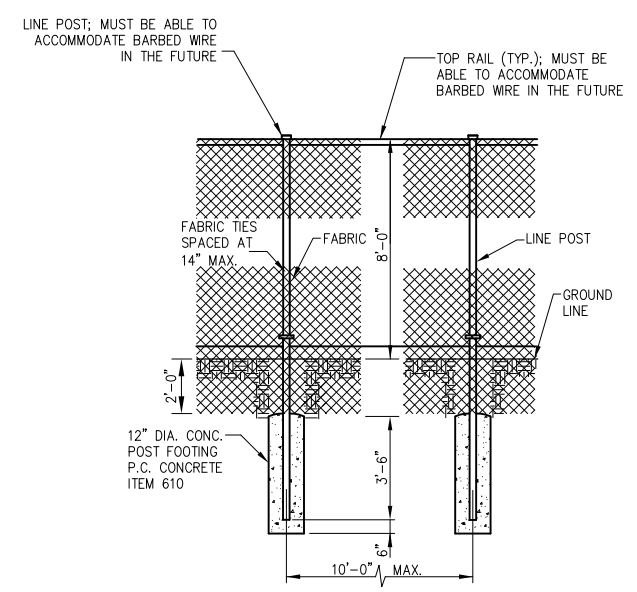
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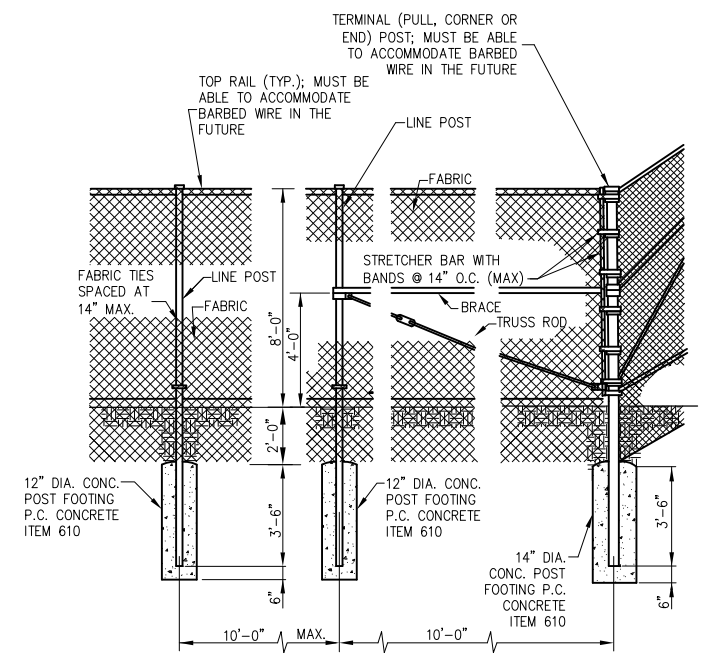
LINE POST - NO FENCE SKIRT



TERMINAL (PULL, CORNER OR END) POST - NO FENCE SKIRT

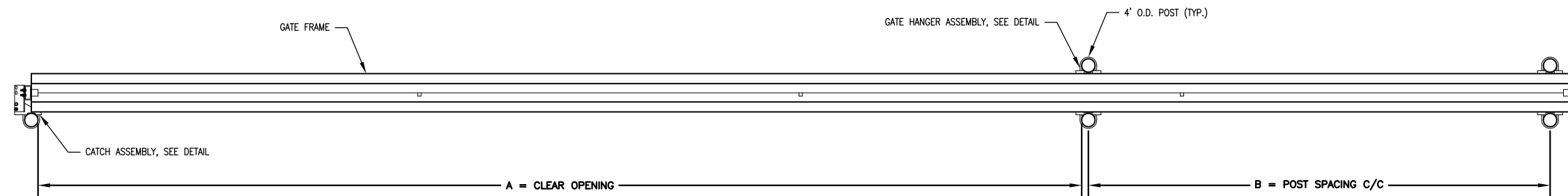


LINE POST - NO BARBED WIRE



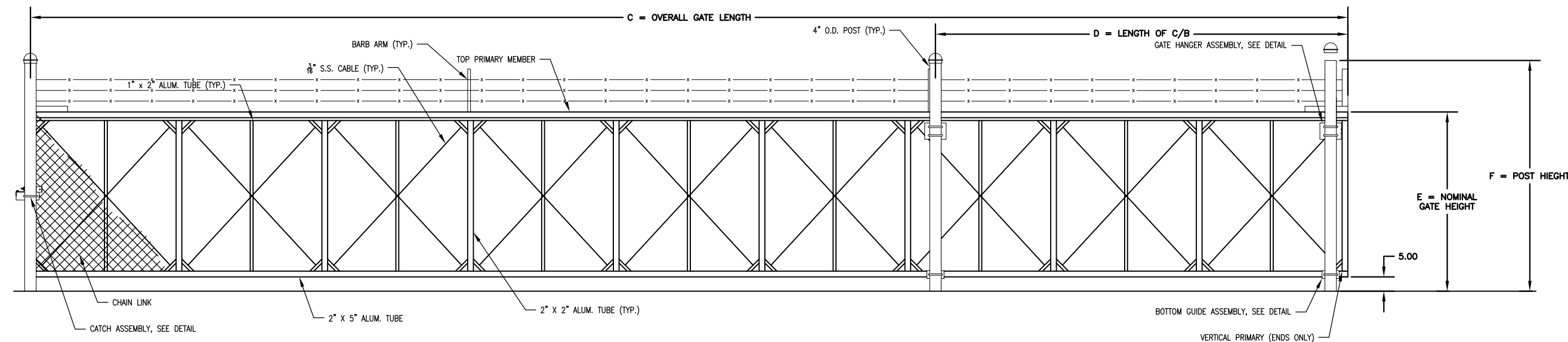
TERMINAL (PULL, CORNER OR END) POST - NO BARBED WIRE

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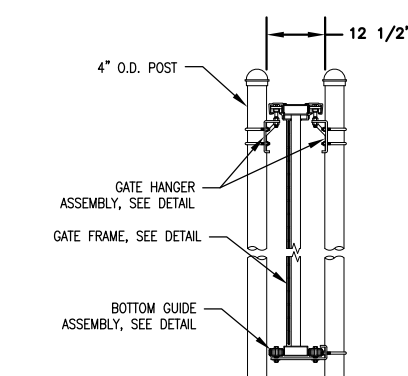


PLAN VIEW

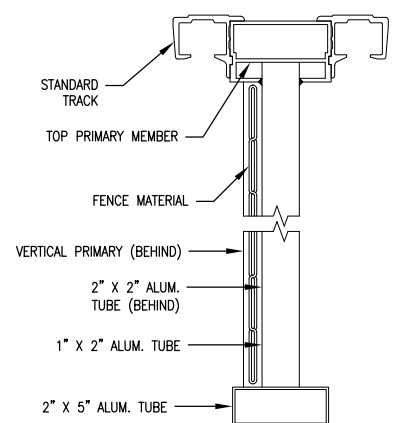
- NOTES:
1. GATE ELEVATION IS VIEWED FROM THE OUTSIDE OF THE SECURE AREA LOOKING IN.
 2. FOR ITEMS AS800947 OR AT800963, BARBED WIRE SHALL NOT BE FURNISHED.
 3. FOR ITEM AT800963, ALL GATE COMPONENTS SHALL BE FINISHED BLACK; FABRIC SHALL BE VINYL-COATED BLACK.



