

KANKAKEE VALLEY AIRPORT AUTHORITY

KANKAKEE, ILLINOIS

CONSTRUCTION PLANS FOR GREATER KANKAKEE AIRPORT

CONSTRUCT A NEW AIRFIELD ELECTRICAL VAULT AND REPLACE APRON LIGHTING

ILLINOIS PROJECT: IKK-4882
 S.B.G. PROJECT: 3-17-SBGP-171

NOVEMBER 19, 2021

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SUMMARY OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	RECORD QUANTITY
AR101510	AIRPORT ROTATING BEACON	EACH	1	
AR101900	BEACON REMOVAL	EACH	1	
AR106504	APRON LIGHT POLE W/QUAD FIXTURE	EACH	4	
AR106905	REMOVE LIGHT POLE & FIXTURE	EACH	2	
AR106910	REMOVE LIGHT FIXTURE	EACH	3	
AR108040	1/C #4/0 600V UG CABLE	FOOT	60	
AR108081	1/C #1 XLP-USE	FOOT	70	
AR108084	1/C #4 XLP-USE	FOOT	1650	
AR108086	1/C #6 XLP-USE	FOOT	775	
AR108088	1/C #8 XLP-USE	FOOT	3950	
AR108090	1/C #10 XLP-USE	FOOT	4650	
AR108108	1/C #8 5KV UG CABLE	FOOT	1150	
AR109110	ERECT PREFABRICATED VAULT	L SUM	1	
AR109311	7.5 KW REGULATOR, STYLE 1	EACH	1	
AR109331	15 KW REGULATOR, STYLE 1	EACH	4	
AR109342	20 KW REGULATOR, STYLE 2	EACH	2	
AR109400	POWER DISTRIBUTION SYSTEM	L SUM	1	
AR109535	ELECTRIC SERVICE ENTRANCE	L SUM	1	
AR109610	L - 854 PCAL SYSTEM	L SUM	1	
AR109902	REMOVE ELECTRICAL EQUIPMENT	L SUM	1	
AR109903	REMOVE REGULATOR	EACH	7	
AR110012	2" DIRECTIONAL BORE	FOOT	35	
AR110202	2" PVC DUCT, DIRECT BURY	FOOT	1275	
AR110214	4" STEEL DUCT, DIRECT BURY	FOOT	60	
AR110504	4-WAY CONCRETE ENCASED DUCT	FOOT	20	
AR110508	8-WAY CONCRETE ENCASED DUCT	FOOT	105	
AR150510	ENGINEER'S FIELD OFFICE	L SUM	1	
AR150520	MOBILIZATION	L SUM	1	
AR152411	UNCLASSIFIED EXCAVATION	L SUM	1	
AR152621	REMOVE CONCRETE	CU YD	55	
AR156510	SILT FENCE	FOOT	115	
AR156513	SEPARATION FABRIC	SQ YD	20	
AR156520	INLET PROTECTION	EACH	2	
AR156531	EROSION CONTROL BLANKET	SQ YD	1215	
AR162810	CLASS E FENCE 10' W/2' BURY	FOOT	120	
AR162900	REMOVE CLASS E FENCE	FOOT	150	
AR208515	POROUS GRANULAR EMBANKMENT	CU YD	8	
AR208604	4" AGGREGATE BASE COURSE	SQ YD	20	
AR401502	BITUMINOUS SURFACE COURSE - 2"	SQ YD	22	
AR401900	REMOVE BITUMINOUS PAVEMENT	SQ YD	4	
AR401910	REMOVE & REPLACE BIT. PAVEMENT	SQ YD	15	
AR501605	5" PCC SIDEWALK	SQ FT	580	
AR760999	WELL ABANDONMENT	EACH	1	
AR800024	BUILDING DEMOLITION	L SUM	1	
AR800056	VAULT FOUNDATION AND FLOOR	L SUM	1	
AR800077	TEMPORARY AIRFIELD VAULT CONNECTIONS	L SUM	1	
AR800078	600CMIL 600V UG CABLE	FOOT	240	
AR800112	ELECTRICAL HANDHOLE, TYPE 1	EACH	4	
AR800113	ELECTRICAL HANDHOLE, TYPE 2	EACH	2	
AR800121	BITUMINOUS BASE COURSE	SQ YD	22	
AR800178	FIBER OPTIC CABLE	FOOT	200	
AR800192	INSTALL ALCMS L-890	L SUM	1	
AR901515	SEEDING	SQ YD	1215	
AR910200	ROADWAY SIGN	EACH	2	
AR910420	BOLLARD	EACH	10	

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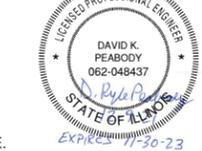
SUBMITTED BY ASAD BAJWA, PE EXPIRES 02/28/2022

DATE DECEMBER 9 2021

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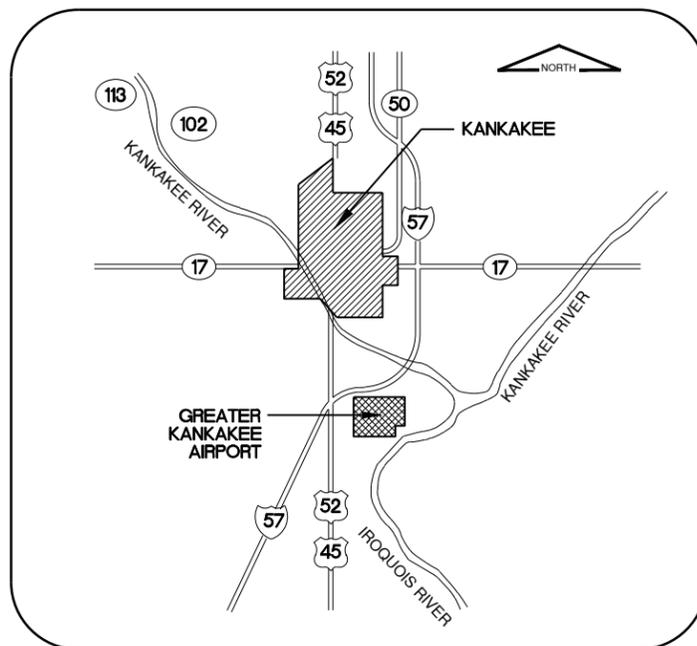
SUBMITTED BY D. KYLE PEABODY, P.E. EXPIRES 11/30/23

DATE DECEMBER 9 2021

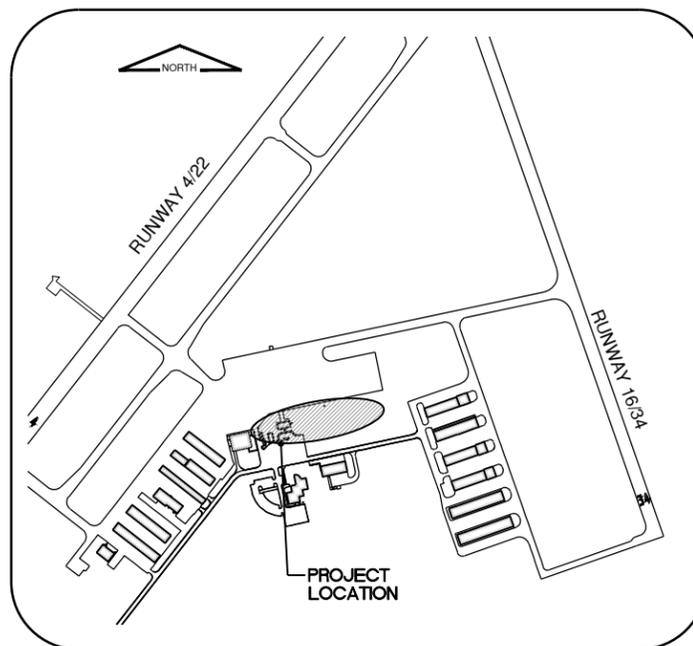
KANKAKEE VALLEY AIRPORT AUTHORITY

APPROVED BY Jeff Benoit
 JEFF BENOIT, AIRPORT MANAGER

DATE 12-10 2021



LOCATION MAP



SITE PLAN

TERMINAL APRON

DESIGN AIRCRAFT APPROACH CATEGORY: D
 AIRPLANE DESIGN GROUP: II
 TAXIWAY DESIGN GROUP: II
 CRITICAL AIRCRAFT: GULFSTREAM IV

**KANKAKEE VALLEY AIRPORT AUTHORITY
 GREATER KANKAKEE AIRPORT**

SECTION: 21 COUNTY: KANKAKEE
 RANGE: R 12 E TOWNSHIP: OTTO
 TOWNSHIP: T 30 N

UNICOM RADIO FREQUENCY - 123.0



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NOVEMBER 19, 2021

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OWNER



**GREATER KANKAKEE AIRPORT
KANKAKEE, ILLINOIS**

MARK	DATE	DESCRIPTION

CMT PROJECT NO: 200075-02
 CAD DWG FILE: CONSTRUCTION ACTIVITY PLAN - 1.DWG
 DESIGNED BY: MFZ
 DRAWN BY: JRO
 CHECKED BY: ARM
 APPROVED BY: DKP
 COPYRIGHT:

SHEET TITLE
**CONSTRUCTION
 ACTIVITY PLAN**

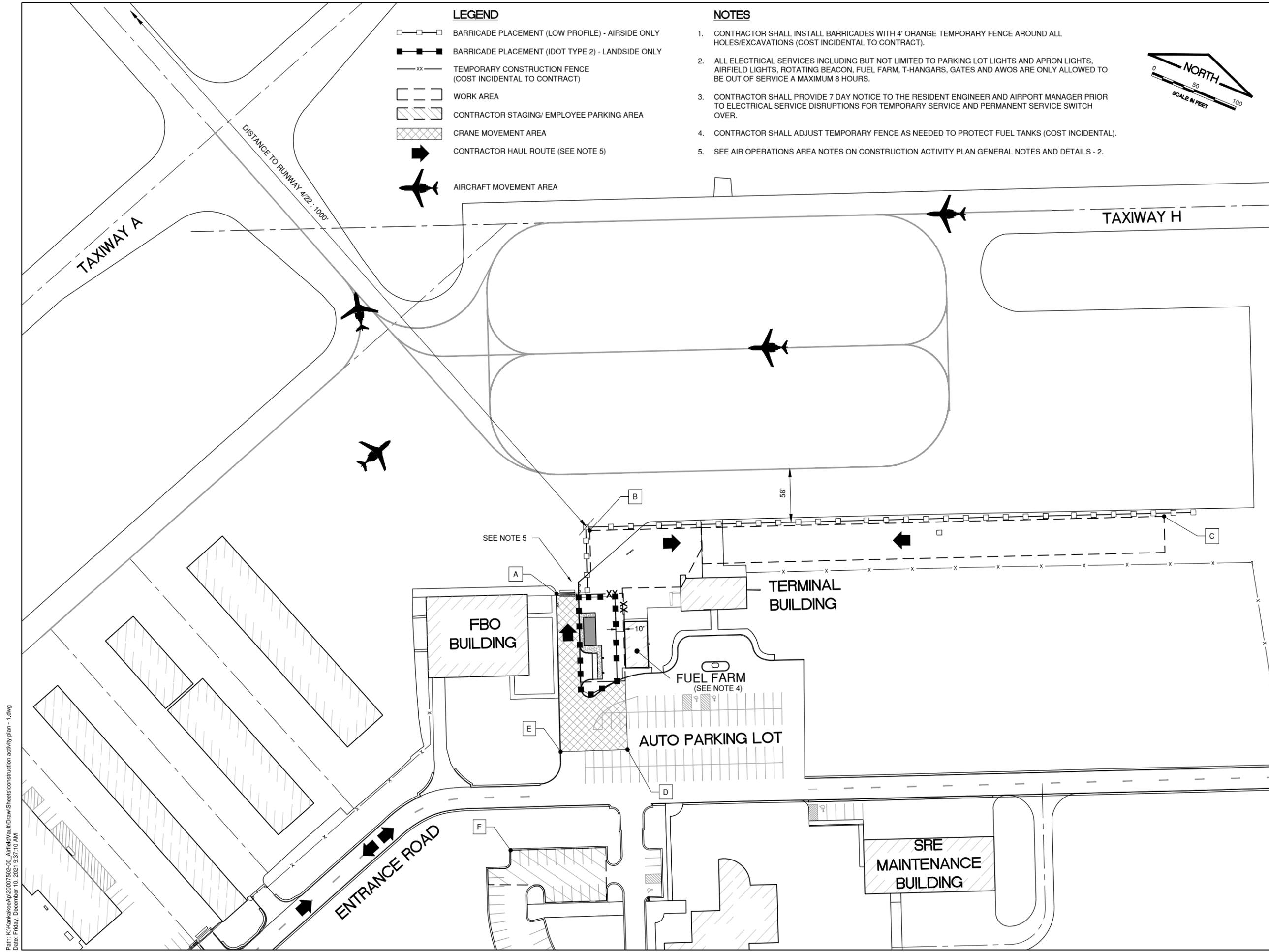
SHEET 3 OF 24

LEGEND

- BARRICADE PLACEMENT (LOW PROFILE) - AIRSIDE ONLY
- BARRICADE PLACEMENT (IDOT TYPE 2) - LANDSIDE ONLY
- TEMPORARY CONSTRUCTION FENCE (COST INCIDENTAL TO CONTRACT)
- WORK AREA
- CONTRACTOR STAGING/ EMPLOYEE PARKING AREA
- CRANE MOVEMENT AREA
- CONTRACTOR HAUL ROUTE (SEE NOTE 5)
- AIRCRAFT MOVEMENT AREA

NOTES

1. CONTRACTOR SHALL INSTALL BARRICADES WITH 4' ORANGE TEMPORARY FENCE AROUND ALL HOLES/EXCAVATIONS (COST INCIDENTAL TO CONTRACT).
2. ALL ELECTRICAL SERVICES INCLUDING BUT NOT LIMITED TO PARKING LOT LIGHTS AND APRON LIGHTS, AIRFIELD LIGHTS, ROTATING BEACON, FUEL FARM, T-HANGARS, GATES AND AWOS ARE ONLY ALLOWED TO BE OUT OF SERVICE A MAXIMUM 8 HOURS.
3. CONTRACTOR SHALL PROVIDE 7 DAY NOTICE TO THE RESIDENT ENGINEER AND AIRPORT MANAGER PRIOR TO ELECTRICAL SERVICE DISRUPTIONS FOR TEMPORARY SERVICE AND PERMANENT SERVICE SWITCH OVER.
4. CONTRACTOR SHALL ADJUST TEMPORARY FENCE AS NEEDED TO PROTECT FUEL TANKS (COST INCIDENTAL).
5. SEE AIR OPERATIONS AREA NOTES ON CONSTRUCTION ACTIVITY PLAN GENERAL NOTES AND DETAILS - 2.





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KANKAKEE, ILLINOIS

MARK DATE DESCRIPTION

CMT PROJECT NO: 200075-02

CAD DWG FILE: SITE PLAN - VAULT.DWG

DESIGNED BY: LN

DRAWN BY: JRO

CHECKED BY: ARM

APPROVED BY: AB

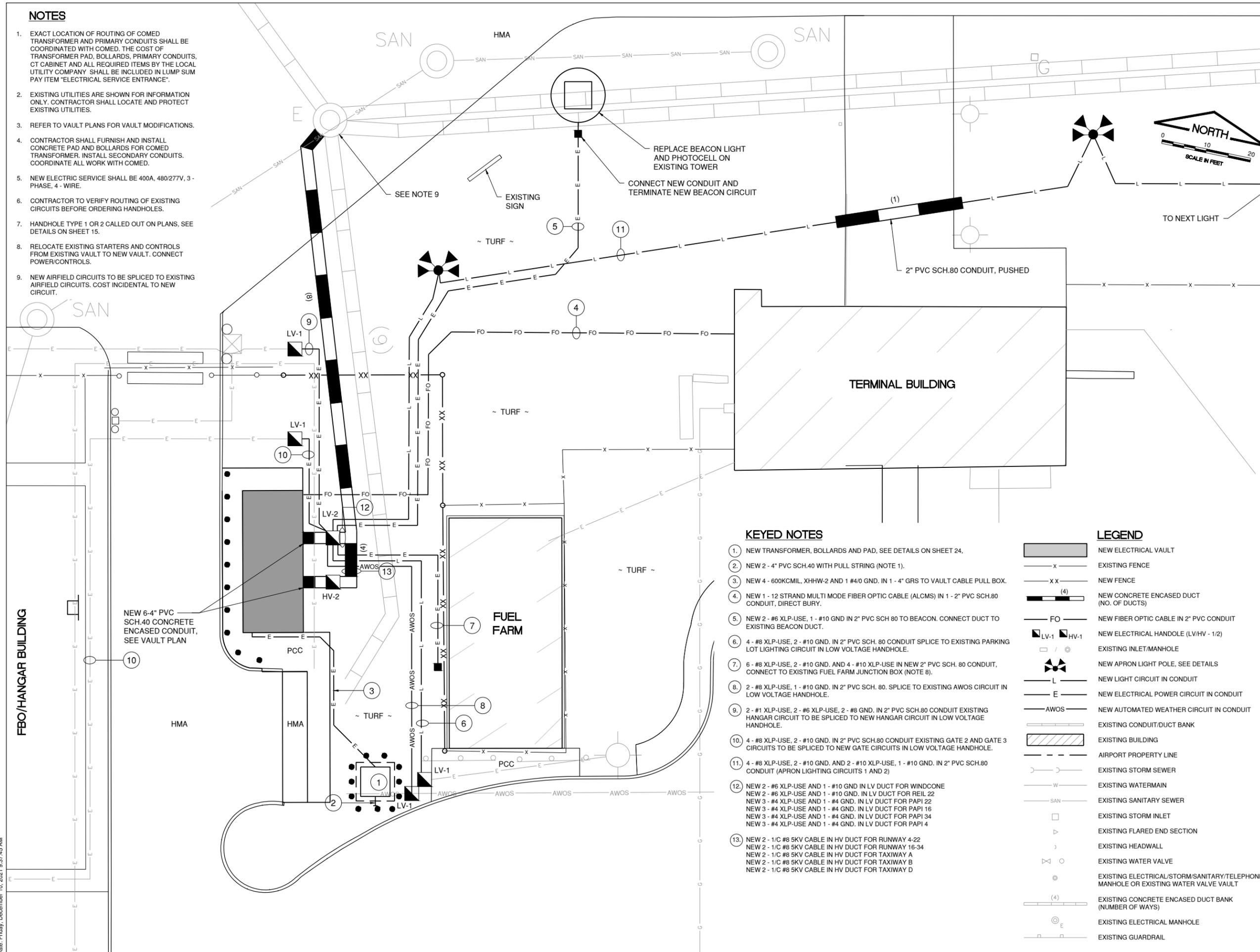
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ELECTRICAL SITE PLAN

NOTES

1. EXACT LOCATION OF ROUTING OF COMED TRANSFORMER AND PRIMARY CONDUITS SHALL BE COORDINATED WITH COMED. THE COST OF TRANSFORMER PAD, BOLLARDS, PRIMARY CONDUITS, CT CABINET AND ALL REQUIRED ITEMS BY THE LOCAL UTILITY COMPANY SHALL BE INCLUDED IN LUMP SUM PAY ITEM "ELECTRICAL SERVICE ENTRANCE".
2. EXISTING UTILITIES ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UTILITIES.
3. REFER TO VAULT PLANS FOR VAULT MODIFICATIONS.
4. CONTRACTOR SHALL FURNISH AND INSTALL CONCRETE PAD AND BOLLARDS FOR COMED TRANSFORMER. INSTALL SECONDARY CONDUITS. COORDINATE ALL WORK WITH COMED.
5. NEW ELECTRIC SERVICE SHALL BE 400A, 480/277V, 3-PHASE, 4-WIRE.
6. CONTRACTOR TO VERIFY ROUTING OF EXISTING CIRCUITS BEFORE ORDERING HANDHOLES.
7. HANDHOLE TYPE 1 OR 2 CALLED OUT ON PLANS, SEE DETAILS ON SHEET 15.
8. RELOCATE EXISTING STARTERS AND CONTROLS FROM EXISTING VAULT TO NEW VAULT. CONNECT POWER/CONTROLS.
9. NEW AIRFIELD CIRCUITS TO BE SPLICED TO EXISTING AIRFIELD CIRCUITS. COST INCIDENTAL TO NEW CIRCUIT.



