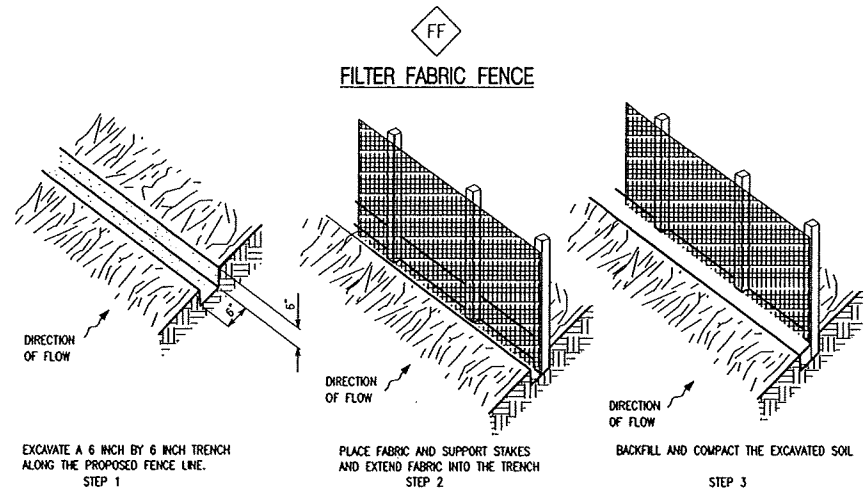


ADR & ASSOCIATES, LTD. NEWARK, OHIO (740)-345-1921 / WESTERVILLE, OHIO (614)-891-8643

DATE: 11/07/03 FILE: P:\ADR\2002\123201\DRG\123201EROS.DGN



EXCAVATE A 6 INCH BY 6 INCH TRENCH ALONG THE PROPOSED FENCE LINE. STEP 1

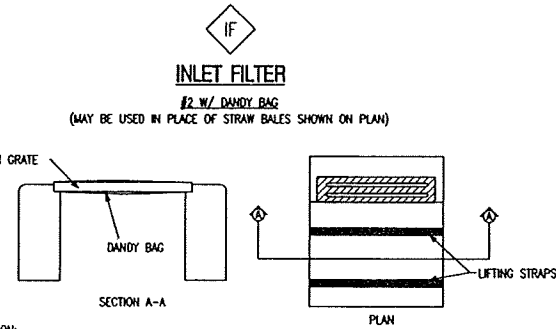
PLACE FABRIC AND SUPPORT STAKES AND EXTEND FABRIC INTO THE TRENCH. STEP 2

BACKFILL AND COMPACT THE EXCAVATED SOIL. STEP 3

MATERIALS: FILTER FABRIC SHALL MEET THE REQUIREMENTS OF CMS 207.02.

CONSTRUCTION: THE BOTTOM OF THE FABRIC FENCE SHALL BE MAINTAINED TO BE FUNCTIONAL AT THE DIRECTION OF THE ENGINEER. THIS SHALL INCLUDE REMOVAL OF TRAPPED SEDIMENT AND REQUIRED CLEANING, REPAIR, AND/OR REPLACEMENT OF THE FILTER FABRIC. SEDIMENT SHALL BE REMOVED WHEN ITS DEPTH REACHES HALF THE HEIGHT OF THE LOWEST SECTION OF FENCE.

PAYMENT: THE COST OF ALL MATERIALS, CONSTRUCTION, MAINTENANCE, AND REMOVAL SHALL BE PAID FOR UNDER ITEM 207, LIN FT, FILTER FABRIC FENCE.



INLET FILTER #2 W/ DANDY BAG

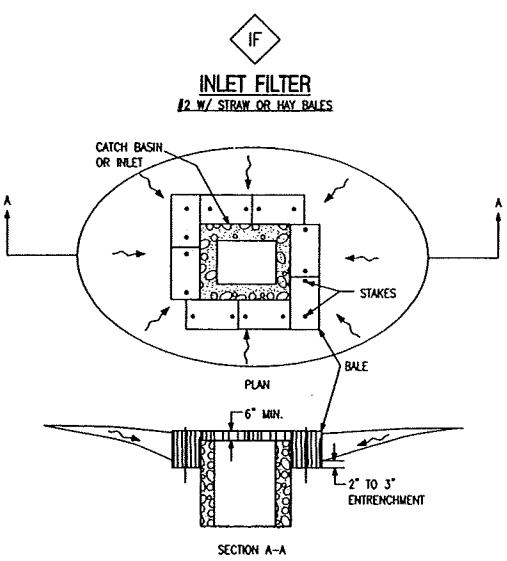
(MAY BE USED IN PLACE OF STRAW BALES SHOWN ON PLAN)

