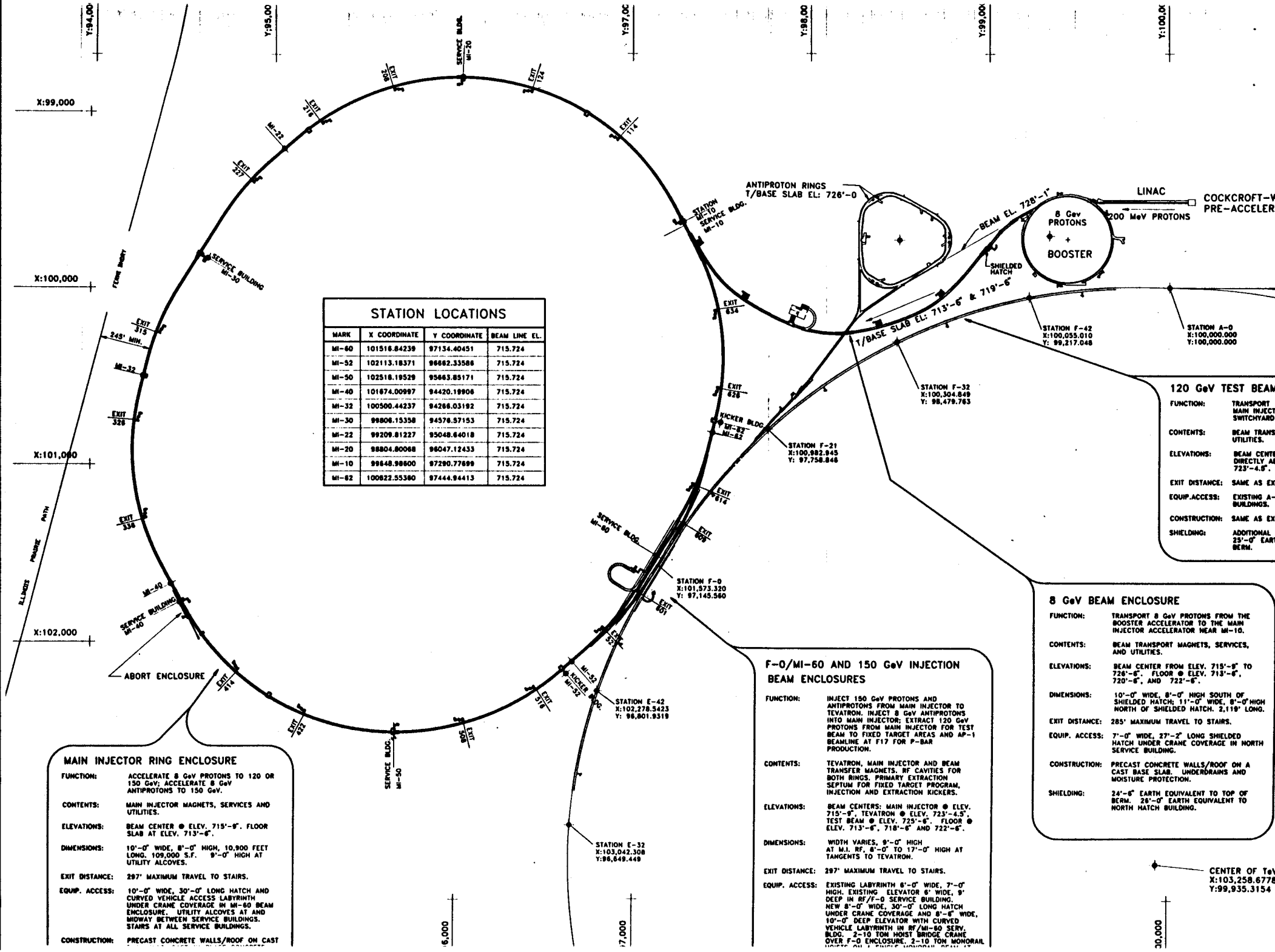

STATION LOCATIONS

MARK	X COORDINATE	Y COORDINATE	BEAM LINE EL.
MI-60	101516.84239	97134.40451	715.724
MI-52	102113.18371	96662.33586	715.724
MI-50	102518.19529	95663.85171	715.724
MI-40	101674.00997	94420.19906	715.724
MI-32	100500.44237	94266.03192	715.724
MI-30	99806.15358	94576.57153	715.724
MI-22	99209.81227	95048.64018	715.724
MI-20	98804.80068	96047.12433	715.724
MI-10	99648.98600	97290.77699	715.724
MI-62	100622.55360	97444.94413	715.724

MAIN INJECTOR RING ENCLOSURE

FUNCTION: ACCELERATE 8 GeV PROTONS TO 120 OR 150 GeV; ACCELERATE 8 GeV ANTIPROTONS TO 150 GeV.

CONTENTS: MAIN INJECTOR MAGNETS, SERVICES AND UTILITIES.