KEYED NOTES

1. NEW TRANSFORMER, BOLLARDS AND PAD, SEE DETAILS ON SHEET 24.
2. NEW 2 - 4" PVC SCH.40 WITH PULL STRING (NOTE 1).
3. NEW 4 - 600KCMIL, XHHW-2 AND 1 #4/0 GND. IN 1 - 4" GRS TO VAULT CABLE PULL BOX.
4. NEW 1 - 12 STRAND MULTI MODE FIBER OPTIC CABLE (ALCMS) IN 1 - 2" PVC SCH.80 CONDUIT, DIRECT BURY.
5. NEW 2 - #6 XLP-USE, 1 - #10 GND IN 2" PVC SCH.80 TO BEACON. CONNECT DUCT TO EXISTING BEACON DUCT.
6. 4 - #8 XLP-USE, 2 - #10 GND. IN 2" PVC SCH. 80 CONDUIT SPLICE TO EXISTING PARKING LOT LIGHTING CIRCUIT IN LOW VOLTAGE HANDHOLE.
7. 6 - #8 XLP-USE, 2 - #10 GND. AND 4 - #10 XLP-USE IN NEW 2" PVC SCH. 80 CONDUIT, CONNECT TO EXISTING FUEL FARM JUNCTION BOX (NOTE 8).
8. 2 - #8 XLP-USE, 1 - #10 GND. IN 2" PVC SCH. 80. SPLICE TO EXISTING AWOS CIRCUIT IN LOW VOLTAGE HANDHOLE.
9. 2 - #1 XLP-USE, 2 - #6 XLP-USE, 2 - #8 GND. IN 2" PVC SCH.80 CONDUIT EXISTING HANGAR CIRCUIT TO BE SPLICED TO NEW HANGAR CIRCUIT IN LOW VOLTAGE HANDHOLE.
10. 4 - #8 XLP-USE, 2 - #10 GND. IN 2" PVC SCH.80 CONDUIT EXISTING GATE 2 AND GATE 3 CIRCUITS TO BE SPLICED TO NEW GATE CIRCUITS IN LOW VOLTAGE HANDHOLE.
11. 4 - #8 XLP-USE, 2 - #10 GND. AND 2 - #10 XLP-USE, 1 - #10 GND. IN 2" PVC SCH.80 CONDUIT (APRON LIGHTING CIRCUITS 1 AND 2)
12. NEW 2 - #6 XLP-USE AND 1 - #10 GND IN LV DUCT FOR WINDCONE
NEW 2 - #6 XLP-USE AND 1 - #10 GND. IN LV DUCT FOR REIL 22
NEW 3 - #4 XLP-USE AND 1 - #4 GND. IN LV DUCT FOR PAPI 22
NEW 3 - #4 XLP-USE AND 1 - #4 GND. IN LV DUCT FOR PAPI 16
NEW 3 - #4 XLP-USE AND 1 - #4 GND. IN LV DUCT FOR PAPI 34
NEW 3 - #4 XLP-USE AND 1 - #4 GND. IN LV DUCT FOR PAPI 4
13. NEW 2 - 1/C #8 5KV CABLE IN HV DUCT FOR RUNWAY 4-22
NEW 2 - 1/C #8 5KV CABLE IN HV DUCT FOR RUNWAY 16-34
NEW 2 - 1/C #8 5KV CABLE IN HV DUCT FOR TAXIWAY A
NEW 2 - 1/C #8 5KV CABLE IN HV DUCT FOR TAXIWAY B
NEW 2 - 1/C #8 5KV CABLE IN HV DUCT FOR TAXIWAY D

LEGEND

- NEW ELECTRICAL VAULT
- EXISTING FENCE
- NEW FENCE
- NEW CONCRETE ENCASED DUCT (NO. OF DUCTS)
- NEW FIBER OPTIC CABLE IN 2" PVC CONDUIT
- NEW ELECTRICAL HANDHOLE (LV/HV - 1/2)
- EXISTING INLET/MANHOLE
- NEW APRON LIGHT POLE. SEE DETAILS
- NEW LIGHT CIRCUIT IN CONDUIT
- NEW ELECTRICAL POWER CIRCUIT IN CONDUIT
- NEW AUTOMATED WEATHER CIRCUIT IN CONDUIT
- EXISTING CONDUIT/DUCT BANK
- EXISTING BUILDING
- AIRPORT PROPERTY LINE
- EXISTING STORM SEWER
- EXISTING WATERMAIN
- EXISTING SANITARY SEWER
- EXISTING STORM INLET
- EXISTING FLARED END SECTION
- EXISTING HEADWALL
- EXISTING WATER VALVE
- EXISTING ELECTRICAL/STORM/SANITARY/TELEPHONE MANHOLE OR EXISTING WATER VALVE VAULT
- EXISTING CONCRETE ENCASED DUCT BANK (NUMBER OF WAYS)
- EXISTING ELECTRICAL MANHOLE
- EXISTING GUARDRAIL

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NOVEMBER 19, 2021

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OWNER

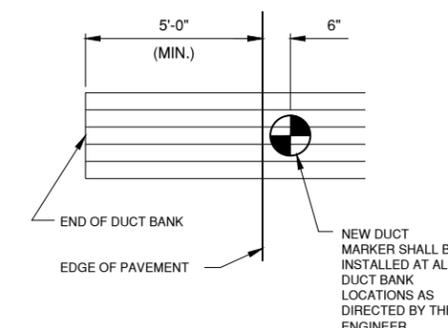
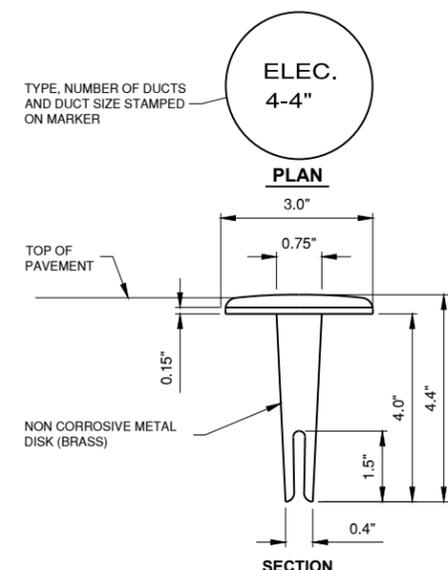


GREATER KANKAKEE AIRPORT
KANKAKEE, ILLINOIS

MARK	DATE	DESCRIPTION

CMT PROJECT NO: 200075-02
 CAD DWG FILE: ELECTRICAL DETAILS - 3.DWG
 DESIGNED BY: AB
 DRAWN BY: JRO
 CHECKED BY: AB
 APPROVED BY: AB
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SHEET TITLE
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 DETAILS - 1**

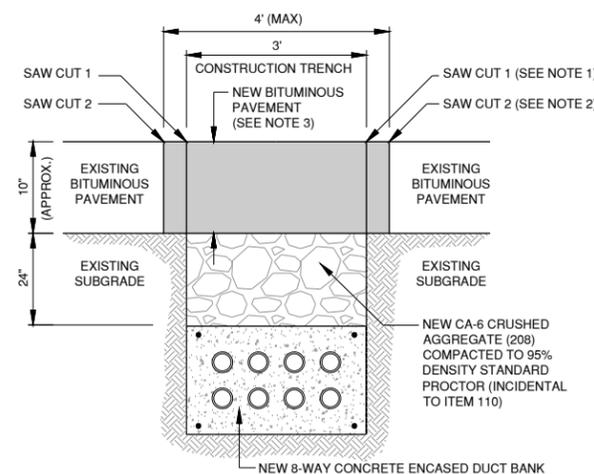


MARKER PLACEMENT

DUCT MARKERS SHALL BE RECESSED AND GROUTED INTO THE PAVEMENTS.

DUCT MARKER DETAILS

N.T.S.