INSTALLATION:

STAND GRATE ON END. PLACE DANDY BAG OVER GRATE. ROLL GRATE OVER SO THAT OPEN END IS UP. PULL UP SLACK. TUCK FLAP IN. BE SURE END OF GRATE IS COMPLETELY COVERED BY FLAP OR DANDY BAG WILL NOT FIT PROPERLY. HOLDING HANDLES, CAREFULLY PLACE DANDY BAG WITH GRATE INSERTED INTO CATCH BASIN FRAME SO THAT RED DOT ON THE TOP OF DANDY BAG IS VISIBLE.

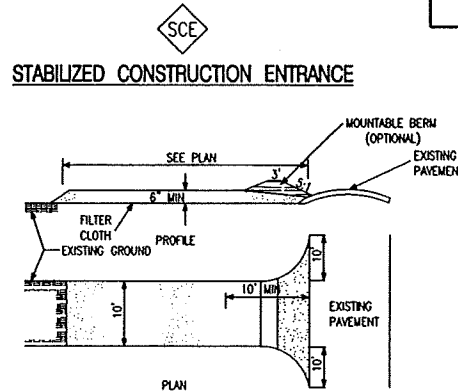
MAINTENANCE:

REMOVE DRIED SEDIMENT FROM SURFACE OF UNIT AS NEEDED WITH STIFF BRUSH OR SQUARE POINT SHOVEL. REMOVE FINE MATERIAL FROM INSIDE ENVELOPE AS NEEDED.



INLET FILTER #2 W/ STRAW OR HAY BALES

SECTION A-A

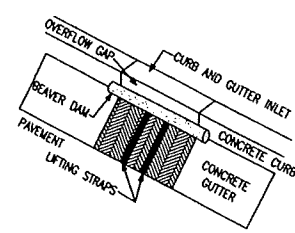


STABILIZED CONSTRUCTION ENTRANCE

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE- USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH- AS REQUIRED.
3. THICKNESS- NOT LESS THAN SIX (6) INCHES.
4. WIDTH- TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH- WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
8. WASHING- WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

