TARP HORIZONTAL CONTROL

MID–CONTINENT AIRPORT – WICHITA, KANSAS

TARP HORIZONTAL COORDINATES ARE BASED ON AN ASSUMED HORIZONTAL NETWORK UTILIZED BY MID–CONTINENT AIRPORT ENGINEERING CIRCA 1970'S

THE BASIS OF BEARING FOR THE MID–CONTINENT AIRPORT, TARP HORIZONTAL CONTROL SYSTEM, IS EXISTING MCA HCP POINT NUMBERS 16 AND 20. HCP–16 AND HCP–20 ARE 1/2" IRON PIPES SET IN 4" STEEL THIMBLES LOCATED ON THE CENTERLINE OF THE AIR CARGO SERVICE RD. THE RECORD HORIZONTAL COORDINATES OF HCP–16 WAS HELD FIXED, TOGETHER WITH THE RECORD AZIMUTH FROM HCP–16 TO HCP–20. NEW HORIZONTAL COORDINATES OF HCP–20 WERE ESTABLISHED USING A MEASURED DISTANCE OF 1460.95' AND A RECORD AZIMUTH OF 199°21'20". 2 HORIZONTAL TRAVERSES WERE PERFORMED (MIDDLE TRAVERSE & NORTH TRAVERSE). A COMPASS RULE ADJUSTMENT USING FIELD MEASURED ANGLES AND EDM DISTANCES WAS PERFORMED ON BOTH TRAVERSES YIELDING THE FOLLOWING CLOSURE COMPUTATIONS:

MIDDLE TRAVERSE: TRAVERSE LENGTH = 7,275.711 FT, HORIZONTAL ERROR = 0.087 FT, RATIO OF PRECISION = 1/ 66,953

NORTH TRAVERSE: TRAVERSE LENGTH = 8,195.883 FT, HORIZONTAL ERROR = 0.043 FT, RATIO OF PRECISION = 1/158,363

SOUTH TRAVERSE: TRAVERSE LENGTH = 2,747.241 FT, HORIZONTAL ERROR = 0.129 FT, RATIO OF PRECISION = 1/21,380

POINT #	NORTHING	EASTING	DESCRIPTION
CP–221	11648.1280	9749.3050	1/2" IRON PIPE MCA HCP–21 – FOUND PER MCA AIRPORT TIES (TERMINAL LOOP PI STA. 115+61.82) 6.92' W. TO CENTER OF MONITORING WELL LID 9.32' S. TO BACK OF CURB OF CONNECTING ROAD – TERMINAL LOOP TO AIR CARGO RD.
CP–233	11591.6150	9796.1850	1/2" IRON PIPE MCA HCP–33 – FOUND PER MCA AIRPORT TIES (PARKING LOT BASELINE STA 9+15) 13.40' NE. TO CENTER OF LID ON CURB INLET 20.75 NW. TO SE. BOLT ON PARKING LOT LIGHT BASE #89
CP–240	11529.8370	9608.3990	3/4" IRON PIPE WITH PEC CAP – SET 0.65' E. TO BACK OF CURB AIR CARGO RD. 7.0' NW. TO SOUTHERLY LINE BUILDING 2203 AIR CARGO RD. EXTEND. 14.38' W. TO NE. CORNER PARKING LOT BACK OF CURB
CP–242	10973.6310	9990.2650	3/4" IRON PIPE WITH PEC CAP – SET 157.18' W. OF W. END EXISTING TERMINAL BUILDING 25.40' E. TO FIRE HYDRANT 1.95' S. TO BACK OF CURB
CP–252	10662.2963	10171.7553	6" CHISELED "+" ON CONCRETE PAVEMENT – SET 13.22' NE. TO 3" CHISELED "+" 58.90' SSE. TO W. END CENTERLINE OF 14"x18' SLOTTED DRAIN 112.40' SSE. TO CENTER OF THE S. END OF THE E. RETAINING WALL OF BASEMENT DRIVE ENTRANCE
CP–253	10745.9462	11028.9558	6" CHISELED "+" ON CONCRETE PAVEMENT 200'+/– E. OF GATE #2 300'+/– S. OF CONTROL TOWER
CP–255	10801.5075	9450.9384	60d NAIL IN CONCRETE JOINT – SET 300'+/– S. OF U.S. CUSTOMS OFFICE IN SE. CORNER OF ASPHALT AIR CRAFT PARKING AREA
CP–261	11241.8937	9136.9489	1/2" BAR – SET AT NW. CORNER OF AIR CRAFT PARKING AREA 310' SW. OF WESTERLY CORNER OF AIR CARGO BUILDING 5' SW. OF W. CORNER OF CURB INLET
CP–263	10132.6918	9609.7302	CENTER PUNCH MARK ON BRASS DISC ON THE W. END OF 23'x7' CONCRETE STORM DRAIN BOX 447' W. OF SW. CORNER OF THE W. CONCOURSE 100' N. OF N. EDGE OF TAXIWAY "C" 71' SE. OF S. EDGE TAXIWAY "C–1"
CP–264	10579.0484	9789.6305	1/2" BAR – SET 264' S. OF SW. CORNER OF LANDSCAPE BUILDING 361' W. OF NW. CORNER OF W. CONCOURSE 5' W. OF NW. CORNER OF A 5'x5' ELECTRICAL VAULT 22.7' W. OF W. EDGE OF CONCRETE AIRCRAFT RAMP
CP–270	12125.5340 (NOT SHOWN)	7816.5650	ICT–G NGS SECONDARY AIRPORT CONTROL STATION PID AJ8087 FIRST ORDER HORIZONTAL ORDER NAD 83 LATITUDE 37° 39' 22.64036"N LONGITUDE 097° 26' 16.61042"W SPC KS S NORTH: 1674427.39 EAST: 1619778.04 STATION DESCRIPTION: DESCRIBED BY MOUNTAIN SURVEYING AND MAPPING INC 2001 (KCH) THE STATION IS LOCATED ABOUT (5.5 MI) SOUTHWEST OF WICHITA, KANSAS, AT THE MID–CONTINENT AIRPORT. IT IS IN THE NORTHWEST AREA ON THE AIRPORT, NORTHEAST OF RUNWAY 14–32, SOUTHWEST OF TAXIWAY C AND NORTHWEST OF RUNWAY 1L–19R. THIS IS A CONTROLLED AIRPORT. AN ESCORT IS REQUIRED FOR ACCESS TO THIS STATION. PERMISSION TO USE THIS STATION MUST BE OBTAINED FROM THE DIRECTOR OF