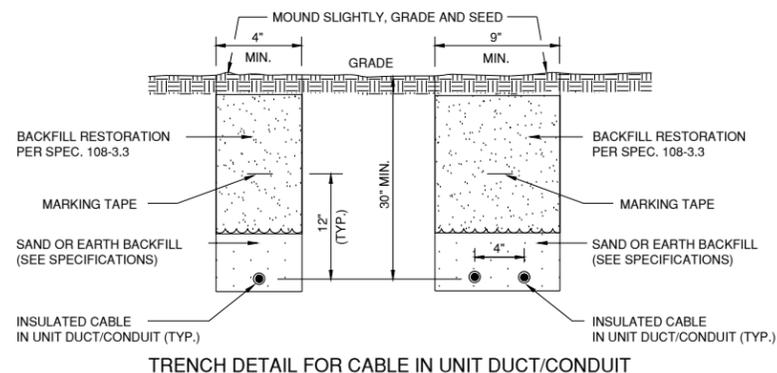


CONCRETE ENCASED DUCT PAVEMENT PATCH CONSTRUCTION

NOT TO SCALE

NOTES

- SAW CUT 1 WILL BE PERFORMED PRIOR TO ANY EXCAVATION OF THE BITUMINOUS PAVEMENT AT THE LOCATION OF THE PROPOSED CONCRETE ENCASED DUCT BANK.
- SAW CUT 2 WILL BE PERFORMED IF NECESSARY AFTER ALL WORK INCLUDING BUT NOT LIMITED TO: EXCAVATION OF TRENCH, PLACEMENT OF NEW DUCT BANK AND PLACEMENT OF NEW DUCT BANK AND PLACEMENT OF NEW 610 CONCRETE PAVEMENT.
- PROPOSED BITUMINOUS PATCH SHALL BE CONSTRUCTED IN LIFTS OF 3" WITH TACK COAT BETWEEN EACH LIFT.

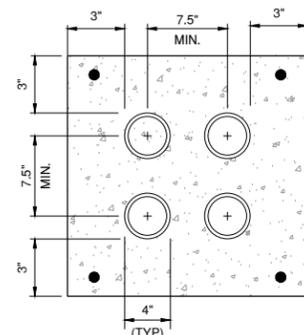


TRENCH DETAIL FOR CABLE IN UNIT DUCT/CONDUIT

NOT TO SCALE

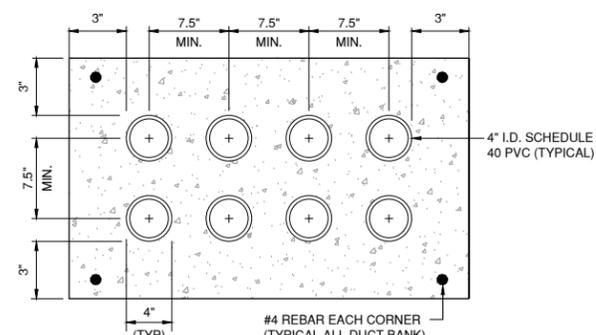
NOTES

- TRENCHES WITH MORE THAN 2 CABLES SHALL BE INCREASED 3" IN WIDTH FOR EACH ADDITIONAL CABLE. IF SPECIFIED ON PLANS, TWO PARALLEL TRENCHES MAY BE CONSTRUCTED.
- DEPTH OF TRENCHES FOR AIRFIELD LIGHTING SHALL BE AS SHOWN ABOVE UNLESS OTHERWISE SPECIFIED ON THE PLANS. DEPTH OF FAA CABLES SHALL BE 36" UNLESS OTHERWISE SHOWN.
- SAND BACKFILL SHALL BE USED IF THE EXISTING SOIL DOES NOT MEET THE BACKFILL REQUIREMENTS.
- ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST IS INCIDENTAL TO TRENCH RETURNING MATERIALS.
- THE CONTRACTOR SHALL HAVE THE OPTION TO TRENCH OR PLOW UNIT DUCT. NO ADDITIONAL PAYMENT SHALL BE MADE FOR TRENCHING.



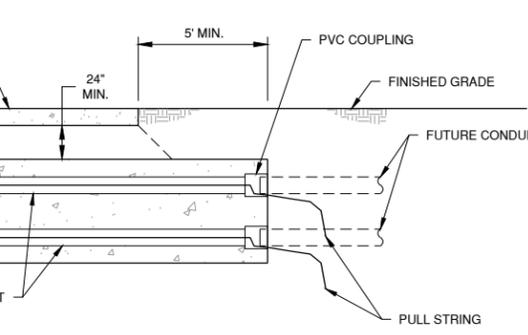
4-WAY DUCT BANK DETAIL

N.T.S.



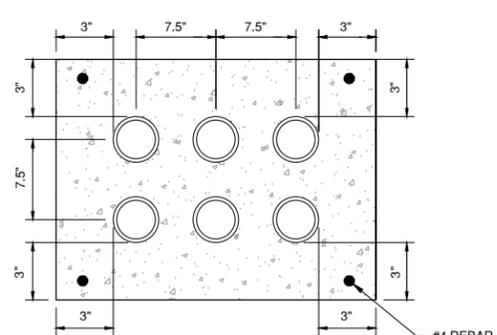
8-WAY DUCT BANK DETAIL

N.T.S.



DUCT BANK TYPICAL SECTION

N.T.S.

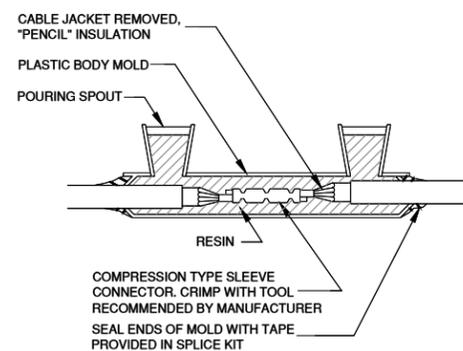


6-WAY DUCT BANK DETAIL

N.T.S.

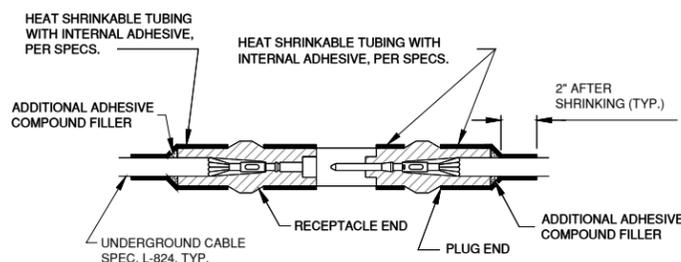
NOTES

- DIMENSIONS SHOWN ARE MINIMUM.
- TOP OF CONCRETE ENCASEMENT SHALL BE NOT LESS THAN 24" BELOW FINISHED SUBGRADE BELOW PAVEMENTS AND NOT LESS THAN 24" BELOW FINISHED GRADE IN UNPAVED AREAS. EXCEPT WHERE DIRECTED OTHERWISE BY ENGINEER. AVOID ALL CONFLICTS WITH OTHER UTILITIES (UNDERDRAINS, WATER LINES, SEWER LINES, TELEPHONE, ELECTRICAL) OR OTHER OBSTACLES, ADJUSTING DEPTH AS NECESSARY.
- CONCRETE SHALL BE ITEM 610.
- CONDUIT FOR CONCRETE ENCASEMENT SHALL BE SCHEDULE 40 PVC, 4" NOMINAL DIAMETER, OR AS INDICATED ON THE PLANS.
- CONCRETE ENCASEMENT SHALL EXTEND A MINIMUM OF 5'-0" BEYOND EDGES OF PAVEMENT, OR AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
- #4 REBAR SHALL BE INSTALLED CONTINUOUS THE LENGTH OF THE CONCRETE ENCASEMENT.
- DUCT BANK SHALL BE STACKED NO MORE THAN THREE CONDUITS HIGH UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- AT ENDS OF DUCT BANKS, INSTALL A PVC COUPLING FLUSH WITH END OF CONCRETE FOR CONNECTING FUTURE CONDUIT. INSTALL POLYETHYLENE PULL STRING, GREENLEE, OR EQUIVALENT. PLUG THE ENDS OF UNUSED SPARE CONDUITS WITH WOODEN PLUGS.
- HIGH VOLTAGE WIRING, RUNWAY & TAXIWAY SERIES CIRCUIT WIRING, ETC., AND POWER WIRING OVER 480V SHALL BE INSTALLED IN SEPARATE CONDUITS FROM LOW VOLTAGE WIRING, 480V OR LESS.
- LOCATIONS SHOWN ARE APPROXIMATE. DUCT BANKS SHALL BE INSTALLED AT LOCATIONS DESIGNATED BY THE ENGINEER.
- IF POSSIBLE, INSTALL FIBER OPTIC CABLES AND COMMUNICATION CABLES (FAA, ETC.) IN THEIR OWN CONDUITS, OTHERWISE, INSTALL THEM IN THE CONDUITS WITH LOW VOLTAGE WIRING.



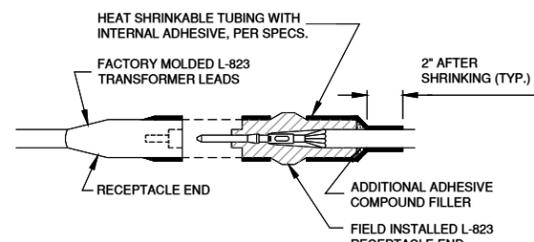
TYPE A

FOR IN-LINE CONNECTIONS OF EXISTING CABLES CUT DURING CONSTRUCTIONS.



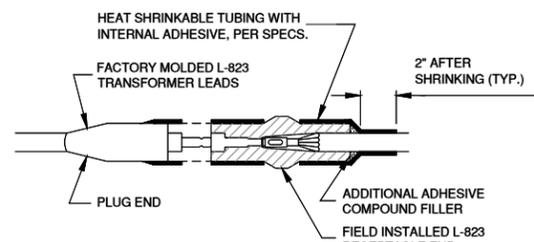
TYPE B

NOT TO BE USED IN THIS PROJECT UNLESS OTHERWISE DIRECTED BY ENGINEER



TYPE C

FOR SPLICES AT TAXIWAY LIGHTS AND SIGNS.



TYPE D

FOR SPLICES AT TAXIWAY LIGHTS AND SIGNS.

CABLE SPLICES

N.T.S.