THE BEAVER DAM



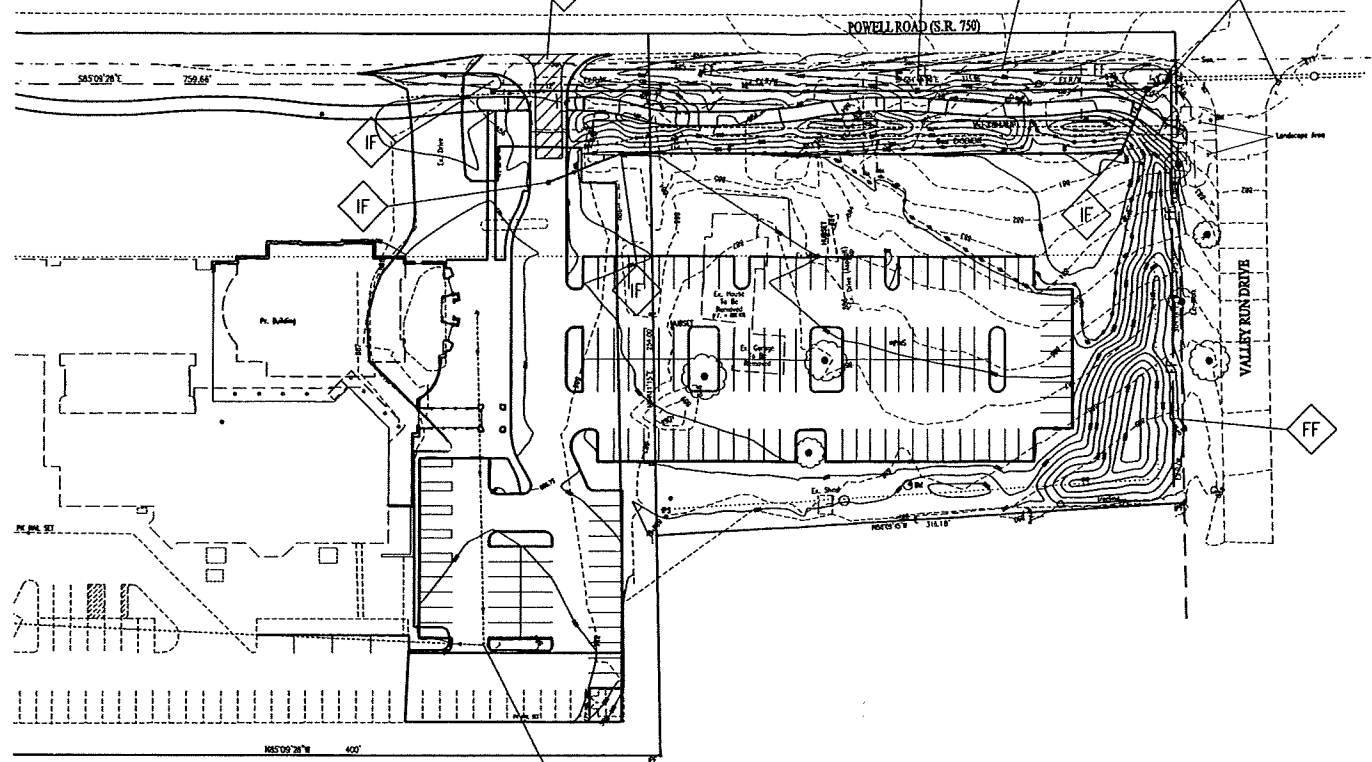
INSTALLATION

STAND GRATE ON END. SLIDE THE BEAVER DAM BAG ON W/ DAM ON TOP OF THE GRATE. PULL EXCESS DOWN. LAY UNIT ON ITS SIDE. CAREFULLY TUCK FLAP IN. PRESS VELCRO STRIPS TOGETHER. INSTALL THE UNIT MAKING SURE FRONT EDGE OF GRATE IS INSERTED IN FRAME FIRST THEN LOWER BACK INTO PLACE. PRESS VELCRO DOTS TOGETHER THAT ARE LOCATED UNDER LIFTING STRAPS. THIS ENSURES STRAPS REMAIN FLUSH WITH CUTTER.

MAINTENANCE:

WITH A STIFF BRISTLE BRUSH OR SQUARE POINT SHOVEL REMOVE SILT AND OTHER DEBRIS OFF SURFACE AFTER EACH EVENT.

# EROSION CONTROL



ESTIMATED QUANTITIES	
ITEM 207 FILTER FABRIC FENCE	597 LF
ITEM 207 INLET FILTER	7 EA
ITEM 207 STABILIZED CONSTRUCTION ENTRANCE	1 EA
ITEM 207 BEAVER DAM	2 EA
QUANTITIES CARRIED TO THE GENERAL SUMMARY	

## LEGEND

- STRAW BALE BARRIER (SEE NEXT DETAIL SHEET)
- INLET FILTER (SEE NEXT DETAIL SHEET)
- FILTER FABRIC FENCE (SEE NEXT DETAIL SHEET)
- STABILIZED CONSTRUCTION ENTRANCE (SEE NEXT DETAIL SHEET)
- STAND PIPE (SEE NEXT DETAIL SHEET)

## NOTES

CONTRACTOR RESPONSIBILITY: DETAILS HAVE BEEN PROVIDED ON THE PLANS IN AN EFFORT TO HELP THE CONTRACTOR PROVIDE EROSION AND SEDIMENTATION CONTROL. THE DETAILS SHOWN ON THE PLAN SHALL BE CONSIDERED A MINIMUM. ADDITIONAL OR ALTERNATE DETAILS MAY BE FOUND IN THE MOST RECENT EDITION OF THE S.C.S. MANUAL "WATER MANAGEMENT AND SEDIMENT CONTROL FOR URBANIZING AREAS." THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING NECESSARY AND ADEQUATE MEASURES FOR PROPER CONTROL OF EROSION AND SEDIMENT RUNOFF FROM SITE ALONG WITH PROPER MAINTENANCE AND INSPECTION IN COMPLIANCE WITH THE NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA, ALL SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE IN PLACE. FIELD ADJUSTMENTS WITH RESPECT TO LOCATIONS AND DIMENSIONS MAY BE MADE BY THE ENGINEER.

THE CONTRACTOR SHALL PLACE INLET PROTECTION FOR THE EROSION CONTROL IMMEDIATELY AFTER CONSTRUCTION OF THE CATCH BASINS OR INLETS.

