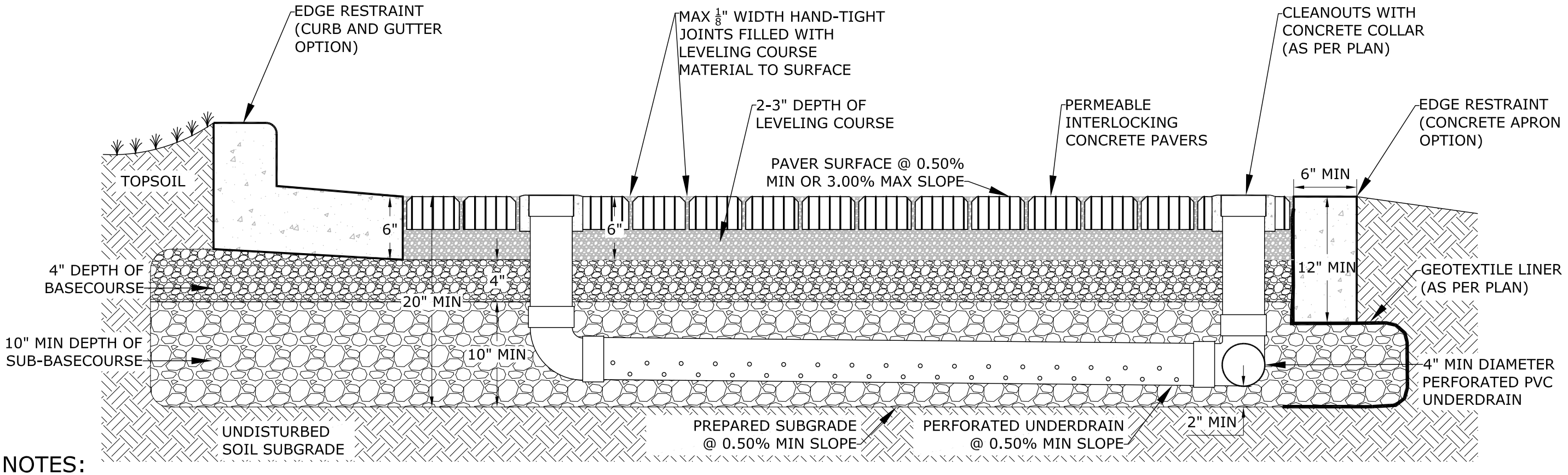
CROSS-SECTION DETAIL



NOTES:

1. CONTRACTOR MUST FOLLOW THE INTERLOCKING CONCRETE PAVEMENT INSTITUTE (ICPI) ASSOCIATION AND BRICK INDUSTRY ASSOCIATION CONSTRUCTION SPECIFICATIONS FOR COMPLETE INSTALLATION INFORMATION.

2. IT IS RECOMMENDED THAT A CERTIFIED PERMEABLE PAVEMENT INSTALLER PERFORM THE INSTALLATION OF THE PAVERS.

3. SUBGRADE PREPARATION:
   - 3.1. CONTRACTOR TO VERIFY THAT SUBGRADE PREPARATION, COMPACTION DENSITY AND ELEVATIONS CONFORM TO THE APPROVED DRAWINGS AND CONSTRUCTION SPECIFICATIONS.
   - 3.2. MINIMUM ALLOWABLE SUBGRADE SLOPE IS 0.5%.

4. EDGE RESTRAINTS:
   - 4.1. CONCRETE EDGE RESTRAINTS (CURB AND GUTTER OR APRON) SHALL BE INSTALLED AROUND THE PERIMETER OF THE PAVER AREA TO PROVIDE FOR PROPER EDGE RESTRAINT AND ALLOW FOR ADEQUATE SEPARATIONS BETWEEN PAVERS AND OTHER SURFACE TYPES.
   - 4.2. A CONCRETE COLLAR TO BE POURED AROUND ALL PENETRATIONS (INCLUDING CLEANOUTS) THROUGH THE PAVER SECTION .

5. GEOTEXTILE LINERS:
   - 5.5. GEOTEXTILE LINERS (PERMEABLE OR IMPERMEABLE AS PER PLAN) SHALL BE INSTALLED ALONG PERIMETER OF CROSS-SECTION OF THE PAVER AREA.
   - 5.3. GEOTEXTILE LINERS SHALL BE PLACED IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ALL SEAMS AND OPENINGS IN THE LINER SHALL BE SEALED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
   - 5.4. WHERE USED, IMPERMEABLE GEOMEMBRANE SHEET / LINER SHALL BE 40 MIL THICK, HIGH-DENSITY POLYETHYLENE DESIGNED SPECIFICALLY FOR FLEXIBLE GEOMEMBRANE APPLICATIONS. ADJACENT STRIPS OF IMPERMEABLE LINER SHALL OVERLAP A MINIMUM OF 18", OR PER MANUFACTURER'S SPECIFICATION.

