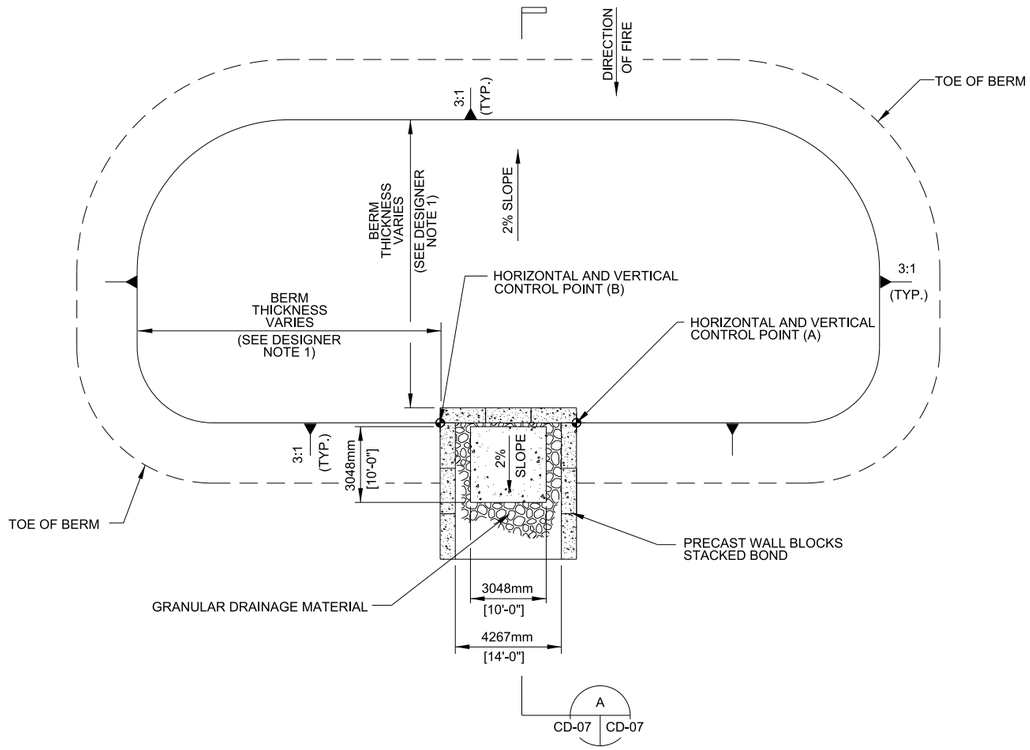
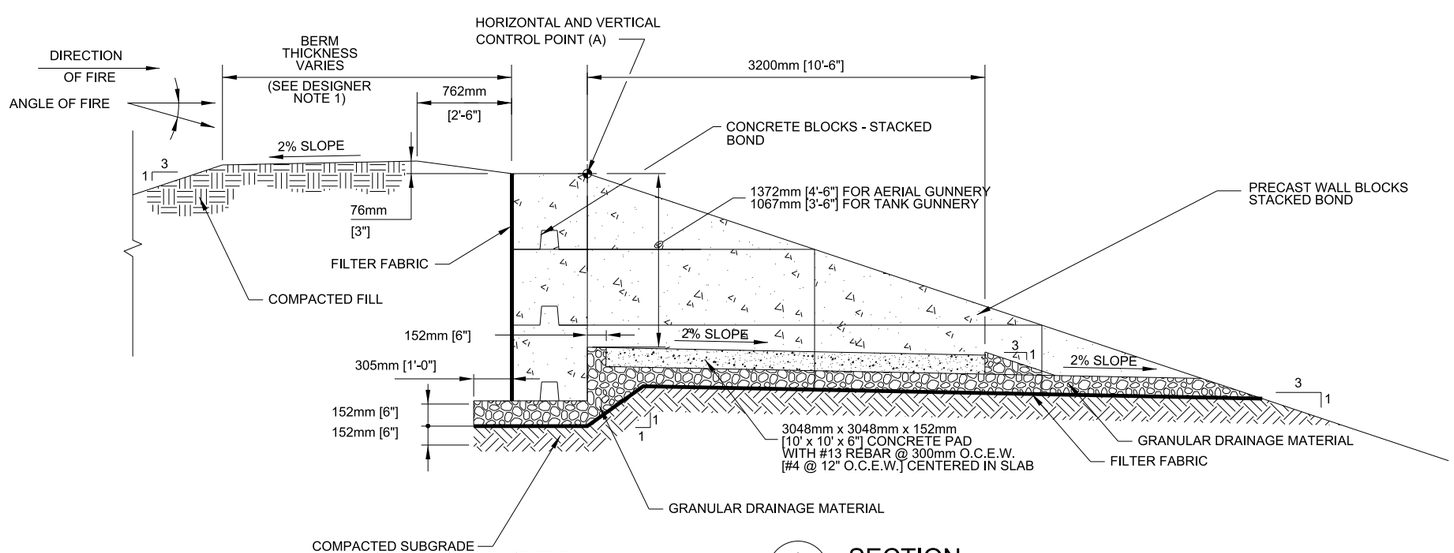