IT MAY BECOME NECESSARY TO REMOVE PORTIONS OF THE BARRIER DURING CONSTRUCTION TO FACILITATE THE GRADING OPERATIONS IN CERTAIN AREAS. HOWEVER, THE BARRIER SHALL BE IN PLACE IN THE EVENING OR DURING ANY INCLEMENT WEATHER.

THE LIMITS OF SEEDING AND MULCHING ARE AS SHOWN WITHIN THE PLAN. SEEDING HAS BEEN ASSUMED TO BE 5'-0" OUTSIDE THE WORK LIMITS, OR THE RIGHT-OF-WAY, WHICHEVER IS GREATER. ALL AREAS NOT DESIGNATED TO BE SEEDDED SHALL REMAIN UNDER NATURAL COVER. THOSE AREAS DISTURBED OUTSIDE THE SEEDING LIMITS SHALL BE SEEDDED AND MULCHED AT THE CONTRACTOR'S EXPENSE.

TEMPORARY SEEDING: ANY AREA WHICH WILL BE LEFT DORMANT (UNDISTURBED) FOR MORE THAN 45 DAYS SHALL BE SEEDDED WITHIN 7 DAYS OF TERMINATED WORK. IF PERMANENT SEEDING IS NOT APPLIED AT THIS TIME, TEMPORARY SEEDING SHALL BE DONE WHICH SHALL CONSIST OF FERTILIZING, WATERING AND SEEDING AT THE RATES INDICATED UNDER ITEM 659. SEED SHALL BE OATS FROM DECEMBER 1 TO JUNE 1 AND ANNUAL RYE FROM JUNE 1 TO DECEMBER 1.

MULCHING: USE MULCH ONLY NOVEMBER 1 TO MARCH 1 UNLESS USING A DORMANT SEEDING.

PERMANENT SEEDING SHALL BE DONE BETWEEN MARCH 15 AND SEPTEMBER 15. IF SEEDING IS DONE BETWEEN SEPTEMBER 15 AND MARCH 15, IT SHALL BE CLASSIFIED AS "TEMPORARY SEEDING." PERMANENT SEED SHALL BE 40% KENTUCKY BLUEGRASS, 40% CREEPING RED FESCUE, 20% ANNUAL RYEGRASS. PERMANENT SEEDING SHALL CONSIST OF FERTILIZING, WATERING AND SEEDING RATE INDICATED UNDER ITEM 659.

RATES OF APPLICATION OF ITEM 659:  
 SEED: 2 LBS./1,000 SQ.FT.  
 FERTILIZER: 20 LBS./1,000 SQ.FT.  
 MULCH: (STRAW OR HAY) 2 TONS/ACRE

IN AREAS OF CONCENTRATED FLOW OR IN AREAS WHERE THE SLOPE IS 3:1 OR STEEPER USE TURF TYPE FESCUE.

THE COST OF TEMPORARY CHANNELS, SEDIMENT DAMS, SEDIMENT BASINS, AND OTHER APPURTENANT EARTH-MOVING OPERATIONS SHALL BE INCLUDED IN THE PRICE BID FOR EROSION AND SEDIMENTATION CONTROL QUANTITIES. RUNOFF FROM DISTURBED AREAS ARE TO BE DIVERTED INTO SEDIMENT BASINS DURING CONSTRUCTION.

MAINTENANCE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE SEDIMENT CONTROL FEATURES USED ON THIS PROJECT. THE SITE SHALL BE INSPECTED PERIODICALLY AND WITHIN 24 HOURS OF A SIGNIFICANT RAINFALL. RECORDS OF THESE INSPECTIONS SHALL BE KEPT AND MADE AVAILABLE TO JURISDICTIONAL AGENCIES BE REQUESTED. ANY SEDIMENT OR DEBRIS WHICH HAS REDUCED THE EFFICIENCY OF A STRUCTURE SHALL BE REMOVED IMMEDIATELY. SHOULD A STRUCTURE OR FEATURE BECOME DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE AT NO ADDITIONAL COST TO THE OWNER.

NOT ALL DETAILS SHOWN ON THIS SHEET MAY BE REQUIRED FOR THIS PROJECT.

SCHEDULE: THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF OPERATIONS TO THE OWNER.

ALL CURB INLETS SHALL BE PROTECTED WITH INLET FILTERS UNTIL PAVEMENT IS IN PLACE, AT WHICH TIME BEAVER DAMS SHALL BE INSTALLED.