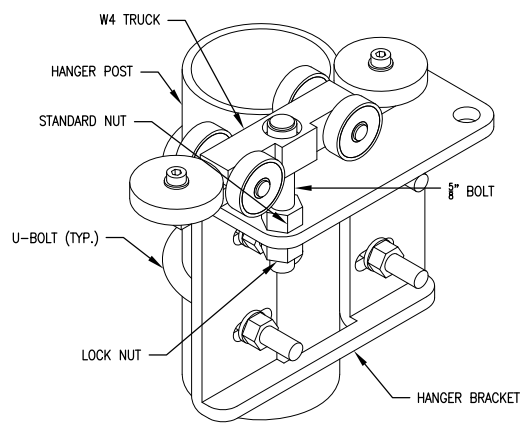
ELEVATION



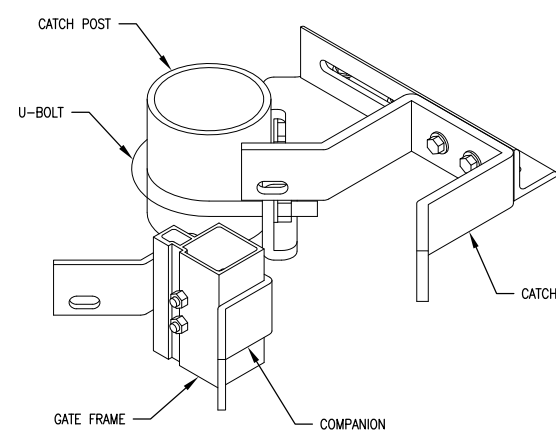
ASSEMBLY SECTION



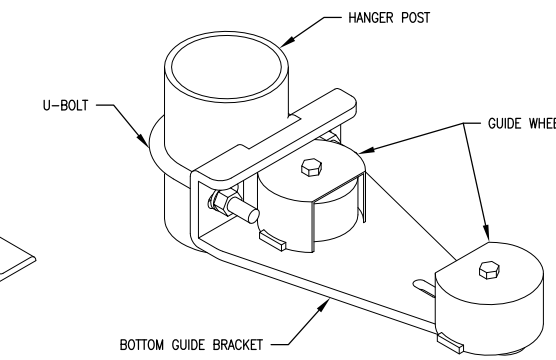
GATE FRAME SECTION



GATE HANGER ASSEMBLY



CATCH ASSEMBLY



BOTTOM GUIDE ASSEMBLY

NOMINAL GATE SIZE		
28' W X 8'-1" H		
CRITICAL DIMENSION CHART		
A	CLEAR OPENING	28'-0"
B	COUNTERBALANCE POST SPACING C/C	13'-1"
C	OVERALL GATE LENGTH	42'-0"
D	COUNTERBALANCE LENGTH	14'-0"
E	NOMINAL GATE HEIGHT	8'-0"
F	POST HEIGHT	9'-6"

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McAtee Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813

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28' GATE DETAILS
 INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

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REVISION
DATE

EROSION CONTROL
WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
3580 North McAfee Road
Waukegan, Illinois 60087
Telephone: 847.244.0066
Fax: 847.244.3813

Hanson No. 10A0151D
Filename 34 - DRAINAGE AND EROSION CONTROL DETAILS.DWG
Scale N/A
Date APRIL 22, 2011

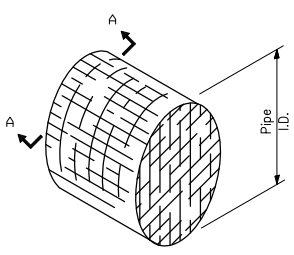
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REVIEWED	RWH	4/22/11

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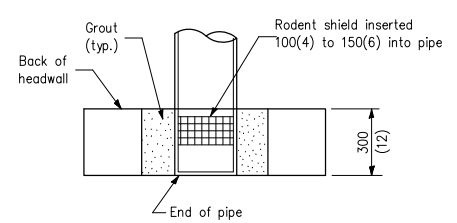
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DRAINAGE AND EROSION CONTROL DETAILS

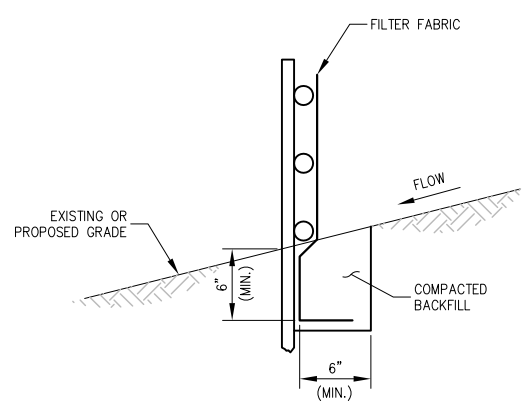
INSTALL PERIMETER FENCE, PHASE 1
IDA No. UGN-4076 AIP No. 3-17-0105-B51



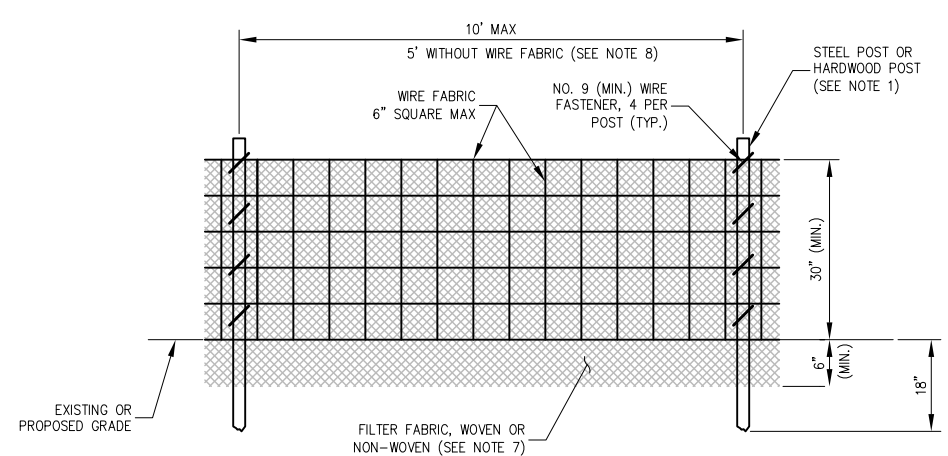
DETAIL OF RODENT SHIELD



RODENT SHIELD PLACEMENT



FABRIC ANCHOR DETAIL

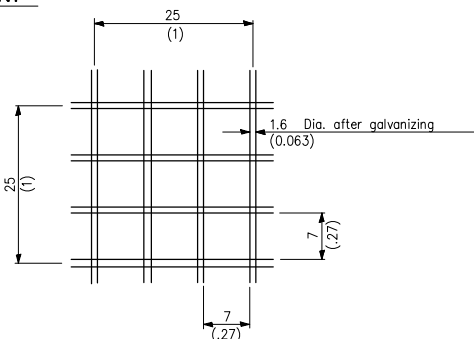


ELEVATION

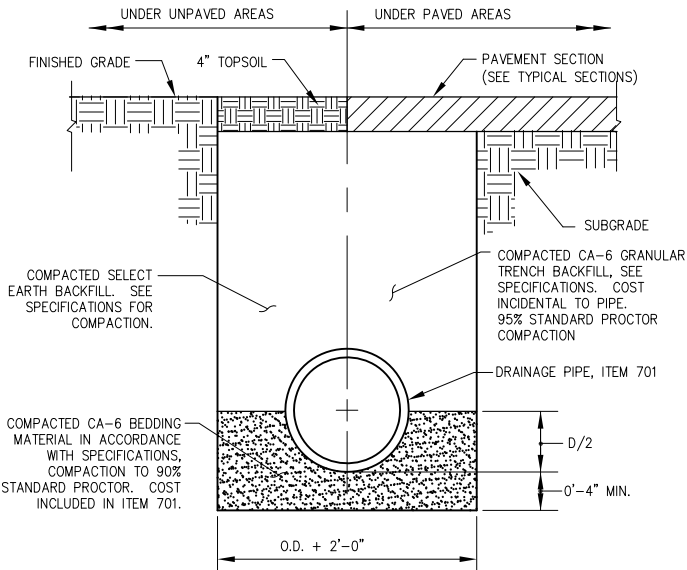
SILT FENCE DETAILS

NOTES:

- FENCE POST SHALL BE EITHER STEEL "T" LINE POST OR HARDWOOD POST WITH A MINIMUM SECTIONAL AREA OF 3.0 SQUARE INCHES. A CARPENTER'S 2"x2" POST WILL NOT MEET SPECIFICATIONS.
- TOP AND BOTTOM WIRE OF WIRE FABRIC SHALL BE MINIMUM GAGE NO. 9. INTERMEDIATE WIRES OF THE WIRE FABRIC SHALL BE MINIMUM GAGE NO. 11.
- WIRE FABRIC SHALL BE SECURELY FASTENED TO FENCE POSTS WITH NO. 9 GAGE WIRE MINIMUM. FOUR (4) FASTENERS PER POST REQUIRED.
- FILTER FABRIC SHALL BE SECURELY FASTENED TO WIRE FABRIC AND POSTS WITH TIES OR STAPLES SPACED AT 12" APART AT THE TOP, MIDDLE AND BOTTOM.
- WHEN TWO SECTIONS OF FILTER FABRIC MEET, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED AND ATTACHED TO THE WIRE FABRIC AT A POST.
- FILTER FABRIC SHALL BE IN ACCORDANCE WITH SPECIAL PROVISIONS WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
- WIRE FABRIC MAY BE OMITTED IF A MAXIMUM OF 5 FEET IS USED FOR POST-TO-POST SPACING.
- 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.
- ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
- SILT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. PERIODIC INSPECTION SHALL BE PERFORMED AND REQUIRED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN BULGES DEVELOP IN THE SILT FENCE.
- IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (E.G. SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURE).
- FENCE POSTS SHALL BE REMOVED WHEN DIRECTED AT PROJECT END.
- 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.