AIRPORT ENGINEERING AND PLANNING. CONTACT MR. JOHN OSWALD 316–946–4715. OWNERSHIP–WICHITA AIRPORT AUTHORITY. TO REACH THE STATION FROM THE INTERCHANGE OF INTERSTATE HIGHWAY 235 (EXIT 5) AND STATE HIGHWAY 42 IN WICHITA, KANSAS GO SOUTHWEST ON STATE HIGHWAY 42 (SOUTHWEST BOULEVARD) FOR (2.1 MI) TO A DRIVE WAY ON THE RIGHT, TO THE AIRPORT MAINTENANCE AREA. TURN RIGHT, NORTH, (0.1) MI TO THE MAINTENANCE YARD. KEEP RIGHT, GO NORTHEAST ON THE SOUTH YARD MAINTENANCE ROAD FOR (0.3 MI) TO THE FIRE PIT ROAD. TURN LEFT, WEST, GO WEST AND NORTHWESTERLY ON THE FIRE PIT ROAD FOR (0.9 MI) TO TAXIWAY D. TURN RIGHT, NORTHEAST ON TAXIWAY D FOR (0.6 MI) TO RUNWAY 32–14, CONTINUE NORTHEAST ON TAXIWAY D FOR (0.5 MI) TO TAXIWAY C. TURN LEFT, NORTHWEST, ON TAXIWAY C FOR (0.1 MI) TO RUNWAY 1L–19R. CONTINUE NORTHWEST ON TAXIWAY C FOR (295 FT) TO THE STATION ON YOUR LEFT. THE MARK IS A NGS BRASS HORIZONTAL CONTROL DISK SET IN THE TOP CENTER OF A CONCRETE POST FLUSH WITH THE GROUND. IT IS (160.8 FT) NORTHEAST OF THE CENTER OF THE NORTHEAST PAPI BASE ALONG RUNWAY 14–32, (160.8 FT) NORTH–NORTHEAST OF A CHISELED SQUARE IN THE NORTHERN MOST CORNER OF A CONCRETE PAD ADJACENT TO RUNWAY 14–32 AND (91.9 FT) NORTHWEST OF A SMALL WINDSOCK. THIS STATION IS DESIGNATED AS A SECONDARY AIRPORT CONTROL STATION (SACS).
CP–271	6994.7230 (NOT SHOWN)	10135.3640	ICT–J NGS PRIMARY AIRPORT CONTROL STATION PID DE8254 B HORIZONTAL ORDER NAD 83 LATITUDE 37° 38' 31.66702"N LONGITUDE 097° 25' 48.49046"W SPC KS S NORTH: 1669297.91 EAST: 1622098.26 STATION DESCRIPTION: DESCRIBED BY NATIONAL GEODETIC SURVEY 2002 (DJA) THE STATION IS LOCATED ABOUT 8.9 KM (5.5 MI) SOUTHWEST OF WICHITA, KANSAS, AT THE MID–CONTINENT AIRPORT. IT IS JUST SOUTH OF RUNWAY END 32 AND WEST OF A PERIMETER (MAINTENANCE) ROAD. THIS IS A CONTROLLED AIRPORT. PERMISSION TO USE THIS STATION MUST BE OBTAINED FROM THE DIRECTOR OF AIRPORT ENGINEERING AND PLANNING. CONTACT MR. JOHN OSWALD 316–946–4715. OWNERSHIP–WICHITA AIRPORT AUTHORITY. TO REACH THE STATION FROM THE INTERCHANGE OF INTERSTATE HIGHWAY 235(EXIT 5) AND STATE HIGHWAY 42 (SOUTHWEST BOULEVARD) GO FOR (2.1 MI) TO A DRIVEWAY ON THE RIGHT, TO THE AIRPORT MAINTENANCE AREA. TURN RIGHT, NORTH, (0.1) MI TO THE MAINTENANCE YARD. KEEP RIGHT, GO NORTHEAST ON THE SOUTH YARD MAINTENANCE ROAD FOR (0.7 MI) TO TAXIWAY E1. TURN LEFT, WEST, AND CROSS RWY END 32 FOR (0.12 MI) TO THE STATION ON–LINE WITH THE EDGE OF RUNWAY END 32. THE STATION IS A PUNCH HOLE, TOP OF CENTER ON A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT A DEPTH OF (55.7 FT), ENCASED IN A (3.0 FT) LONG FINNED GREASED SLEEVE, ENCLOSED IN A PVC PIPE WITH LOGO LID, SURROUNDED BY A CONCRETE COLLAR FLUSH WITH THE GROUND. THE STATION IS (239.5 FT) SOUTHWEST OF THE SOUTHWEST CORNER OF RUNWAY END 32, (169.3 FT) WEST OF THE SOUTHWEST REIL 32, (32.8 FT) SOUTHWEST OF A TRACK ROAD THAT IS SOUTH OF RUNWAY END 32 AND RUNS PARALLEL WITH RUNWAY 32. THIS STATION IS DESIGNATED AS A PRIMARY AIRPORT CONTROL STATION (PACS).