HORIZONTAL SCALE IN FEET

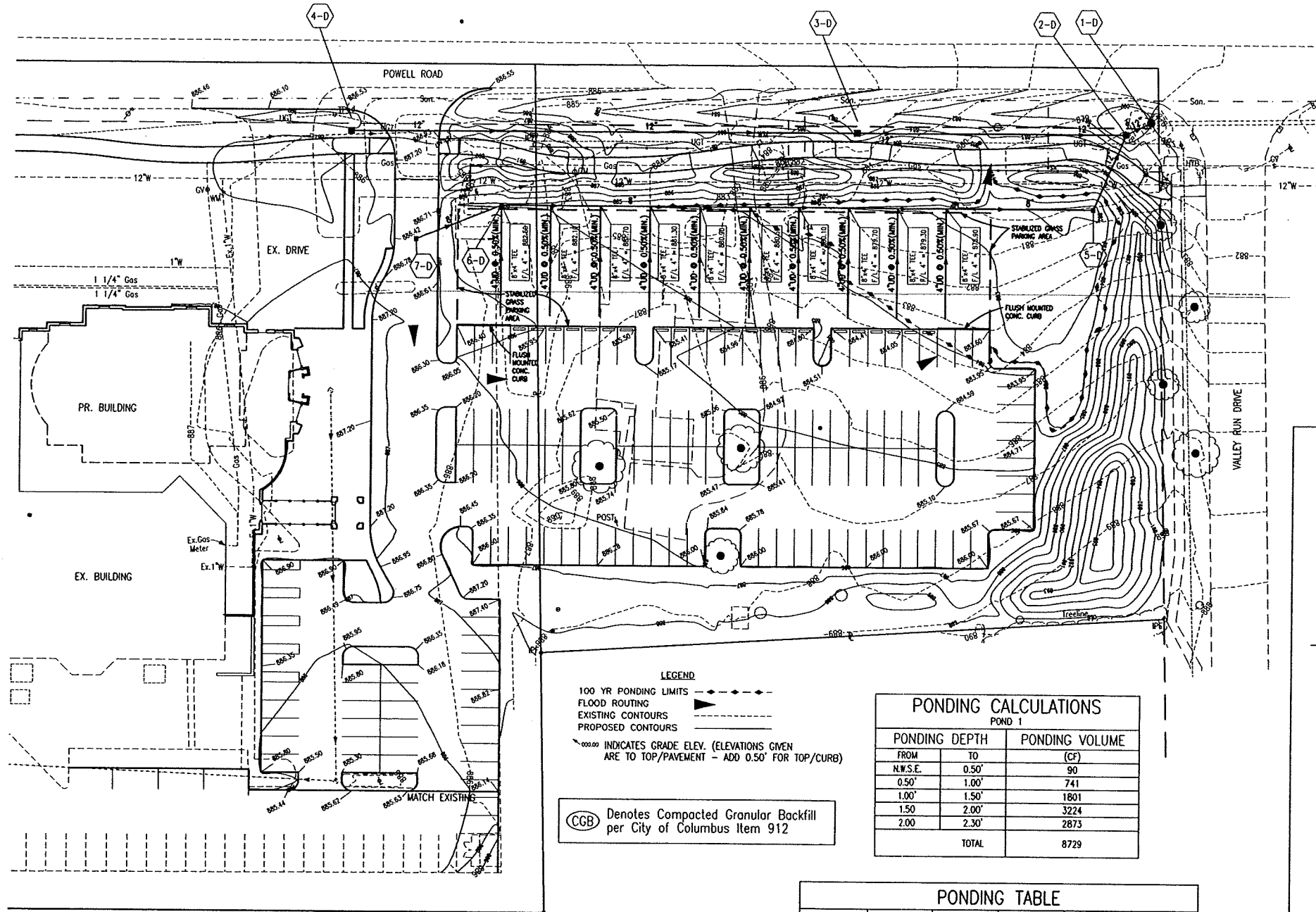
0 50 100

DRAWN: B/W  
 CHECKED: RRB  
 CALCULATED: DGK

EROSION CONTROL & EROSION DETAILS

POWELL UNITED METHODIST CHURCH  
 SITE IMPROVEMENTS

5  
5



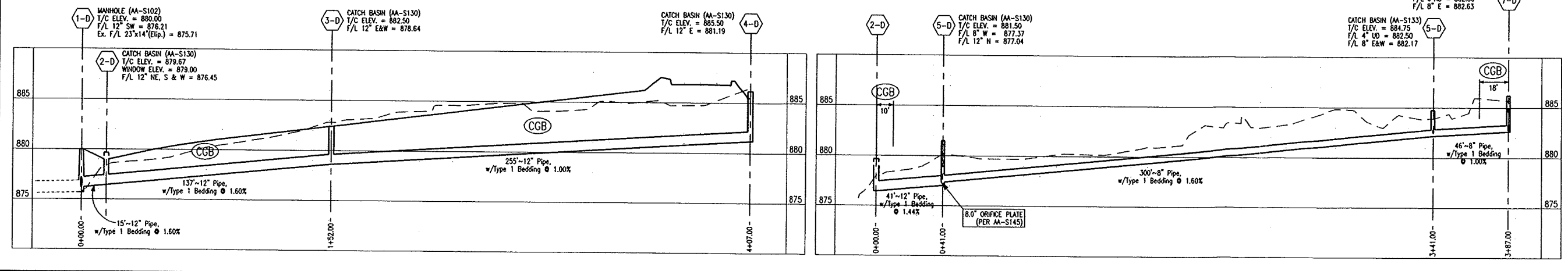
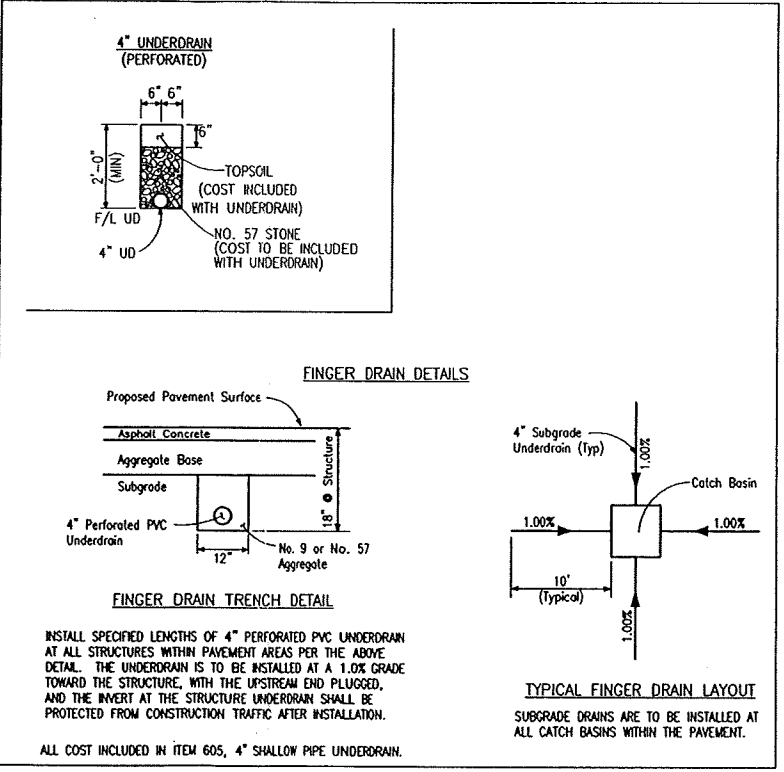