SECTION A-A



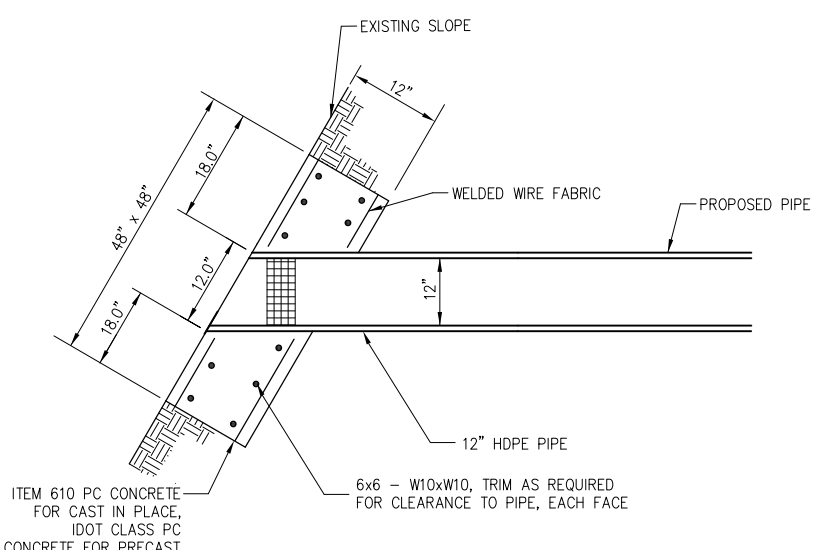
NOTES

- UNSUITABLE MATERIAL ENCOUNTERED DURING PLACEMENT OF BEDDING SHALL BE REMOVED AND REPLACED.
- WITHIN 3 FEET OF PAVED AREA, GRANULAR BACKFILL IS TO BE USED INSTEAD OF EARTH BACKFILL.
- AT CONTRACTOR'S OPTION IDOT CONTROLLED LOW STRENGTH MATERIAL WITH A HIGH EARLY STRENGTH, "FLASH FILL", MAY BE USED INSTEAD OF GRANULAR TRENCH BACKFILL UNDER PAVEMENTS.

PIPE TRENCH

DRAINAGE PIPE SCHEDULE

Structure	Station	Offset	Type	Diameter	Rim E.	Invert E.	Install Length	Size	Type	Slope %
A1	130+60.60	8.72' LT	CONCRETE END SECTION	12	--	701.25	10.0	12.0	HDPE	5.00
A2	130+60.60	1.24' RT	CONCRETE END SECTION	12	--	700.75				



PIPE END SECTION

STORM WATER POLLUTION PREVENTION NOTES

GENERAL

THE CONTRACTOR SHALL IMPLEMENT ALL PROVISIONS OF THE CONTRACT DOCUMENTS TO ASSURE THAT STORM WATER POLLUTION PREVENTION ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY MANNER. SEDIMENTATION MUST NOT BE TRANSPORTED OFF THE CONSTRUCTION SITE. PERMANENT DRAINAGE FEATURES AND VEGETATIVE MEASURES SHALL BE PROVIDED AS SOON AS POSSIBLE.

THE MAINTENANCE OF ALL STORM WATER POLLUTION PREVENTION MEASURES IS INCIDENTAL TO THE ASSOCIATED ITEM.

POLLUTION PREVENTION MEASURES

THE CONTRACTOR SHALL BE REQUIRED TO IMPLEMENT AND MAINTAIN STORM WATER POLLUTION PREVENTION PRACTICES AND MEASURES PRIOR TO THE STRIPPING OF EXISTING VEGETATION WHERE EVER POSSIBLE AND AS SOON AS CONSTRUCTION PERMITS IN OTHER AREAS. POLLUTION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, INCLUDING THESE CONSTRUCTION PLANS, AND WITH STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, CURRENT ISSUE. THE CONTRACTOR SHALL ADJUST HIS OPERATIONS AND IMPLEMENT POLLUTION CONTROL MEASURES SO THAT NO RUNOFF FROM STRIPPED AREAS WILL LEAVE THE CONSTRUCTION SITE OTHER THAN THROUGH SEDIMENT TRAPS OR OTHER SUITABLE CONTROL MEASURES.

POLLUTION CONTROL ITEMS SHALL BE PROVIDED AS NOTED ON THE STORM WATER POLLUTION PREVENTION PLAN AND IN THE STORM WATER POLLUTION PREVENTION DETAILS AND AS DIRECTED BY THE ENGINEER. THE LIMITS OF SUCH MEASURES SHALL BE STAKED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SUCH LIMITS MAY BE ADJUSTED BY THE ENGINEER TO ACCOUNT FOR ACTUAL SITE CONDITIONS EXPERIENCED DURING CONSTRUCTION. ADDITIONAL COMPENSATION FOR MEASURES EXCEEDING THE PLAN QUANTITIES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR EACH ITEM.

THE CONTRACTOR IS TO MAINTAIN AND ADJUST, REPAIR OR REPLACE ALL POLLUTION PREVENTION MEASURES AS REQUIRED OR AS DIRECTED BY THE ENGINEER UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. MAINTENANCE OF POLLUTION CONTROL MEASURES IS TO BE PROVIDED AT NO ADDITIONAL COST TO THE CONTRACT.

ADDITIONAL STORMWATER POLLUTION PREVENTION MEASURES ARE EXISTING ON SITE LOCATED AT DRAINAGE FACILITIES AND ALONG THE PROPERTY LINE.

DETAILS SHOWN ARE NOT TO SCALE

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ELECTRICAL LEGEND -- ONE-LINE DIAGRAM	
	CABLE TERMINATOR/LUG, TERMINAL BLOCK, OR SPLICE
	TRANSFORMER
	DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	CIRCUIT BREAKER
	THERMAL MAGNETIC CIRCUIT BREAKER
	NORMALLY OPEN (N.O.) CONTACT
	NORMALLY CLOSED (N.C.) CONTACT
	TOGGLE SWITCH / 2 POSITION SWITCH
	FUSE
	TRANSIENT VOLTAGE SURGE SUPPRESSOR OR SURGE PROTECTOR DEVICE
	GROUND -- GROUND ROD, GROUNDING ELECTRODE, OR AT EARTH POTENTIAL
	INDICATING LIGHT
	MOTOR
	LOAD, MOTOR, # = HORSEPOWER
	ELECTRIC UTILITY METER BASE
	JUNCTION BOX WITH SPLICE OR TERMINALS
	EQUIPMENT, XXXX = DEVICE DESCRIPTION
	GROUND BAR, GROUND BUS OR GROUND TERMINAL
	SOLID NEUTRAL, NEUTRAL BUS, OR NEUTRAL TERMINAL
	PANELBOARD WITH MAIN LUGS
	PANELBOARD WITH MAIN BREAKER
	FUSE PANEL WITH MAIN FUSE PULLOUT
	DUPLEX RECEPTACLE 120V SINGLE PHASE GROUNDING TYPE
	CONTROL STATION
	TRANSFER SWITCH: N = NORMAL EM = EMERGENCY L = LOAD
	ENGINE GENERATOR SET

ELECTRICAL LEGEND -- PLANS	
	CONDUIT (EXPOSED)
	CONDUIT OR UNIT DUCT (CONCEALED OR BURIED)
	DUCT
	DUCT
	BURIED/UNDERGROUND ELECTRIC
	OVERHEAD ELECTRIC
	TOGGLE SWITCH
	PUSH BUTTON STATION
	WALL OR CEILING MTD. JUNCTION BOX. CONFIGURATION VARIES WITH USE
	SINGLE THROW DISCONNECT SWITCH
	SINGLE THROW, FUSIBLE DISCONNECT SWITCH
	ENCLOSED CIRCUIT BREAKER
	MOTOR
	TRANSFORMER
	ELECTRIC UTILITY METER
	ENCLOSURE
	CIRCUIT BREAKER PANEL--SEE SCHEDULES
	CONTROL PANEL
	GROUND ROD
	POLE WITH CAMERA