NOTES

- INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
- THE COST OF FURNISHING AND INSTALLING ALL SPLICE MATERIALS SHALL BE INCIDENTAL TO THE ASSOCIATED CABLE ITEMS.
- THE CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) TYPE A SPLICE KITS ON THE JOB SITE AT ALL TIMES FOR EMERGENCY REPAIRS.
- CONTRACTOR MAY INSTALL FAA APPROVED L-823 "COMPLETE KIT" IN LIEU OF SPLICES WITH HEAT SHRINK.



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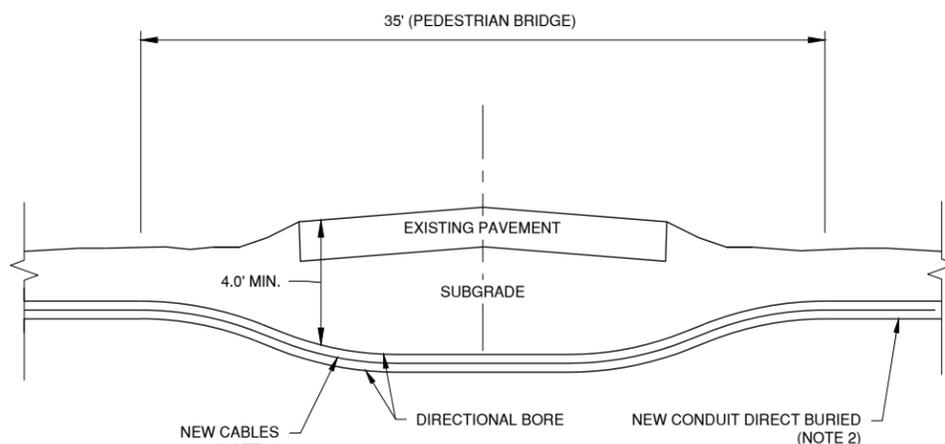
MARK	DATE	DESCRIPTION

CMT PROJECT NO: 200075-02
CAD DWG FILE: ELECTRICAL DETAILS - 4.DWG
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SHEET TITLE
**ELECTRICAL
DETAILS - 2**

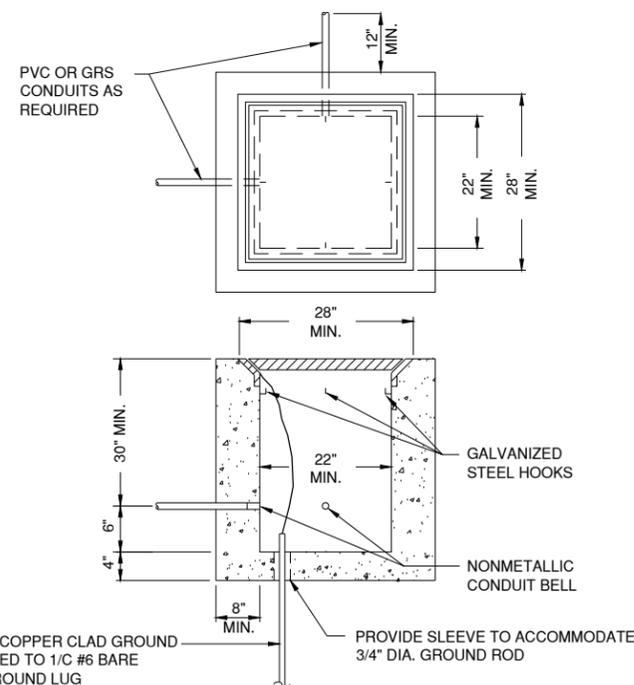
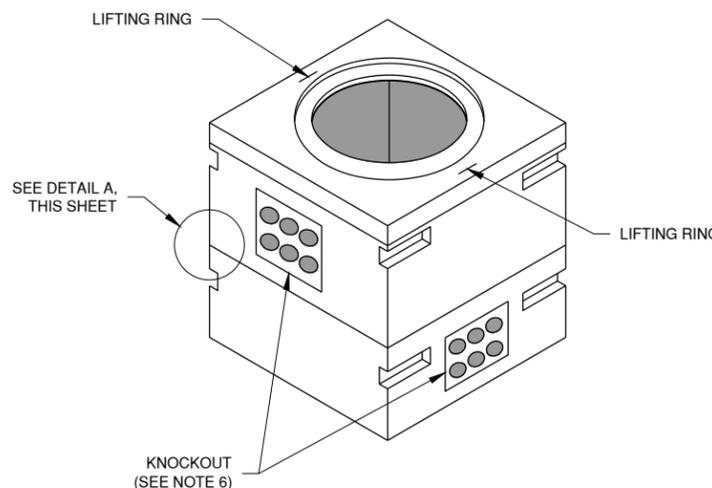
NOTES

- THE HANDHOLE/GRADE RING/HANDHOLE LID ASSEMBLY SHALL BE CONSTRUCTED TO MEET OR EXCEED THE FOLLOWING LOADINGS:
A. EARTHLOAD = 2 FEET FILL AT 130 LBS/FT.
B. SURCHARGE = 2 FEET FILL AT 130 LBS/FT.
C. LIVE LOAD = A.A.S.H.T.O. HS-20 TRUCK WITH 20% IMPACT
D. $f_c = 4,500$ P.S.I.
E. $f_y = 60,000$ P.S.I.
F. ULTIMATE STRENGTH DESIGN METHOD
THE SUPPLIER SHALL PROVIDE CERTIFICATION THAT THE HANDHOLES MEET OR EXCEED THESE REQUIREMENTS PRIOR TO INSTALLATION.
- THE HANDHOLE CONSTRUCTION AND INSTALLATION SHALL BE WATERTIGHT. ALL CONSTRUCTION JOINTS AND DUCTS SHALL BE SEALED TO PREVENT WATER ENTRY. ALL UNUSED DUCT BANK OPENINGS IN HANDHOLE SHALL BE SEALED WITH METAL PLATES TREATED FOR CORROSION RESISTANCE AND BOLTED INTO PLACE. MATING SURFACES SHALL BE SEALED USING BUTYL SEALANT.
- THE HANDHOLE LID ASSEMBLY SHALL BE INSTALLED SLIGHTLY ABOVE THE SURROUNDING FINAL GRADE AND THE EARTH SHALL BE GRADED TO IT.
- THE HANDHOLE COVER SHALL BE LOCKABLE UTILIZING A PENTAGON BOLT ASSEMBLY.
- PROPOSED ELECTRICAL HANDHOLE SHALL BE THE FOLLOWING INTERIOR DIMENSIONS: 4' L x 4' W x 4' H
- SINGLE HANDHOLES: KNOCKOUTS SHALL BE CENTERED IN THE HANDHOLE WALL AND SHALL BE PROVIDED FOR IN EACH DIRECTION. WHERE KNOWN, SIZE SHALL BE AS REQUIRED FOR PROPOSED ENTRANCE, OTHERWISE 6 - 4" OPENINGS (MINIMUM) SHALL BE PROVIDED AND CAPPED FOR FUTURE USE.
- HANDHOLES THAT MAKE UP A HANDHOLE PLAZA: THE WALL KNOCKOUTS FOR THE NORTH/SOUTH WALLS SHALL BE PLACED AT HIGHER OR LOWER ELEVATIONS THAN THE WALL KNOCKOUTS FOR THE EAST/WEST WALLS TO ALLOW THE DUCTS TO CROSS. KNOCKOUTS SHALL BE SIZED AS REQUIRED FOR PROPOSED DUCT BANK.
- THE HANDHOLE CONCRETE TOP LID SHALL BE SET THAT IF DESIRED, THE CONCRETE TOP LID MAY BE REMOVED BY USE OF THE LIFTING RINGS.
- COVER SHALL BE STAMPED "LOW VOLTAGE" OR "HIGH VOLTAGE". LOW VOLTAGE OR HIGH VOLTAGE SPECIFIED ON ELECTRICAL SITE PLAN.