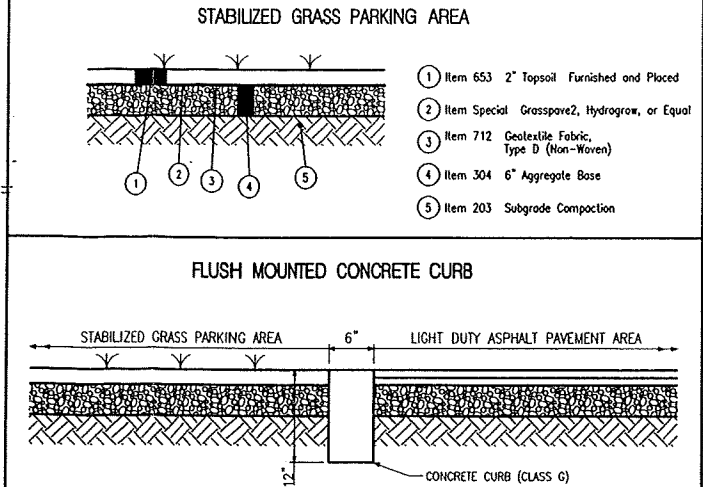
**LEGEND**  
 100 YR PONDING LIMITS  
 FLOOD ROUTING  
 EXISTING CONTOURS  
 PROPOSED CONTOURS  
 0.0000 INDICATES GRADE ELEV. (ELEVATIONS GIVEN ARE TO TOP/PAVEMENT - ADD 0.50' FOR TOP/CURB)  
 (CGB) Denotes Compacted Granular Backfill per City of Columbus Item 912