ELECTRICAL ABBREVIATIONS	
A.F.F.	ABOVE FINISHED FLOOR
A, AMP	AMPERES
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CR	CONTROL RELAY
CU	COPPER
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EP	EXPLOSION PROOF
ES	EMERGENCY STOP
ETL	INTERTEK -- ELECTRICAL TESTING LABS
ETM	ELAPSE TIME METER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GRSC	GALVANIZED RIGID STEEL CONDUIT
HID	HIGH INTENSITY DISCHARGE
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
J	JUNCTION BOX
KVA	KILOVOLT AMPERE(S)
KW	KILOWATTS
LC	LIGHTING CONTACTOR
LTFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT (UL LISTED)
LTG	LIGHTING
LP	LIGHTING PANEL
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCUAR MIL
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE (NFPA 70)
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC
OL	OVERLOAD

ELECTRICAL ABBREVIATIONS (CONTINUED)	
PB	PULL BOX
PC	PHOTO CELL
PDB	POWER DISTRIBUTION BLOCK
PNL	PANEL
RCPT	RECEPTACLE
R	RELAY
S	STARTER
SPD	SURGE PROTECTION DEVICE
SPST	SINGLE POLE SINGLE THROW
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITER'S LABORATORIES
V	VOLTS
W/	WITH
W/O	WITHOUT
WP	WEATHER PROOF
XFER	TRANSFER
XFMR	TRANSFORMER

AIRPORT EQUIPMENT/FACILITY ABBREVIATIONS	
ASOS	AUTOMATED SURFACE OBSERVING SYSTEM
ATCT	AIR TRAFFIC CONTROL TOWER
AWOS	AUTOMATED WEATHER OBSERVING SYSTEM
CCR	CONSTANT CURRENT REGULATOR
DME	DISTANCE MEASURING EQUIPMENT
FAR	FEDERAL AVIATION REGULATION
GS	GLIDE SLOPE FACILITY
HIRL	HIGH INTENSITY RUNWAY LIGHT
ILS	INSTRUMENT LANDING SYSTEM
IM	INNER MARKER
LIR	LOW IMPACT-RESISTANT
LOC	LOCALIZER FACILITY
MALS	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM
MALSR	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATING LIGHTS
MIRL	MEDIUM INTENSITY RUNWAY LIGHT
MITL	MEDIUM INTENSITY TAXIWAY LIGHT
NDB	NON-DIRECTIONAL BEACON
PAPI	PRECISION APPROACH PATH INDICATOR
PLASI	PULSE LIGHT APPROACH SLOPE INDICATOR
RAIL	RUNWAY ALIGNMENT INDICATING LIGHTS
REIL	RUNWAY END IDENTIFIER LIGHT
RVR	RUNWAY VISUAL RANGE
VADI	VISUAL APPROACH DESCENT INDICATOR
VASI	VISUAL APPROACH SLOPE INDICATOR
VOR	VERY HIGH FREQUENCY OMNIDIRECTIONAL RANGE FACILITY
WC	WIND CONE

NOTES:

- 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 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR 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:

480Y/277 VAC, 3 PHASE, 4 WIRE
 PHASE A BROWN
 PHASE B ORANGE
 PHASE C YELLOW
 NEUTRAL WHITE OR GRAY
 GROUND GREEN
- SEE RESPECTIVE SITE PLANS FOR SITE LEGEND INFORMATION.
- LTFMC 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 LTFMC THAT IS NOT UL LISTED. CONFIRM LTFMC BEARS THE UL LABEL PRIOR TO INSTALLATION.
- 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.
- HIGH VOLTAGE & LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME WIREWAY, CONDUIT, DUCT, OR HANDHOLE.

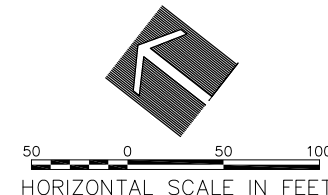
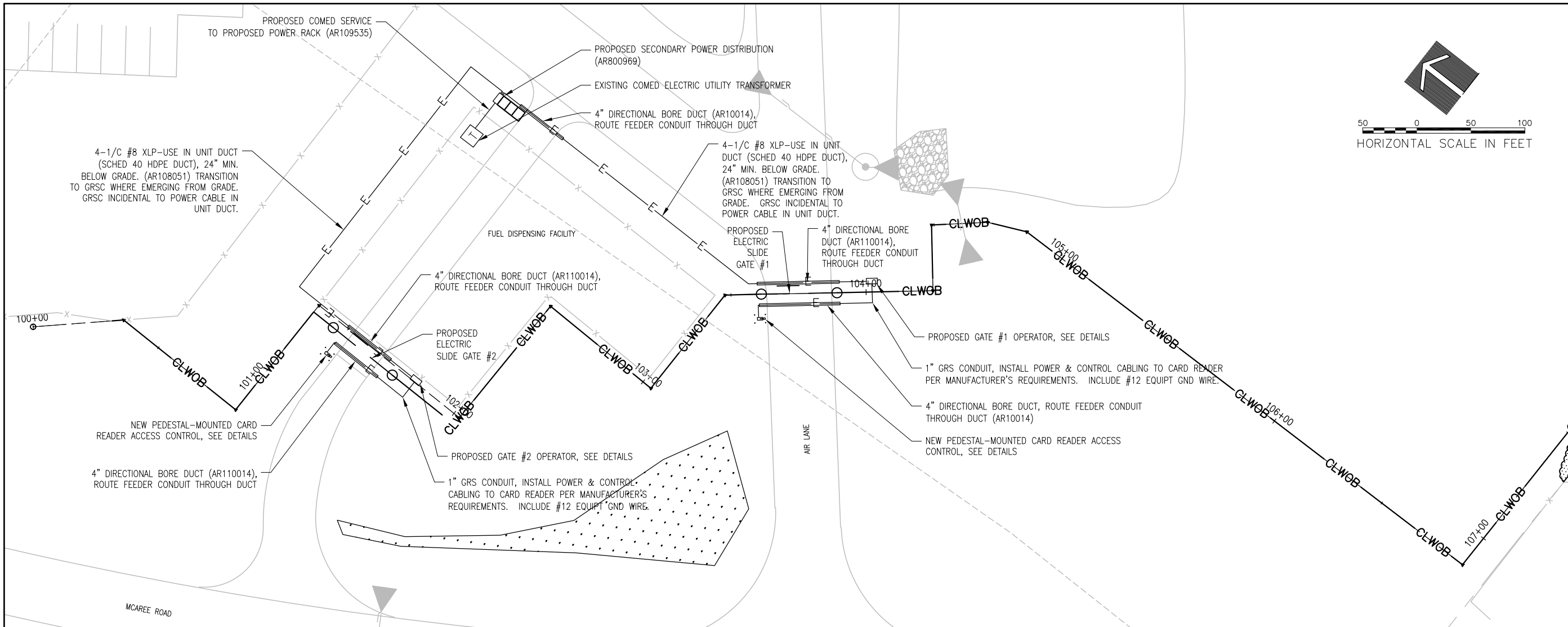
REVISION	DATE

HANSON PROFESSIONAL SERVICES INC.
 815 COMMERCE DRIVE, SUITE 200
 OAK BROOK, ILLINOIS 60523
 TELEPHONE: 847.244.0066
 FAX: 847.244.3813

LAYOUT	JFC	4/18/11
DRAWN	JFC	4/18/11
REVIEWED	RWH	4/22/11

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REVISION	DATE

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 3580 North McAree Road
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Hanson No.	10A0151D	FILENAME	36 - ELECTRICAL PLAN.DWG
Scale	1"=20'	DATE	APRIL 22, 2011
LAYOUT	JFC	4/18/11	
DRAWN	JFC	4/18/11	
REVIEWED	RWH	4/22/11	