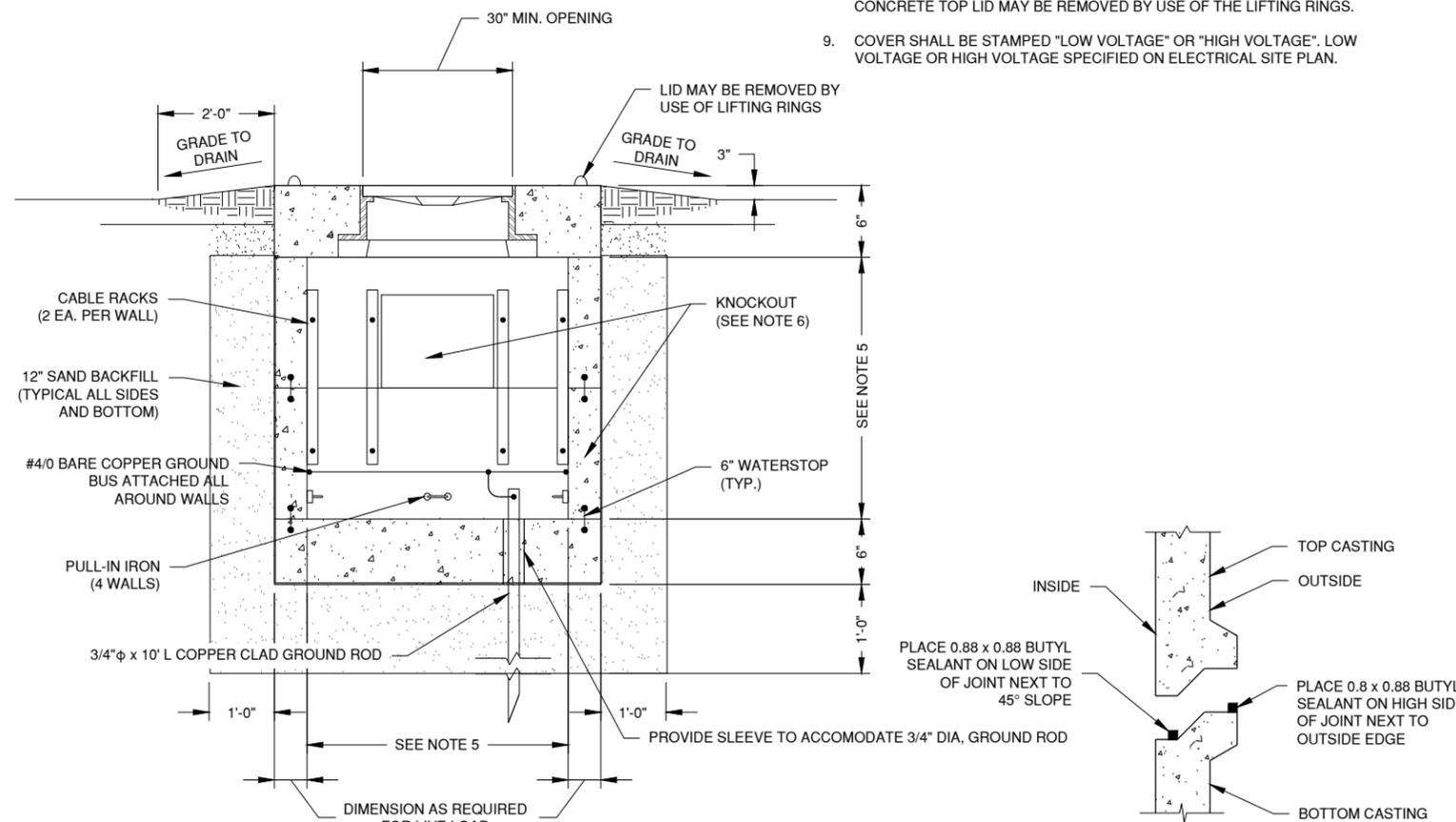
NOTES

- THE DEPTH OF THE DIRECTIONAL BORE SHALL BE NO LESS THAN 4.0' FROM THE PAVEMENT SURFACE AND SHALL NOT DISTURB EXISTING UNDERDRAINS OR NEW LIGHTS/CABLING.
- REFER TO ELECTRICAL SITE PLAN FOR CABLE AND CONDUIT INFORMATION.

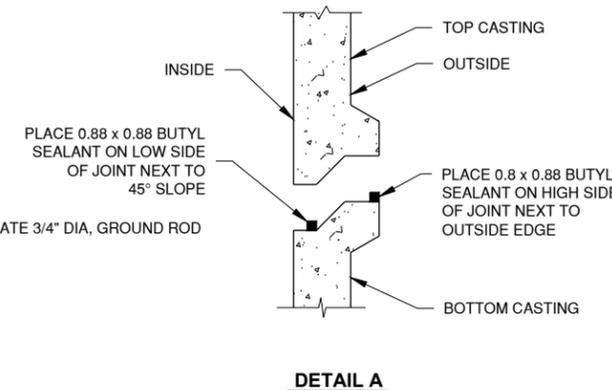


NOTES:

- WALL KNOCKOUTS SHALL BE SIZED AS REQUIRED FOR PROPOSED CONDUITS/DUCT BANK..
- FRAME AND LID SHALL BE SUITABLE FOR H-20 LOADING.
- COVER SHALL BE STAMPED "LOW VOLTAGE" OR "HIGH VOLTAGE", HINGED WITH SAFETY BAR AND BOLTED.



ELECTRICAL HANDHOLE DETAILS TYPE 2
N.T.S.





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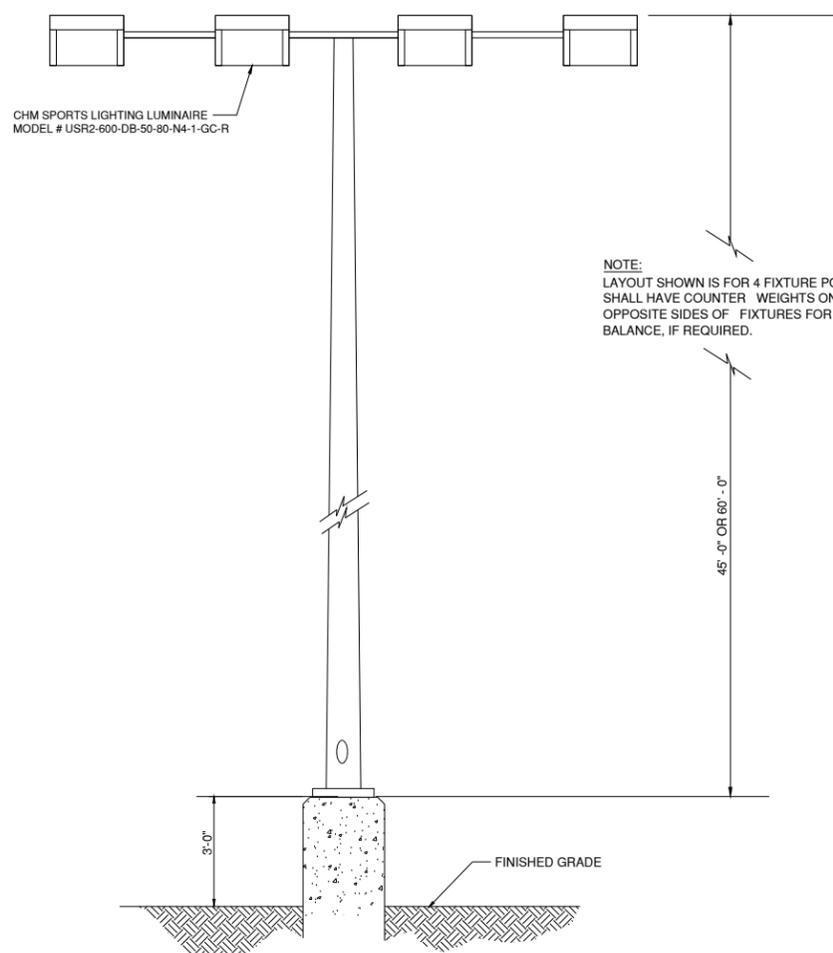


**GREATER KANKAKEE AIRPORT
KANKAKEE, ILLINOIS**

MARK	DATE	DESCRIPTION

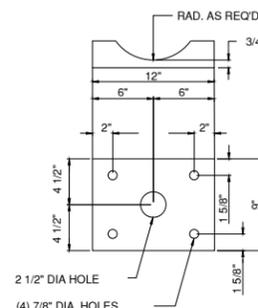
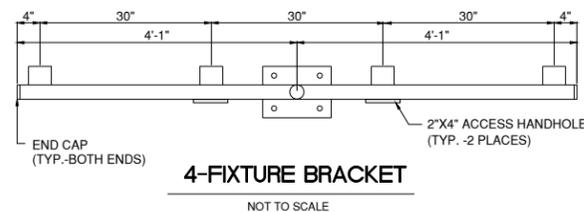
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CAD DWG FILE: ELECTRICAL DETAILS - 5.DWG
DESIGNED BY: AB
DRAWN BY: JRO
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**ELECTRICAL
DETAILS - 4**



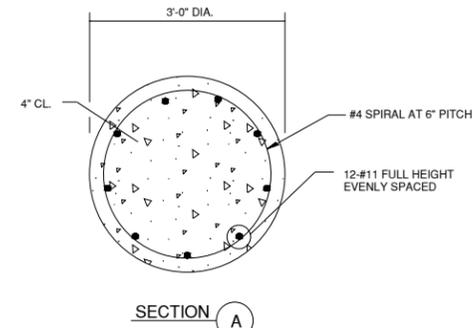
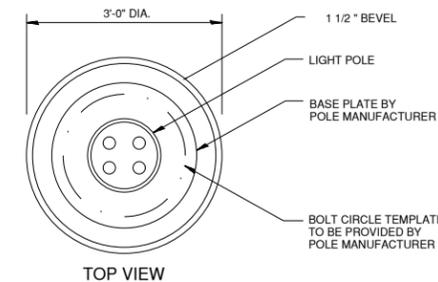
LIGHT POLE (45' AND 60') DETAIL FRONT/SIDE VIEW