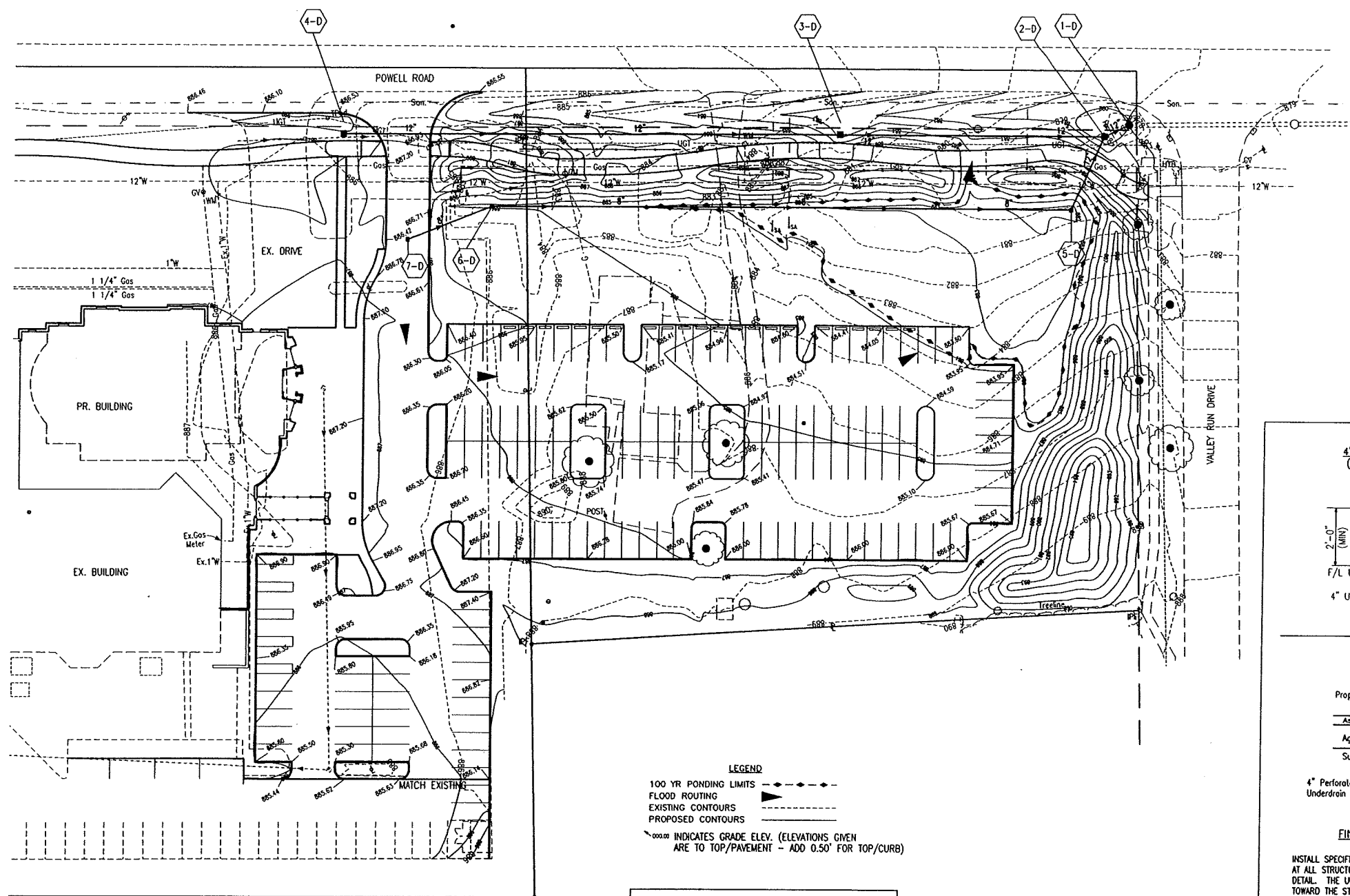
**PONDING CALCULATIONS**  
POND 1

PONDING DEPTH	PONDING VOLUME
FROM TO	(CF)
N.W.S.E. 0.50'	90
0.50' 1.00'	741
1.00' 1.50'	1801
1.50' 2.00'	3224
2.00' 2.30'	2873
<b>TOTAL</b>	<b>8729</b>