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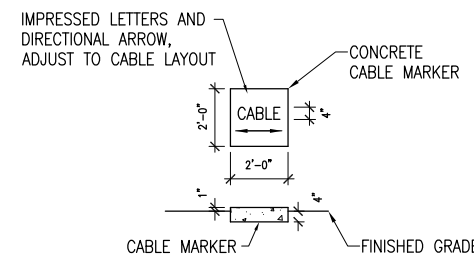
ELECTRICAL SITE PLAN
ALIGNMENT 100
 INSTALL PERIMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

LEGEND:

- X— EXISTING STORM SEWER
- >— EXISTING UNDERDRAIN
- E— EXISTING ELECTRICAL
- T— EXISTING TELEPHONE
- X— EXISTING FENCE
- EXISTING STORM SEWER MANHOLE
- ▽ EXISTING FLARED END SECTION
- CL-WOB— PROPOSED CHAIN LINK FENCE WITHOUT BARBED WIRE
- ++++ PROPOSED FENCE REMOVAL
- PROPOSED GATE
- E— PROPOSED ELECTRICAL CABLING

NOTES:

- REFER TO CORRESPONDING CIVIL SHEETS FOR ADDITIONAL INFORMATION.
- SOME EXISTING AND PROPOSED UTILITIES HAVE BEEN OMITTED FOR CLARITY.
- REFER TO SHEET 39 FOR GATE OPERATOR INSTALLATION DETAIL AND ELECTRIC GATE PLAN.
- REFER TO SHEET 40 FOR PROPOSED GATE OPERATORS ELECTRICAL ONE-LINE DIAGRAM.
- CONTRACTOR SHALL EXAMINE THE SITE AND REPORT ANY POSSIBLE INTERFERENCES TO THE ENGINEER PRIOR TO INSTALLATION OF THE GATE OPERATOR AND CONTROLS.
- CONTRACTOR SHALL COORDINATE THE INSTALLATION OF PROPOSED COMED SERVICE FEED WITH COMED REPRESENTATIVE. CONTRACTOR SHALL INSTALL METER AND SERVICE PANEL PER DETAIL ON SHEET 37.
- DIRECT-BURIED CONDUIT SHALL BE INSTALLED A MINIMUM OF 24" BELOW FINISHED GRADE. CONTRACTOR SHALL FIELD VERIFY PROPOSED CONDUIT ROUTING PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE INSTALLATION OF PROPOSED CONDUIT WITH PROPOSED FENCING. PROPOSED FENCING WILL BE INSTALLED PARTIALLY BELOW GRADE, THEREFORE ANY CONDUIT/FENCING CROSSINGS MUST BE INSTALLED BELOW LOWER LIMIT OF FENCING. CONDUIT SHALL NOT PENETRATE FENCING BELOW GRADE.
- THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND AGENCIES WHICH HAVE LINES, UTILITIES, AND/OR CONDUITS IN THE PROPOSED WORK AREA. ALL LINES, UTILITIES, AND CONDUITS SHALL BE LOCATED AND IDENTIFIED FOR DEPTH BEFORE ANY WORK BEGINS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL UNDERGROUND ELECTRIC SERVICE LINES, UTILITIES, AND CONDUITS LOCATED WITHIN THE PROPOSED CONSTRUCTION LIMITS. THESE UNDERGROUND LINES, UTILITIES, AND CONDUITS SHALL BE LOCATED AT THE CONTRACTOR'S OWN EXPENSE PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. ANY EXISTING UTILITY LINES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.



CABLE MARKERS SHALL BE PLACED AT CHANGES OF DIRECTION AND APPROXIMATELY EVERY 50' ALONG CABLE AND/OR CONDUIT RUNS. CONCRETE CABLE MARKERS SHALL HAVE LETTERS 4" HIGH, 3" WIDE WITH A STROKE OF 1/2" AND 1/4" DEEP. ALL LETTERS, NUMBERS AND ARROWS TO BE IMPRESSED. THE COST OF ALL CABLE MARKERS SHALL BE INCIDENTAL TO THE CABLE.

TURF CABLE MARKERS
 "NOT TO SCALE"

THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES THAT MAY BE INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER 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 IMPLIED, 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 DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE 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 UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. CONTACT J.U.L.I.E. (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS) FOR UTILITY INFORMATION, PHONE: 1-800-892-0123. 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.

REVISION

DATE

OPERATOR DETAILS.DWG
 WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McArae Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



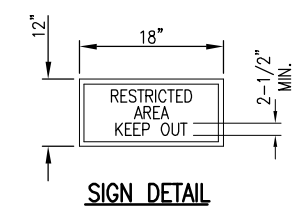
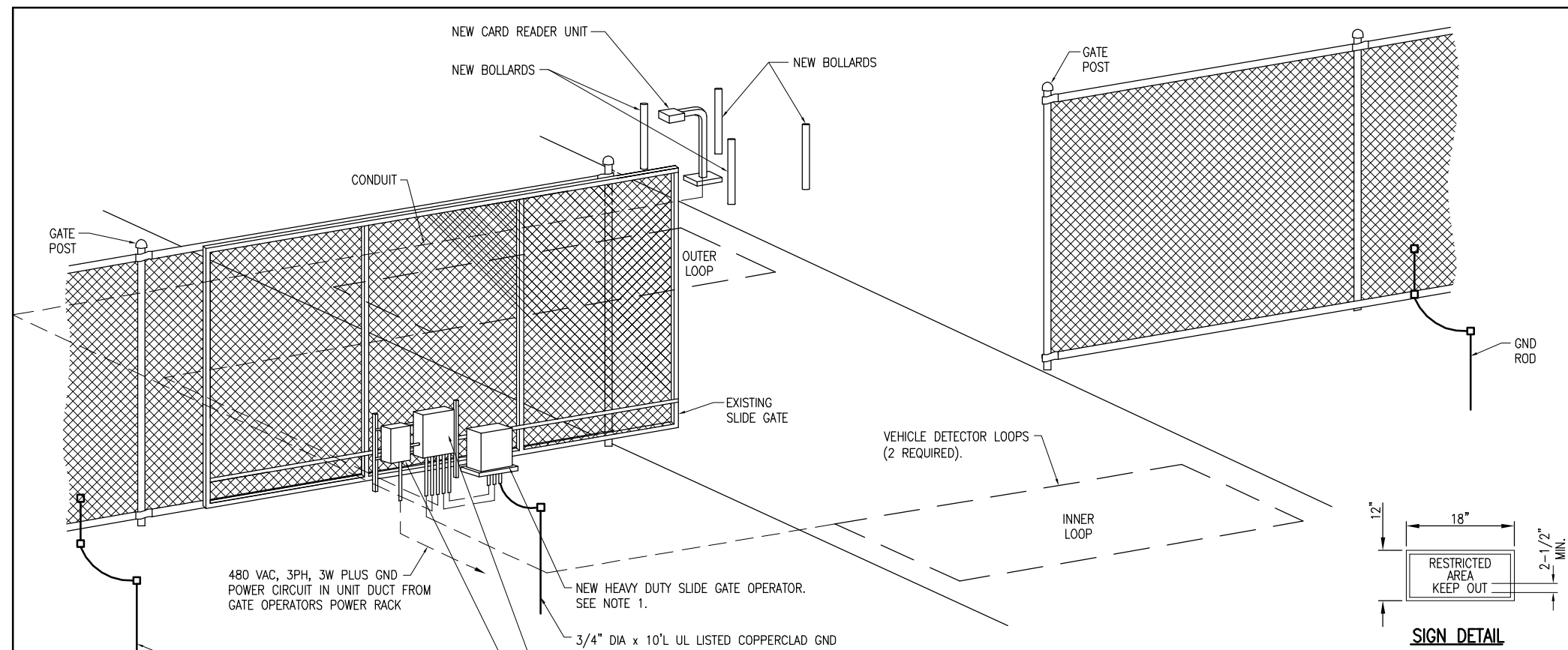
Hanson No.	10A0151D	Date	APRIL 22, 2011
Filename	38 - ELECTRICAL GATE OPERATOR	Scale	N/A
LAYOUT	JFC	4/18/11	
DRAWN	JFC	4/18/11	
REVIEWED	RWH	4/22/11	

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ELECTRIC SLIDE GATE DETAILS
 INSTALL PERMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51

NOTES:

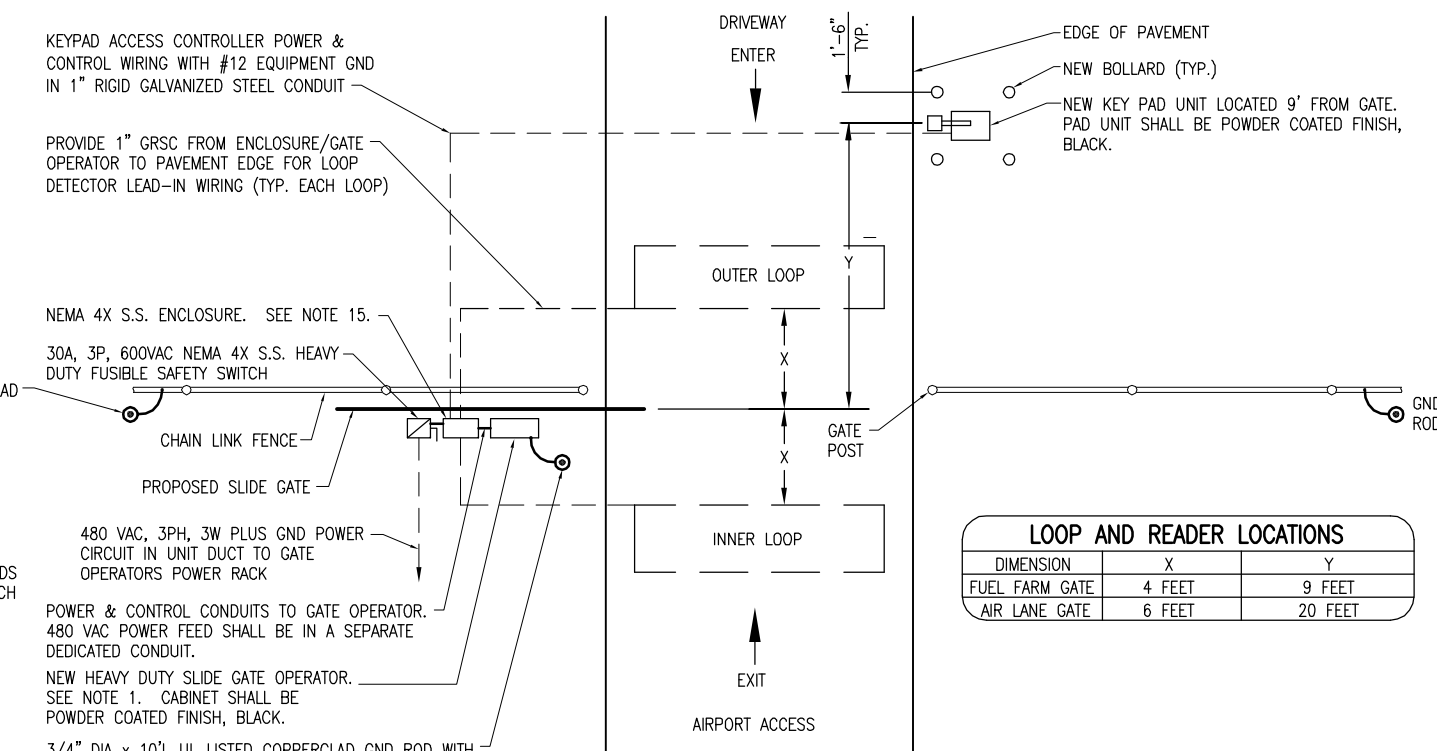
- SEE SPECIAL PROVISION SPECS FOR REQUIREMENTS ON RESPECTIVE GATE & GATE OPERATOR SYSTEM.
- ALL DIMENSIONS AND LAYOUT INFORMATION SHOWN SHOULD BE ADJUSTED AS RECOMMENDED BY THE MANUFACTURER. SEE RESPECTIVE SITE PLAN FOR EACH GATE.
- CONCRETE FOUNDATIONS SHALL BE PROVIDED FOR THE SLIDE GATE OPERATOR AND THE CARD READER 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 ON "KEYPAD UNIT, BOLLARD AND GATE OPERATOR DETAILS" SHEET.
- 1" GRS CONDUIT WILL BE REQUIRED BETWEEN THE SLIDE GATE OPERATOR INSTALLATION AND THE CARD READER ACCESS CONTROL UNIT AND THE DETECTOR LOOPS. THE MINIMUM BURYING DEPTH IS 24". ALL METAL CONDUITS ENTERING THE GATE OPERATOR SHALL BE BONDED TO THE GATE OPERATOR FRAME WITH A #8 AWG (MIN.) COPPER BONDING JUMPER. CONFIRM CONTROL WIRING REQUIREMENTS WITH THE RESPECTIVE GATE OPERATOR SALES AND SERVICE REPRESENTATIVE.
- THE GUARD/BOLLARD POSTS SHALL BE 4" DIA. STEEL (HEAVY WALL) PIPE, CONCRETE FILLED, AND SHALL EXTEND FROM THE TOP OF THE KEYPAD 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 FINISH.
- CONTRACTOR SHALL PROVIDE VERIFICATION THAT THE PROPOSED GATE OPERATOR IS SUITABLE FOR USE WITH AND PROPERLY SIZED FOR THE EXISTING SLIDE GATE.
- (RESERVED).
- CONTRACTOR SHALL COORDINATE ANY POWER OUTAGES TO EXISTING EQUIPMENT WITH THE RESPECTIVE OWNER'S REPRESENTATIVE AND THE AIRPORT DIRECTOR.
- INCLUDE AC SURGE PROTECTION DEVICE FOR EACH GATE OPERATOR, UL 1449 THIRD EDITION LISTED, SURGE CURRENT RATING OF 40KA, SUITABLE FOR USE ON A 480/277 VAC, 3 PHASE, 4 WIRE SYSTEM WITH LED INDICATING OPERATIONAL STATUS, JOSLYN MODEL 1456-21 OR APPROVED EQUAL. INCLUDE MOUNTING BRACKET.
- CONCRETE USED FOR INSTALLING THE GATE OPERATOR, CARD READER ACCESS CONTROL UNIT, & FENCE SHALL MEET THE REQUIREMENTS OF STRUCTURAL PORTLAND CEMENT CONCRETE ITEM 610.
- 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 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.
- PAYMENT FOR EACH SLIDE GATE, CARD READER, 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 IN CONDUIT, DUCT, OR UNIT DUCT, GROUNDING, LABOR, TOOLS, COORDINATION, TESTING, AND INCIDENTALS REQUIRED TO INSTALL THE GATE COMPLETE AND IN OPERATING CONDITION.
- CONTROL CIRCUIT WIRING SHALL NOT BE ROUTED THROUGH THE SAFETY SWITCH/DISCONNECT.
- ALL CONTROL POWER TRANSFORMERS, POWER SUPPLIES, RECEPTACLES, LOOP DETECTOR AMPLIFIERS, SECONDARY SAFETY DEVICE EQUIPMENT, AND ANY OTHER ASSOCIATED CONTROLS SHALL BE INSTALLED EITHER INSIDE THE GATE OPERATOR CONTROL PANEL OR INSIDE A SEPARATE NEMA 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.



GATE DETAIL (ISOMETRIC)
 "NOT TO SCALE"

VEHICLE DETECTOR LOOPS

GATE SIZE	LOOP SIZE	NO. OF TURNS
8' TO 12'	4' X 6'	3 TURNS
12' TO 16'	4' X 10'	2 TURNS
16' TO 20'	4' X 14'	2 TURNS
20' TO 24'	4' X 18'	2 TURNS
24' TO 30'	6' X 22'	2 TURNS
30' TO 34'	6' X 26'	2 TURNS

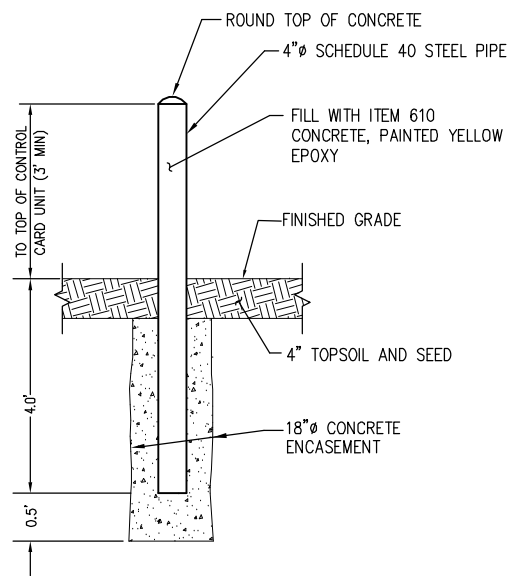


LOOP AND READER LOCATIONS

DIMENSION	X	Y
FUEL FARM GATE	4 FEET	9 FEET
AIR LANE GATE	6 FEET	20 FEET

ELECTRIC GATE PLAN
 "NOT TO SCALE"