NOT TO SCALE

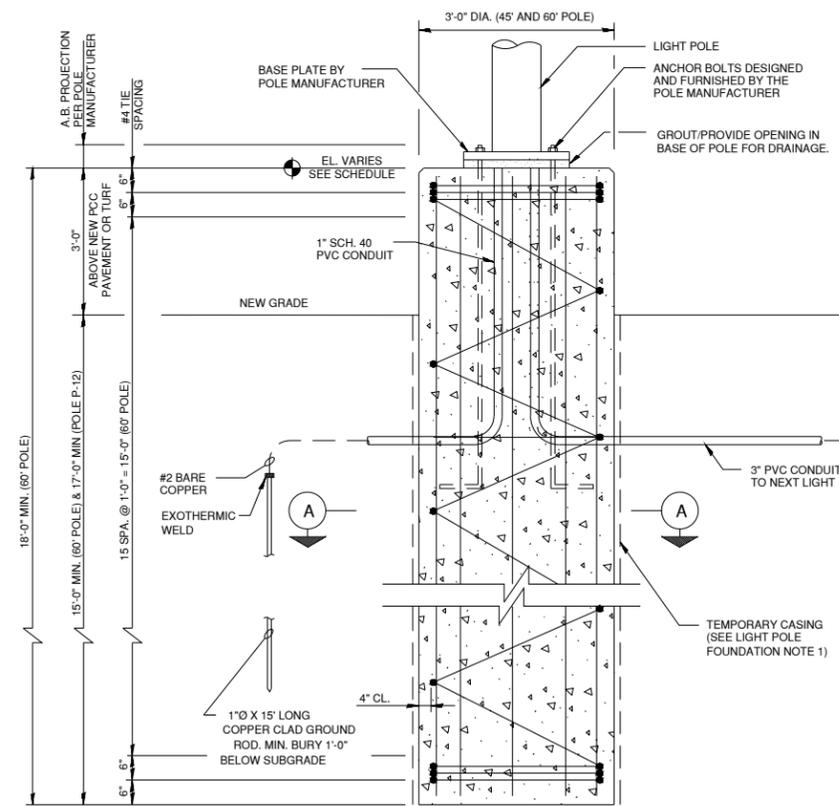


GAIN DETAIL

NOT TO SCALE



SECTION A



ELEVATION - LIGHT POLE FOUNDATION

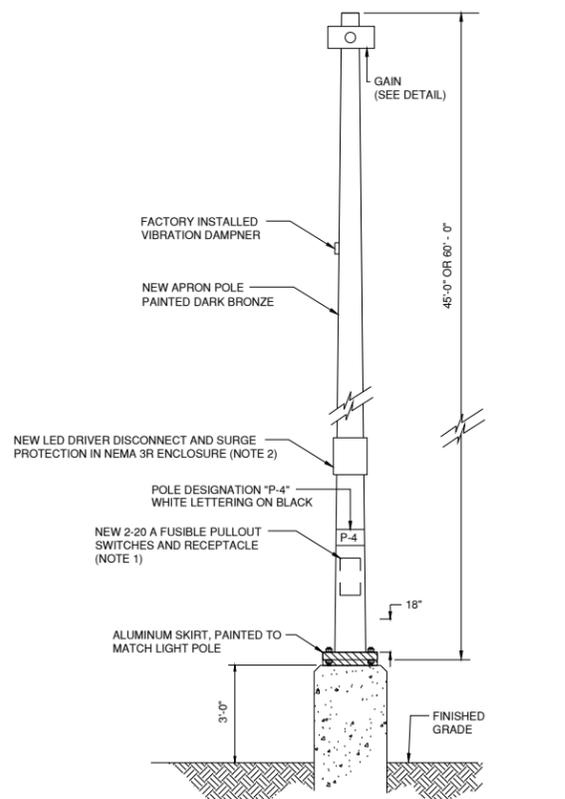
NOT TO SCALE

LIGHT POLE FOUNDATION NOTES

- FOUNDATION FOR LIGHT POLES SHALL BE BORED/DRILLED. EXISTING SITE SOILS ARE SANDS. CONSTRUCTION OF DRILLED LIGHT POLE FOUNDATIONS WILL REQUIRE THE USE OF A TEMPORARY CASING.
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,500 P.S.I. AT 14 DAYS.
- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60.
- POLE FOUNDATION SHALL BE MONOLITHIC. NO CONSTRUCTION JOINTS WILL BE PERMITTED.
- ALL MATERIALS CONTAINED WITHIN FOUNDATION AND FOR GROUNDING IS CONSIDERED INCIDENTAL TO POLE FOUNDATION

LIGHT POLE FOUNDATION DESIGN

DESIGN LOAD: AASHTO-STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 2001.
DESIGN WIND SPEED = 100 MPH

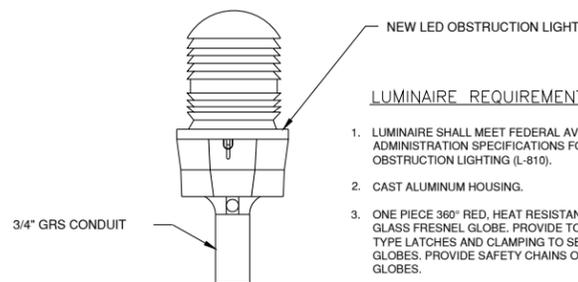


LIGHT POLE (45' AND 60') DETAIL

NOT TO SCALE

NOTE:

- THE PULLOUT SWITCHES AND RECEPTACLES SHALL BE FACTORY INSTALLED ON THE OPPOSITE SIDE OF HANDHOLE.
- FURNISH AND INSTALL LED DRIVER, DISCONNECT AND SURGE PROTECTION. CONTRACTOR SHALL COORDINATE WITH LIGHT FIXTURE AND LIGHT POLE MANUFACTURER TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.



OBSTRUCTION LIGHT FIXTURE DETAIL

NOT TO SCALE

LUMINAIRE REQUIREMENTS

- LUMINAIRE SHALL MEET FEDERAL AVIATION ADMINISTRATION SPECIFICATIONS FOR OBSTRUCTION LIGHTING (L-810).
- CAST ALUMINUM HOUSING.
- ONE PIECE 360° RED, HEAT RESISTANT GLASS FRESNEL GLOBE. PROVIDE TOGGLE TYPE LATCHES AND CLAMPING TO SECURE GLOBES. PROVIDE SAFETY CHAINS ON GLOBES.
- OBSTRUCTION LIGHT SHALL BE L.E.D. TYPE, AND OPERATOR ON 120VAC.
- PROVIDE INTERNAL PROVISIONS FOR GROUNDING.
- SEE ALSO SCHEDULE AND DETAILS SHEET.
- INSTALL OBSTRUCTION LIGHT AS RECOMMENDED BY APRON LIGHTING MANUFACTURER.



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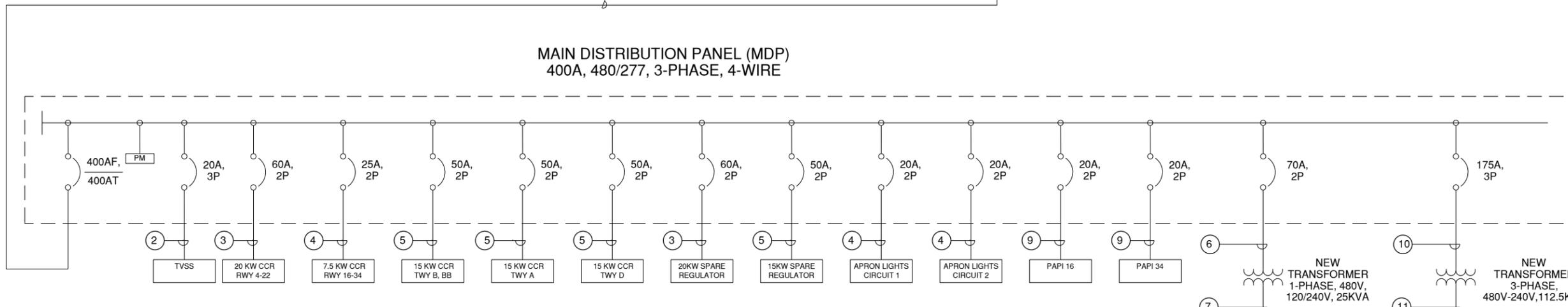
NEW PRIMARY BY COMED

UTILITY TRANSFORMER 480/277V, 3P, 4-WIRE BY COMED

400A, 480V, 3-POLE CIRCUIT BREAKER DISCONNECT (SERVICE ENTRANCE RATED)

MANUAL TRANSFER SWITCH 400A, 3-PHASE GENERATOR RECEPTACLE

MAIN DISTRIBUTION PANEL (MDP) 400A, 480/277, 3-PHASE, 4-WIRE



PANELBOARD SCHEDULE

PANEL DESIGNATION: **MDP** BOND NEUTRAL AND GROUND BAR: **NO** POLE: **42**
 LOCATION: **ELECTRICAL VAULT** NEUTRAL BUS RATING: **100%** SHORT CIRCUIT RATING: **42KA**
 MFR & TYPE: **SQUARE D NQ, OR EQUIV.** SERVICE ENTRANCE RATED: **NO** TVSS & DISCONNECT REQUIRED: **NO**

VOLTS: **277/480V** MOUNTING: **SURFACE** BUS RATING (AMPS): **400**
 PHASE: **3** ENCL RATING: **NEMA 1** BUS: **COPPER**
 WIRE: **4** MAIN CIRCUIT BREAKER: **AMP/POLE 400/3**

CKT NO.	LOAD	BREAKER SIZE	LOAD AMPS	USAGE FACTOR	PHASE AMPS (USAGE)			POLE NO.	PHASE AMPS (USAGE)			USAGE FACTOR	LOAD AMPS	BREAKER SIZE	CKT NO.	
					A	B	C		A	B	C					
1	TR-1	70A/2P	50	1	50			1	2	0			0	20A/3P	2	
3			50	1		50			3	4	0		0		4	
5							0			5	6				0	6
7	CCR RWY 4-22	60A/2P	42	0.7	29.4			7	8	130			0.7	130	175A/3P	8
9			42	0.7		29.4			9	10	130			0.7		130
11	CCR TWY B, BB	50A/2P	32	0.7			22.4	11	12			130	0.7	130	25A/2P	12
13			32	0.7	22.4			13	14	11.2			0.7	16		14
15			32	0.7		22.4			15	16		11.2		0.7		16
17	CCR TWY D	50A/2P	32	0.7			22.4	17	18			22.4	0.7	32	50A/2P	18
19			32	0.7			22.4	19	20	22.4			0.7	32		20
21	CCR SPARE	50A/2P	0	0				21	22			0		60A/2P	22	
23			0	0				23	24			0			0	24
25	LIGHT CONTACTOR	20A/2P	0.25					25	26	6.5			0.5	13	20A/2P	26
27			0.25	0				27	28		6.5		0.5	13		28
29	PAPI 16	20A/2P	0					29	30			6.5	0.5	13	20A/2P	30
31			0					31	32	6.5			0.5	13		32
33	SPARE	20A/2P						33	34			0		20A/2P	34	
35								35	36			0	0			36
37	-	-						37	38	0			-	-	-	38
39								39	40	0			-	-		40
41	-	-						41	42			0		-	-	42
42													0			
SECTION TOTAL:					101.8	101.8	44.8			176.6	147.7	158.9				
PHASE TOTAL AMPS:					278.4			249.5			203.7			TOTAL USAGE LOAD: 202653.2 VA		
PHASE TOTAL VA:					77116.8			69111.5			56424.9					