TRANSFORMATION PROCEDURES FOR CONVERTING MCA TARP COORDINATES TO GEOGRAPHIC NAD83 LATITUDE AND LONGITUDE VALUES:
THE DATA SET OF TARP COORDINATES TO BE TRANSFORMED SHOULD INCLUDE THE TARP VALUES FOR CP–270 AND CP–271 AND THE KANSAS STATE PLANE VALUES SOUTH ZONE (1502) FOR ICT–G AND ICT–J IN THE DATA SET. THE TARP COORDINATES CAN THEN BE TRANSFORMED TO KANSAS STATE PLANE COORDINATES BY ROTATING THE TARP DATA SET COUNTERCLOCKWISE BY (– 00°01'07.54") AND SCALING DOWN THE DATA SET BY A COMBINED ADJUSTMENT FACTOR OF 0.999887994 TO REFLECT KANSAS STATE PLANE GRID COORDINATES, U.S. SURVEY FOOT DEFINITION. THE RESULTANT KANSAS STATE PLANE COORDINATES CAN THEN BE CONVERTED TO GEOGRAPHIC NAD83 LATITUDE AND LONGITUDE VALUES BY USING THE NGS TRANSFORMATION PROGRAM "CORPSCON."

TARP BENCHMARKS

LAND–SIDE AREA MID–CONTINENT AIRPORT – WICHITA, KANSAS

TARP VERTICAL DATUM IS BASED ON NGVD–29 (NATIONAL GEODETIC VERTICAL DATUM OF 1929)

DATUM BENCHMARK: ELEV. 1324.835 BM–19
NGS BENCHMARK
DESIGNATION: ARP RESET 1984
PID: HF1496
BRASS DISC SET IN THE NORTHEAST CORNER OF CURB INLET, NORTH OF THE WEST END OF THE TERMINAL BUILDING, IN A GRASSY AREA BETWEEN THE SHORT TERM PARKING LOT AND THE TAXI–CAB DRIVE, ABOUT MIDWAY THROUGH A CURVE IN THE TAXI–CAB DRIVE, 251.15 FT. NORTHEAST FROM THE NORTHEAST CORNER OF THE AIRLINE MAINTENANCE BUILDING, 147.41 FT NORTHWEST OF THE NORTHWEST CORNER OF THE OLDER PART OF THE TERMINAL BUILDING, 15.49 FT. NORTHEAST FROM THE CENTERLINE OF THE TAXI–CAB DRIVE.

BM #	ELEVATION	DESCRIPTION
BM–100:	1325.18	CHISELED SQUARE ON NE. CORNER ELECTRICAL TRANSFORMER CONCRETE PAD, ON E. SIDE OF BUILDING # 2203 AIR CARGO RD.
BM–117:	1326.01	CHISELED SQUARE ON TOP OF CURB LOCATED 30' SW. OF W. SIDE OF SECURITY GATE "C".
BM–118	1322.33	CHISELED SQUARE ON NE. CORNER OF ELECTRICAL VAULT LOCATED 120' SW. OF SE. CORNER OF TANK STORAGE AREA.
BM–119	1322.02	CHISELED SQUARE ON EDGE OF CONCRETE JOINT INTERSECTION IN SE. CORNER OF AIR CRAFT PARKING AREA. 300'± S. OF U.S. CUSTOMS BUILDING.
BM–120	1322.10	CHISELED SQUARE ON TOP OF CURB INLET CENTER NE. FACE. 310' SW. OF WESTERLY CORNER OF AIR CARGO BUILDING ON THE SW. SIDE OF CONCRETE ROADWAY.
BM–122	1317.49	BRASS DISC ON W. END OF 23' x 7' CONCRETE STORM WATER INLET LOCATED IN GRASS AREA, N. OF TAXIWAY "C", SE. OF TAXIWAY C–1, W. OF AIRCRAFT RAMP AND 447' W. OF SW. CORNER OF THE W. CONCOURSE.

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WICHITA MID-CONTINENT AIRPORT
Air Capital Terminal 3
PACKAGE # 3
LANDSIDE UTILITIES PHASE I &
MID-CONTINENT DRIVE RELOCATION

RECORD DRAWINGS
TO THE BEST OF OUR KNOWLEDGE AND BELIEF, IN ACCORDANCE WITH INFORMATION PROVIDED BY THE CONTRACTOR, THE RECORD DRAWINGS ACCURATELY REFLECT THE PROJECT AS CONSTRUCTED.
DATE: FEBRUARY, 2011

ISSUE: BID SET

DATE: JUNE 8, 2009
HNTB PROJECT NO.: 34912
CLIENT PROJECT NO.: 06481
DRAWN BY:
CHECKED BY:
APPROVED BY:

REVISION	DATE	DESCRIPTION
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CITY OF WICHITA PROJECT NO. 1510 PPW (607853)

PROJECT HORIZONTAL AND VERTICAL CONTROL

CU102

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