ADMINISTRATION BUILDING SIDEWALK PROJECT

AT

MICHIGAN TECHNOLOGICAL UNIVERSITY

HOUGHTON, MICHIGAN

P# 00-15-04

ISSUED FOR BIDDING APRIL 27, 2017

MICHIGAN TECHNOLOGICAL UNIVERSITY CAMPUS LOCATION MAP
NOTES:

DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION, RECONSTRUCTION, OR ALTERATION OF STREETS, CURBS, OR SIDEWALKS IN THE PUBLIC RIGHT OF WAY.

SIDEWALK RAPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

SIDEWALK RAMP SHALL BE THAT OBTAINED BY A COARSE BROWNING, TRAVEL TO THE RUNNING SLOPE.

SIDEWALK SHALL BE RAMPS WHERE THE SCREW DRIVE CURBS IS EXTENDED ACROSS THE WALK.

SIDEWALK RAMP SHALL BE TO THE KEEP A UNIFORM GRADE ON THE RAMP, WHERE CONDITIONS PERMIT, IT IS DESIRABLE THAT THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.

DETECTABLE WARNING SURFACE COVERAGE IS 24" MINIMUM IN THE DIRECTION OF RAMP/PATH TRAVEL AND THE FULL WIDTH OF THE RAMP/PATH (OPENING EXCLUDING CURB) OR FLAILED CURB TRANSITION AREA. A BORDER OFFSET NOT GREATER THAN 2" MEASURED ALONG THE EDGES OF THE DETECTABLE WARNING IS ALLOWABLE. FOR RADIAL CURB THE OFFSET IS MEASURED FROM THE EDGES OF THE RADIUS.
PROPOSED LAYOUT SCHEMATIC FOR TYPE C MDOT RAMP

1. Proposed sidewalk 5' - 0" wide

Existing asphalt sidewalk/walkway to be removed/replaced with concrete sidewalk from this point to US-41.

Concrete sidewalk to be pitched uniformly from ramp area to existing asphalt.

Transition from asphalt to concrete to be at same elevation.

Proposed sidewalk shall have a 9% slope (1' per foot) rise to bring sidewalk elevation back to the existing ground elevation (starting at the top of the ramp) - (typical both sides of 5' sidewalk)

Proposed detectable warning surface 24" across x 6'-0" long (see notes)

Proposed sidewalk 5'-0" wide

Landing (turning space) slope is a max. 2% in direction of travel.

All concrete for this project shall have a minimum 28-day compressive strength of 4000 psi. All concrete shall be air entrained.

All welded wire fabric (W.W.F.) shall be 6x6 10/10 in accordance with ASTM A185.

All base material under sidewalks shall be most class II granular fill compacted 95% maximum density with a minimum thickness of six (6) inches unless specified otherwise on the construction plans.

2. Typical Sidewalk Section

All proposed sidewalks 5'-0" wide except for section connecting to asphalt walk to be 6'-0" wide (see plan view SHT. C102)

2% maximum slope

6" thick concrete sidewalk

Concrete W.W.F. (mesh)

Compacted 6" sand base
1. **PROPOSED LAYOUT FOR TYPE R MDOT RAMP**

   **NOT TO SCALE**

   MAX. LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. MIN. DIMENSIONS:
   - 5' x 5' (TYPICAL)

   **SECTION A-A THRU TYPE R MDOT RAMP**

   **NOT TO SCALE**

2. **PROPOSED LAYOUT FOR TYPE R MDOT RAMP**

   **NEEDED ON BOTH SIDES OF COLLEGE AVE**

   **NOT TO SCALE**

   **NOTES:**

   DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION, RECONSTRUCTION, OR ALTERATION OF STREETS, CURBS, OR SIDEWALKS IN THE PUBLIC RIGHT OF WAY.

   SIDEWALK RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

   SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE RUNNING SLOPE.

   SIDEWALK SHALL BE RAMPS WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS THE WALK.

   CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP. WHERE CONDITIONS PERMIT, IT IS DESIRABLE THAT THE RAMP BE IN ONE ONLY DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.

   WHEN 5’ MINIMUM MOTHS ARE NOT FEASIBLE, RAMP MOTHS MAY BE REDUCED TO NOT LESS THAN 4’ AND LANDINGS TO NOT LESS THAN 4’ x 4’.


   FOR NEW ROADWAY CONSTRUCTION, THE RAMP CROSS SLOPE MAY NOT EXCEED 2.0%. FOR ALTERATIONS TO EXISTING ROADS, THE CROSS SLOPE MAY BE TRANSFORMED TO MEET AN EXISTING ROADWAY Grade. THE CROSS SLOPE TRANSITION SHALL BE APPLIED UNIFORMLY OVER THE FULL LENGTH OF THE RAMP.

   THE MAXIMUM RUNNING SLOPE OF 8.3% IS RELATIVE TO A FLAT (0%) REFERENCE. HOWEVER, IT SHALL NOT REQUIRE ANY RAMP OR SERIES OF RAMPS TO EXCEED 15 FEET IN LENGTH.

   TRANSITION THE GUTTER PAN CROSS SECTION SUCH THAT THE COUNTER SLOPE IN THE DIRECTION OF RAMP TRAVEL IS NOT GREATER THAN 0.3%. MAINTAIN THE NORMAL GUTTER PAN CROSS SECTION ACROSS DRAINAGE STRUCTURES.

   THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT CONCRETE.

   DETECTABLE WARNING PLATES MUST BE INSTALLED USING FABRICATED OR FIELD CUT UNITS CAST AND/OR ANCHORED IN THE PAVEMENT TO RESIST SHIFTING OR HEAVING. ALL PLATES MUST MEET COMPLIANCE WITH MDOT SPECIFICATIONS AS PER MDOT STANDARD DETAIL 9-28-J SHEET 3 OF 7.
CONTRACTOR SHALL MODIFY / CONNECT EXISTING SIDEWALK TO BACKSIDE OF PROPOSED MDOT TYPE P RAMP. EXISTING SIDEWALK COMING FROM RUBY AVE. SHALL COMPLY WITH ALL NOTES ON SHEETS C104 & C105. SEE SKETCH BELOW FOR APPROXIMATE DIMENSIONS / LAYOUT. CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS / DIMENSIONS

1. PROPOSED LAYOUT FOR TYPE P MDOT RAMP
   NOT TO SCALE
   (ALTERNATE "A" WORK)

2. PROPOSED CONCRETE REPLACEMENT PLAN
   NOT TO SCALE