KEYED NOTES:

1. NEW 4 - 600KCMIL XHHW-2, 1 #4/0 GND. IN 1 - 4" GRS.
2. NEW 3 #10 THWN, 1 #10 GND. IN 1" CONDUIT.
3. NEW 2 #4 THWN, 1 #8 GND. IN 1" CONDUIT.
4. NEW 2 #8 THWN, 1 #10 GND. IN 1" CONDUIT.
5. NEW 2 #6 THWN, 1 #8 GND. IN 1" CONDUIT.
6. NEW 2 #4 THWN, 1 #8 GND. IN 1 1/4" CONDUIT.
7. NEW 3 #2 THWN, 1 #8 GND. IN 2" CONDUIT.
8. NEW 2-4" PVC SCH. 40 CONDUIT WITH PULL STRING.
9. NEW 3-#4 THWN, 1 #4 GND. IN 1" CONDUIT.
10. NEW 3 #3/0 THWN, 1 #1/0 GND. IN 2" CONDUIT.
11. NEW 4-350KCMIL THWN, 1 #2/0 GND. IN 3-1/2" CONDUIT.

NOTES:
 1 PROVIDE ENGRAVED NAMEPLATE READING:
 MDP
 277/480V, THREE-PHASE, 4-WIRE

MARK | DATE | DESCRIPTION

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 CAD DWG FILE: LINE DIAGRAM AND PANELBOARD.DWG
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 DRAWN BY: JRO
 CHECKED BY: AB
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SHEET TITLE
ONE-LINE DIAGRAM

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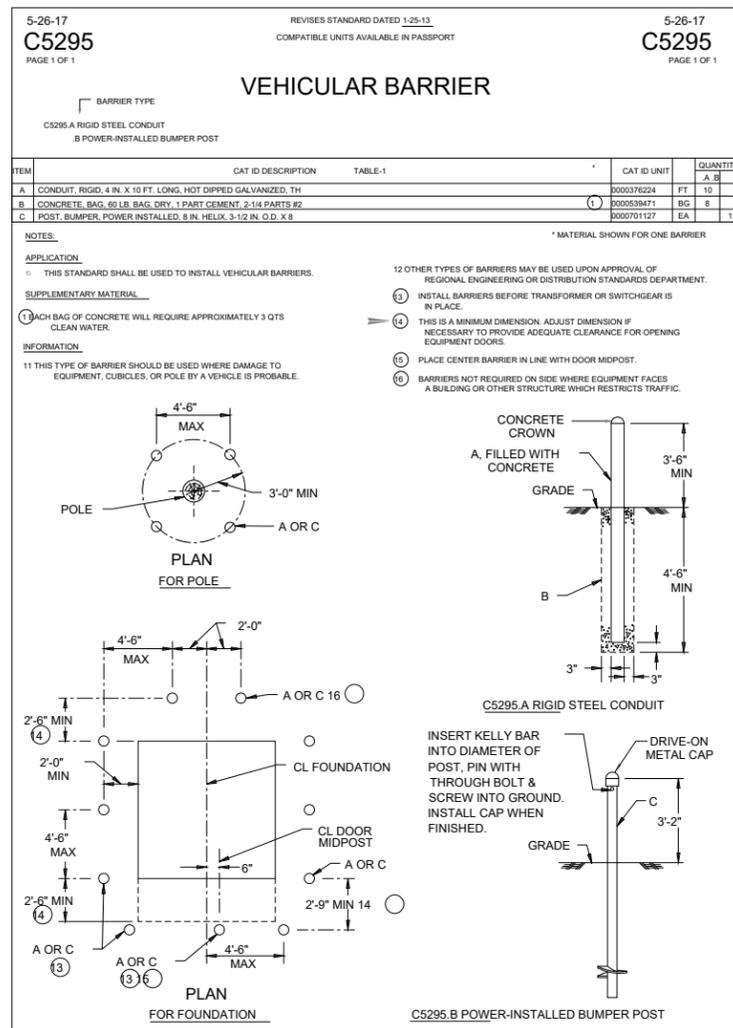


GREATER KANKAKEE AIRPORT
KANKAKEE, ILLINOIS

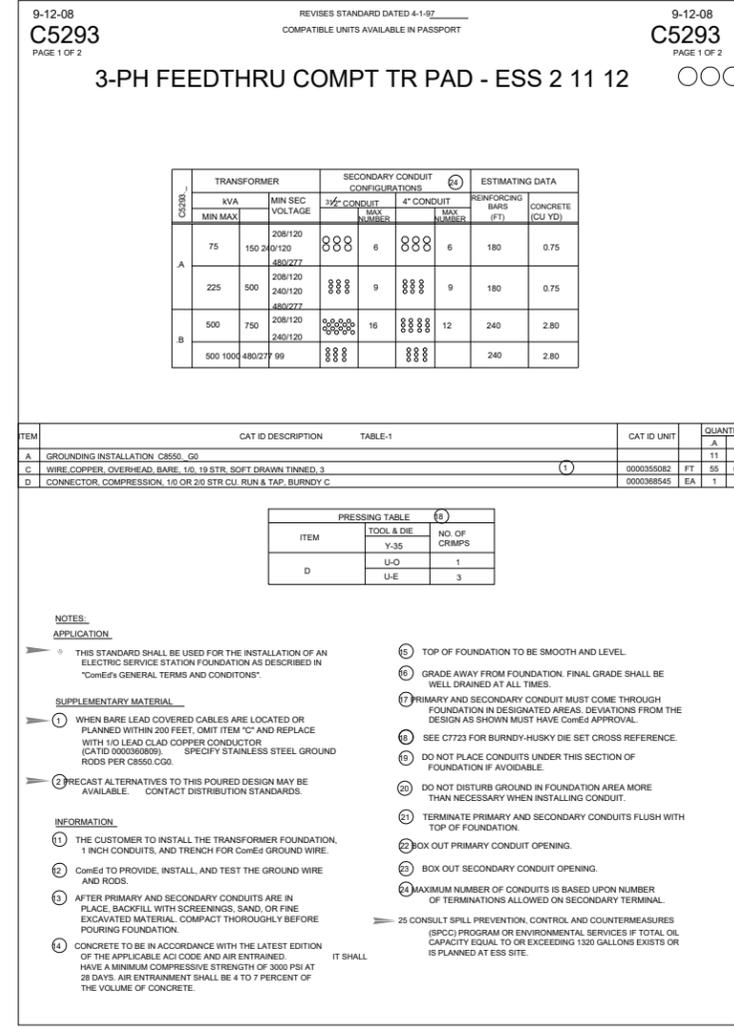
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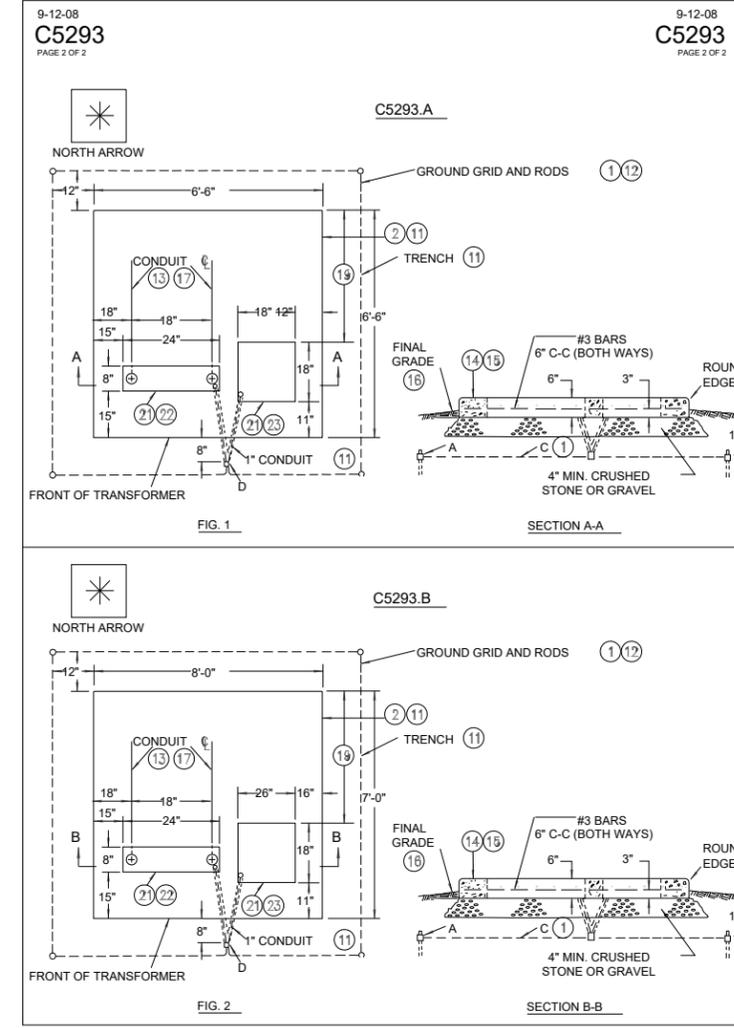
SHEET TITLE
**COMED TRANSFORMER
PAD DETAILS**



ComEd SYSTEM STANDARD



ComEd SYSTEM STANDARD



ComEd SYSTEM STANDARD