ELEVATIONS: BEAM CENTER ● ELEV. 715'-9". FLOOR SLAB AT ELEV. 713'-6".

DIMENSIONS: 10'-0" WIDE, 8'-0" HIGH, 10,900 FEET LONG. 109,000 S.F. 9'-0" HIGH AT UTILITY ALCOVES.

EXIT DISTANCE: 297' MAXIMUM TRAVEL TO STAIRS.

EQUIP. ACCESS: 10'-0" WIDE, 30'-0" LONG HATCH AND CURVED VEHICLE ACCESS LABYRINTH UNDER CRANE COVERAGE IN MI-60 BEAM ENCLOSURE. UTILITY ALCOVES AT AND MIDWAY BETWEEN SERVICE BUILDINGS. STAIRS AT ALL SERVICE BUILDINGS.

CONSTRUCTION: PRECAST CONCRETE WALLS/ROOF ON CAST

F-0/MI-60 AND 150 GeV INJECTION BEAM ENCLOSURES

FUNCTION: INJECT 150 GeV PROTONS AND ANTIPROTONS FROM MAIN INJECTOR TO TEVATRON. INJECT 8 GeV ANTIPROTONS INTO MAIN INJECTOR; EXTRACT 120 GeV PROTONS FROM MAIN INJECTOR FOR TEST BEAM TO FIXED TARGET AREAS AND AP-1 BEAMLINE AT F17 FOR P-BAR PRODUCTION.

CONTENTS: TEVATRON, MAIN INJECTOR AND BEAM TRANSFER MAGNETS. RF CAVITIES FOR BOTH RINGS. PRIMARY EXTRACTION SEPTUM FOR FIXED TARGET PROGRAM, INJECTION AND EXTRACTION KICKERS.

ELEVATIONS: BEAM CENTERS: MAIN INJECTOR ● ELEV. 715'-9", TEVATRON ● ELEV. 723'-4.5", TEST BEAM ● ELEV. 725'-6", FLOOR ● ELEV. 713'-6", 718'-6" AND 722'-6".

DIMENSIONS: WIDTH VARIES, 9'-0" HIGH AT M.I. RF, 8'-0" TO 17'-0" HIGH AT TANGENTS TO TEVATRON.

EXIT DISTANCE: 297' MAXIMUM TRAVEL TO STAIRS.

EQUIP. ACCESS: EXISTING LABYRINTH 6'-0" WIDE, 7'-0" HIGH. EXISTING ELEVATOR 6' WIDE, 9' DEEP IN RF/F-0 SERVICE BUILDING. NEW 8'-0" WIDE, 30'-0" LONG HATCH UNDER CRANE COVERAGE AND 8'-6" WIDE, 10'-0" DEEP ELEVATOR WITH CURVED VEHICLE LABYRINTH IN RF/MI-60 SERV. BLDG. 2-10 TON HOIST BRIDGE CRANE OVER F-0 ENCLOSURE. 2-10 TON MONORAIL

8 GeV BEAM ENCLOSURE

FUNCTION: TRANSPORT 8 GeV PROTONS FROM THE BOOSTER ACCELERATOR TO THE MAIN INJECTOR ACCELERATOR NEAR MI-10.

CONTENTS: BEAM TRANSPORT MAGNETS, SERVICES, AND UTILITIES.

ELEVATIONS: BEAM CENTER FROM ELEV. 715'-9" TO 726'-6". FLOOR ● ELEV. 713'-6", 720'-6", AND 722'-6".

DIMENSIONS: 10'-0" WIDE, 8'-0" HIGH SOUTH OF SHIELDED HATCH; 11'-0" WIDE, 8'-0" HIGH NORTH OF SHIELDED HATCH. 2,119' LONG.

EXIT DISTANCE: 285' MAXIMUM TRAVEL TO STAIRS.

EQUIP. ACCESS: 7'-0" WIDE, 27'-2" LONG SHIELDED HATCH UNDER CRANE COVERAGE IN NORTH SERVICE BUILDING.

CONSTRUCTION: PRECAST CONCRETE WALLS/ROOF ON A CAST BASE SLAB. UNDERDRAINS AND MOISTURE PROTECTION.

SHIELDING: 24'-6" EARTH EQUIVALENT TO TOP OF BERM. 26'-0" EARTH EQUIVALENT TO NORTH HATCH BUILDING.

120 GeV TEST BEAM

FUNCTION: TRANSPORT MAIN INJECT SWITCHYARD

CONTENTS: BEAM TRANS UTILITIES.

ELEVATIONS: BEAM CENTE DIRECTLY A 723'-4.5".

EXIT DISTANCE: SAME AS EX

EQUIP.ACCESS: EXISTING A- BUILDINGS.

CONSTRUCTION: SAME AS EX

SHIELDING: ADDITIONAL 25'-0" EAR BERM.