PLAN (FRONTAL)

SCALE: 1" = 10'



SECTION

SCALE: 1" = 2'

STATIONARY ARMOR TARGET - FRONTAL

GENERAL NOTES:

1. CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 28 MPa (4000PSI) IN 28 DAYS.
2. ALL REINFORCING STEEL SHALL BE PER ASTM A615, GRADE 60.
3. IF RETAINING WALLS ARE CONSTRUCTED OF TREATED TIMBERS OR CONCRETE BLOCKS FILTER FABRIC SHALL BE INSTALLED BEHIND THE WALLS. FABRIC SHALL EXTEND THE FULL HEIGHT OF THE WALL.
4. AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE REVEGETATED OR RESURFACED CONSISTENT WITH THE NATURAL SURROUNDINGS. GROUND COVER SHALL NOT REDUCE TARGET VISIBILITY.
5. HORIZONTAL AND VERTICAL CONTROL POINT (A) IS LOCATED ON THE LEFT SIDE OF TARGET AS VIEWED FROM FIRING POINT.
6. ALL DIMENSIONS ARE INDICATED AS FOLOWS: METRIC UNITS [ENGLISH] FOR INSTANCE, 1372mm [4'-6"].
7. PROVIDE 13mm [1#2"] CHAMFER ON ALL EXPOSED CONCRETE SURFACES.
8. LABEL EACH EMPLACEMENT COORDINATE. COORDINATE WITH RANGE CONTROL FOR NUMBERING SCHEME.

NOTES TO DESIGNER:

1. REFER TO THE BERM THICKNESS FIGURES LOCATED IN THE DESIGN MANUAL TO DETERMINE REQUIRED BERM THICKNESS.
2. ALL RETAINING WALLS MUST BE DESIGNED USING SITE SPECIFIC GEOTECHNICAL DESIGN PARAMETERS OBTAINED FROM A SUBSURFACE INVESTIGATION. RETAINING WALLS MAY BE CONSTRUCTED OF TREATED TIMBERS, CAST-IN-PLACE CONCRETE OR PRECAST CONCRETE. THE WALL SHALL BE DESIGNED SUCH THAT THE TOP 305mm [12"] (MIN) OF THE WALL CAN BE REMOVED AND REPLACED IN SECTIONS.
3. DESIGNER SHALL ACCOUNT FOR OVERTURNING MOMENT IN THE DESIGN OF THE RETAINING WALL AND ADD STABILIZATION TO THE WALL AS REQUIRED.
4. BERM SLOPES SHOWN AS 3:1. SLOPES MAY VARY AS REQUIRED BY SITE SPECIFIC GEOTECHNICAL REPORT.
5. MAXIMUM ANGLE OF FIRE IS 10° FOR TANK GUNNERY AND 15° FOR AERIAL GUNNERY. ENSURE THAT RETAINING WALL IS PROTECTED BY BERM.
6. EMPLACEMENT MAY BE COMBINED WITH A POWER CENTER. COORDINATE WITH THE ELECTRICAL DESIGN TO DETERMINE THE PROPER SIZE NEEDED FOR THE TARGET MECHANISM AND THE ELECTRICAL POWER EQUIPMENT.

GRAPHIC SCALES:

2 0 2 4
SCALE: 1" = 2'

10 0 10 20
SCALE: 1" = 10'

US ARMY CORPS OF ENGINEERS

SYMBOL	DESCRIPTION	DATE	BY

DESIGNED BY: $$DESIGN$$ | DATE: $$DATE$$
DRAWN BY: $$DRAWN$$ | REVIEWED BY: $$CHCKS$$ | SOLICITATION NO.:
SUBMITTED BY: $$SUBMITTED$$ | CONTRACT NO.:
FILE NAME: $$SHORTNAME$$ | CATEGORY CODE: N/A
SIZE: B 17"X11" | PLOT SCALE: 1:1 | PLOT DATE: $$SDATE$$

U.S. ARMY CORPS OF ENGINEERS
ENGINEERING & SUPPORT CENTER
HUNTSVILLE, AL

AUGUST 2013

RANGE AND TRAINING LAND PROGRAM
STANDARD DESIGN MANUAL

STATIONARY ARMOR TARGET (FRONTAL)

PLATE REFERENCE NUMBER
CD-07
SHEETPAGES

$$STATUS$$