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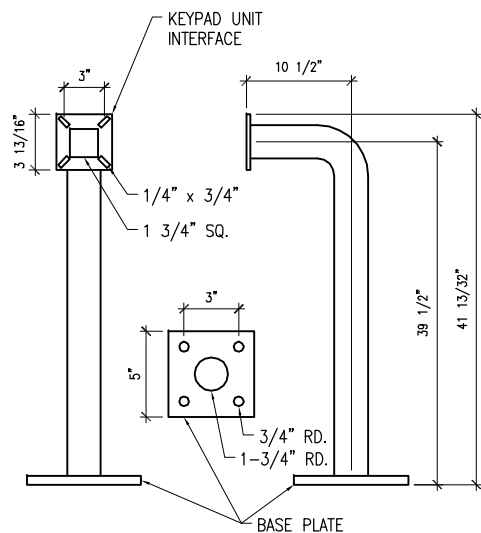


NOTES

1. THE EXPOSED PORTION OF THE BOLLARD SHALL BE PAINTED YELLOW EPOXY.
2. BOLLARD AND ASSOCIATED ITEMS ARE INCIDENTAL TO THE ELECTRIC SLIDING GATE.

BOLLARD DETAIL

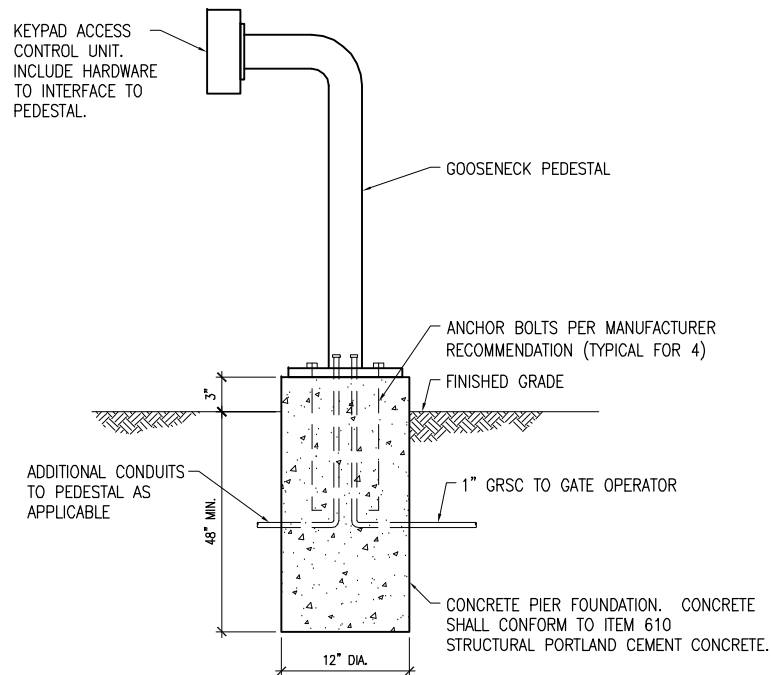
SCALE: NONE



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.



NOTES

1. SEE SPECIAL PROVISION SPECS FOR REQUIREMENTS ON KEYPAD ACCESS CONTROL UNIT.
2. INCLUDE #12 AWG EQUIPMENT GND WIRE TO KEYPAD.
3. KEYPAD SHALL NOT EXTEND BEYOND BOLLARDS.
4. KEYPAD ACCESS CONTROL UNIT AND GOOSENECK PEDESTAL SHALL BE POWDER-COATED FINISH, BLACK.

KEYPAD ACCESS CONTROL UNIT PEDESTAL ELEVATION DETAIL

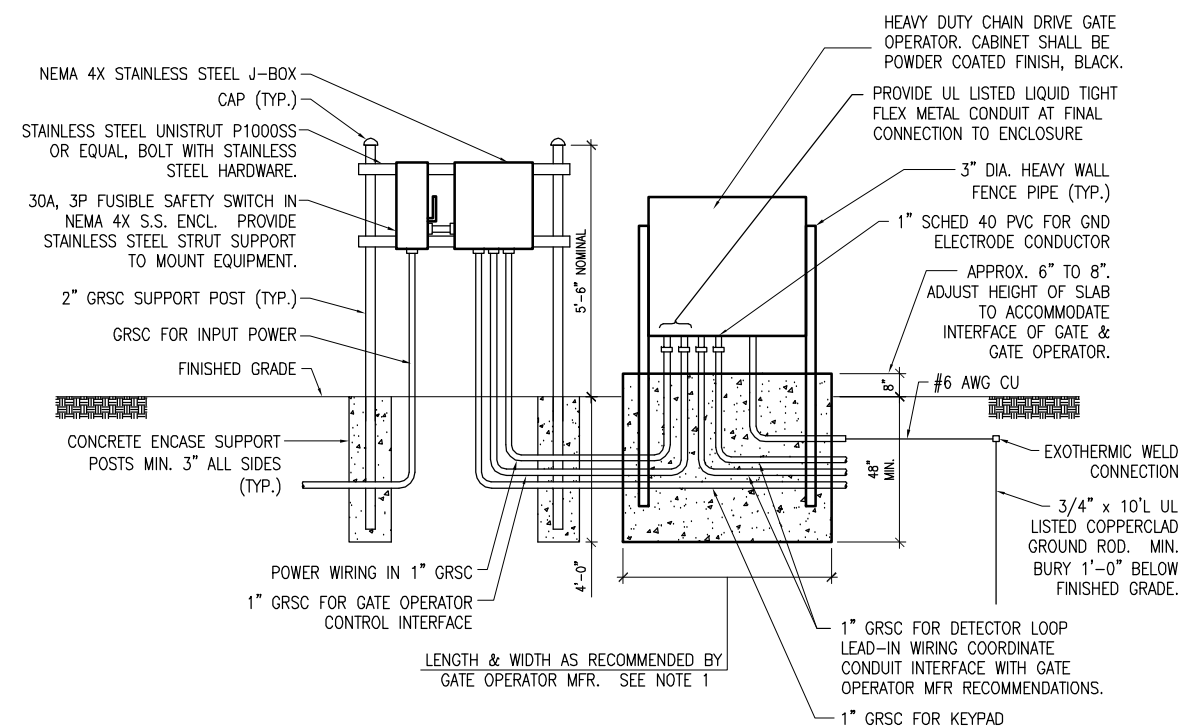
SCALE: NONE



NOTES

1. 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 (OR SIMILAR), AND IN ACCORDANCE WITH THE RESPECTIVE GATE OPERATOR MANUFACTURER'S RECOMMENDATIONS.

WARNING SIGN DETAIL



NOTES

1. FOUNDATION FOR GATE OPERATOR SHALL BE 48" MIN. IN DEPTH AND OF THE LENGTH & WIDTH RECOMMENDED BY THE MANUFACTURER. CONFIRM MOUNTING REQUIREMENTS WITH THE RESPECTIVE GATE OPERATOR MANUFACTURER.
2. COORDINATE CONDUITS INTO FOUNDATION.
3. CONFIRM CONDUIT SIZES AND WIRING REQUIREMENTS WITH THE GATE OPERATOR MFR. ADJUST/INCREASE CONDUIT SIZES WHERE APPLICABLE. REQUIREMENTS VARY BETWEEN DIFFERENT MANUFACTURERS.
4. 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.

GATE OPERATOR FOUNDATION DETAIL

"NOT TO SCALE"

LEGEND PLATE SCHEDULE	
DEVICE	LABEL
GATE #1 GATE OPERATOR DISCONNECT	GATE #1 480VAC FED FROM POWER RACK
GATE #2 GATE OPERATOR DISCONNECT	GATE #2 480VAC FED FROM POWER RACK

NOTE: LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC OR PHENOLIC MATERIAL, 1/4" HIGH BLACK LETTERS ON A WHITE BACKGROUND UNLESS NOTED OTHERWISE. SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS. FURNISH ADDITIONAL LEGEND PLATES WHERE REQUIRED BY CODE, FOR ADDITIONAL EQUIPMENT, AS DETAILED HEREIN ON THE PLANS, AND AS NOTED IN THE SPECIAL PROVISION SPECIFICATIONS.