6. AGGREGATES:
   - 6.1. ALL AGGREGATES SHALL BE ANGULAR, CRUSHED GRANITE ROCK AND SHALL BE WASHED ROCK, CLEAN OF DEBRIS AND FINES.
   - 6.2. SUB-BASECOURSE AGGREGATE SHALL BE GRADATION ASTM #2, #3, OR #4. ASTM #4 WILL NOT BE ALLOWED FOR USE WITH SUBSURFACE STORMWATER DETENTION SYSTEMS.
   - 6.3. BASECOURSE AGGREGATE SHALL BE GRADATION ASTM #57 OR #67.
   - 6.4. LEVELING COURSE SHALL BE GRADATION ASTM #8, #89 OR #9.
   - 6.5. LEVELING COURSE SHALL BE INSTALLED ALL THE WAY TO THE FINISHED GRADE SURFACE OF THE PAVERS.
   - 6.6. THE AGGREGATE SHALL BE PLACED IN 6-INCH (MAX.) LIFTS, COMPACTING EACH LIFT WITH A 10-TON, OR HEAVIER, VIBRATING STEEL DRUM ROLLER. MAKE AT LEAST FOUR PASSES WITH THE ROLLER, WITH THE INITIAL PASSES MADE WHILE VIBRATING THE ROLLER AND THE FINAL ONE TO TWO PASSES WITHOUT VIBRATION.
   - 6.7. CONTRACTOR MAY BE REQUIRED TO PROVIDE COMPACTION TESTING.

7. UNDERDRAIN:
   - 7.1. UNDERDRAIN PIPE TO BE PERFORATED OR SLOTTED.
   - 7.2. DO NOT WRAP UNDERDRAIN WITH GEOTEXTILE OR SOCK.

8. CLEANOUTS:
   - 8.1. PROVIDE CLEANOUTS (AS PER PLAN) TO ALLOW INSPECTION (BY CAMERA) OF THE UNDERDRAIN SYSTEM DURING AND AFTER CONSTRUCTION.
   - 8.2. CLEANOUTS SHALL BE PROVIDED AT EACH BEND GREATER THAN OR EQUAL TO 90° AND EVERY 100' ALONG A STRAIGHT RUN. CLEANOUT SHALL BE INSTALLED PER THE APPROVED PLANS.
   - 8.3. CLEANOUTS SHALL BE A SOLID WALL PVC STRUCTURE FOR ALL VERTICAL SECTIONS WITH FITTINGS TO CONNECT TO DISTRIBUTION AND UNDERDRAIN PIPING MATERIALS, AS REQUIRED.
   - 8.4. PROVIDE OBSERVATION PORT AT DOWNSTREAM END OF EACH PERMEABLE PAVEMENT SECTION, CONNECTED TO UNDERDRAIN WHEN PRESENT.
   - 8.5. THE CLEANOUT FRAME AND COVER SHALL BE DUCTILE IRON AND STAMPED "CLEANOUT."

9. PAVERS:
   - 9.1. CONTRACTORS MUST INSTALL A PAVER PRODUCT THAT IS APPROVED BY THE ICPI.
   - 9.2. FINISHED GRADE OF THE PAVER SURFACE TO BE EVENLY SLOPED AND FLUSH WITH THE ADJACENT EDGE RESTRAINTS.
   - 9.3. ALL PENETRATIONS THROUGH THE PAVER SURFACE, INCLUDING CLEANOUT LIDS, SHALL BE INSTALLED WITH A CONCRETE COLLAR POURED AROUND THE PERIMETER.

10. POST-INSTALLATION:
    - 10.1. LOOSE MATERIALS SHALL NOT BE STORED ON THE PERMEABLE PAVEMENT AREA.
    - 10.2. THE CONTRACTOR SHALL, AT ALL TIMES DURING AND AFTER SYSTEM INSTALLATION, PREVENT SEDIMENT, DEBRIS AND DIRT FROM ANY SOURCE FROM ENTERING THE PERMEABLE PAVEMENT SYSTEM.

PERMEABLE INTERLOCKING CONCRETE PAVERS

City of Fort Collins

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STORMWATER CONSTRUCTION DETAILS

APPROVED:

DATE REVISED: DECEMBER 2017

DRAWN BY: HEM

DETAIL
D-54