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
WAUKEGAN PORT DISTRICT
3580 North McArae Road
Waukegan, Illinois 60087
Telephone: 847.244.0066
Fax: 847.244.3813



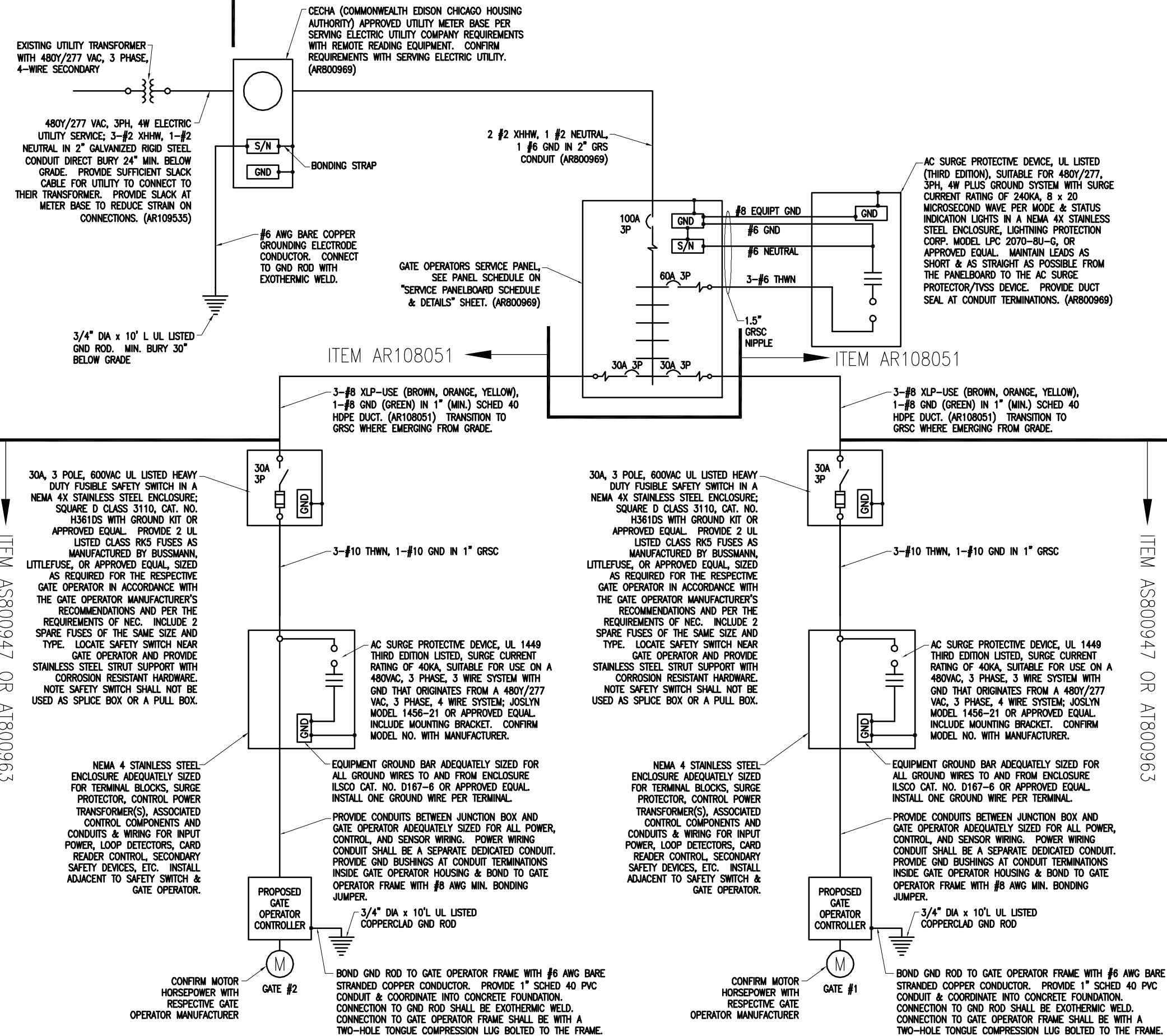
Hanson No.	10A0151D	READER	DATE
Filename	39 - ELECTRICAL CARD	JFC	4/18/11
Scale	N/A	JFC	4/18/11
Date	APRIL 22, 2011	RWH	4/22/11
LAYOUT			
DRAWN			
REVIEWED			

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Oak Brook, Illinois 60523

KEYPAD UNIT, BOLLARD AND
GATE OPERATOR DETAILS
INSTALL PERIMETER FENCE, PHASE 1
IDA No. UGN-4076 AIP No. 3-17-0105-B51

ITEM AR109535

ITEM AR800969



NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.
2. ALL COMED SERVICE WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING FUEL FARM SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT MANAGER AND/OR AIRPORT REPRESENTATIVE. 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 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
3. SEE "ELECTRICAL LEGEND AND ABBREVIATIONS" SHEET FOR GENERAL NOTES AND REQUIREMENTS.
4. 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.
5. ALL EQUIPMENT AND MATERIALS NOT LABELED AS EXISTING ARE NEW.
6. HIGH VOLTAGE & LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME RACEWAY.
7. ALL CONDUCTORS/WIRING SHALL BE COPPER
8. CONTRACTOR SHALL CONFIRM POWER REQUIREMENTS WITH THE ACTUAL NAMEPLATE ON EACH GATE OPERATOR (OR OTHER RESPECTIVE EQUIPMENT) AND ADJUST CIRCUIT BREAKER, WIRE SIZES AND CONDUIT SIZES TO CONFORM WITH NEC AND MANUFACTURER'S RECOMMENDATIONS WHERE APPLICABLE. WIRE SIZES SHOWN ON THE PLANS ARE MINIMUM.
9. CONFIRM CONTROL WIRING REQUIREMENTS WITH THE RESPECTIVE GATE OPERATOR SYSTEM MANUFACTURER'S REPRESENTATIVE.
10. GATE OPERATORS SHALL BE RATED FOR THE RESPECTIVE VOLTAGE AVAILABLE AT THE SITE AND SHALL PROPERLY OPERATE ON THE RESPECTIVE NOMINAL VOLTAGE SYSTEM PLUS OR MINUS 10 PERCENT. CONTRACTOR SHALL CONFIRM WITH THE GATE OPERATOR MANUFACTURER THAT THE RESPECTIVE GATE OPERATOR HE SELECTS IS RATED SUITABLE FOR THE RESPECTIVE APPLICATION, IS SUITABLE AND COMPATIBLE WITH THE RESPECTIVE GATE, AND WILL OPERATE PROPERLY ON THE RESPECTIVE POWER SUPPLY. NOTE THE GATE OPERATOR MUST ALSO OPERATE PROPERLY ON STANDBY ENGINE GENERATOR POWER AND SHALL NOT REQUIRE MANUAL RESET DUE TO TRANSFER FROM UTILITY POWER TO STANDBY GENERATOR POWER OR BACK TO UTILITY POWER. THE GATE OPERATOR MUST NOT REQUIRE MANUAL RESET FOR MOMENTARY POWER OUTAGES. WHERE A POWER OUTAGE OCCURS THE GATE OPERATOR SHALL AUTOMATICALLY RESUME NORMAL OPERATION UPON RESTORATION OF POWER.

REVISION	DATE

WAUKEGAN REGIONAL AIRPORT
 WAUKEGAN PORT DISTRICT
 3580 North McArae Road
 Waukegan, Illinois 60087
 Telephone: 847.244.0066
 Fax: 847.244.3813



DESCRIPTION	DATE	BY	FOR
LAYOUT	4/18/11	JFC	JFC
DRAWN	4/18/11	JFC	JFC
REVIEWED	4/22/11	RWH	RWH

Hanson No. 10A0151D
 Element 40 - ELECTRICAL SINGLE LINE
 Scale N/A
 Date APRIL 22, 2011

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 815 Commerce Drive, Suite 200
 Oak Brook, Illinois 60523

ELECTRIC SLIDE GATE
 ONE LINE DIAGRAM

INSTALL PERMETER FENCE, PHASE 1
 IDA No. UGN-4076 AIP No. 3-17-0105-B51