**PONDING TABLE**

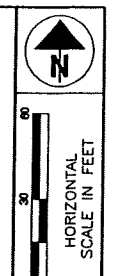
STRUCTURE NUMBERS	PONDING REQUIRED (CF)	PONDING PROVIDED (CF)	TOP OF CASTING	PONDING ELEVATION	PONDING DEPTH (MAX)
5-D	8021	8729	881.65	883.95	2.30'
<b>TOTAL</b>	<b>8021</b>	<b>8729</b>			





STRUCTURE NUMBERS	PONDING REQUIRED (CF)	PONDING PROVIDED (CF)	TOP OF CASTING	PONDING ELEVATION	PONDING DEPTH (MAX)
5-D	8021	8729	881.65	883.95	2.30'
TOTAL	8021	8729			

PONDING DEPTH		PONDING VOLUME
FROM	TO	(CF)
N.W.S.E.	0.50'	90
0.50'	1.00'	741
1.00'	1.50'	1801
1.50'	2.00'	3224
2.00'	2.30'	2873
TOTAL		8729



CALCULATED BY RRB  
DRAWN BY BAW  
CHECKED BY DGK

GRADING PLAN

**LEGEND**  
 100 YR PONDING LIMITS  
 FLOOD ROUTING  
 EXISTING CONTOURS  
 PROPOSED CONTOURS  
 0.00.00 INDICATES GRADE ELEV. (ELEVATIONS GIVEN ARE TO TOP/PAVEMENT - ADD 0.50' FOR TOP/CURB)

**CGB** Denotes Compacted Granular Backfill per City of Columbus Item 912

**4" UNDERDRAIN (PERFORATED)**

TOPSOIL (COST INCLUDED WITH UNDERDRAIN)  
 NO. 57 STONE (COST TO BE INCLUDED WITH UNDERDRAIN)

**FINGER DRAIN TRENCH DETAIL**

Proposed Pavement Surface  
 Asphalt Concrete  
 Aggregate Base  
 Subgrade  
 4" Perforated PVC Underdrain

**FINGER DRAIN DETAILS**

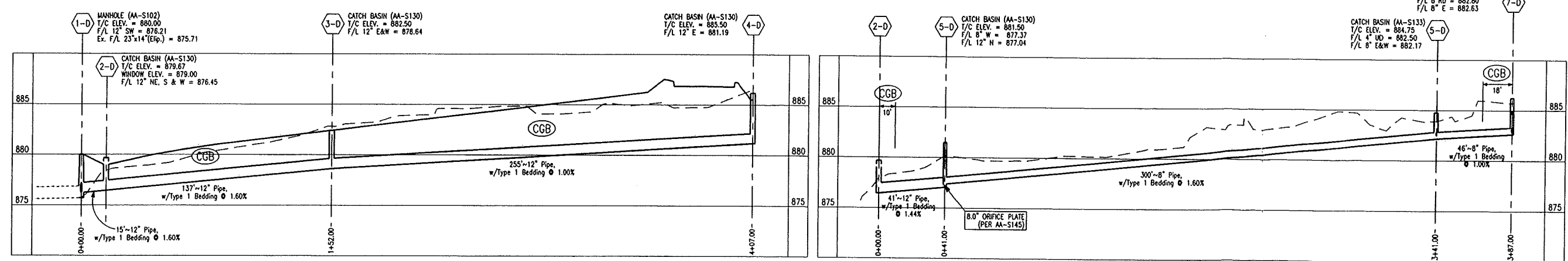
4" Subgrade Underdrain (Typ)  
 No. 9 or No. 57 Aggregate  
 18" Structure  
 12" Structure

**TYPICAL FINGER DRAIN LAYOUT**

10' (Typical)  
 1.00% Slope

INSTALL SPECIFIED LENGTHS OF 4" PERFORATED PVC UNDERDRAIN AT ALL STRUCTURES WITHIN PAVEMENT AREAS PER THE ABOVE DETAIL. THE UNDERDRAIN IS TO BE INSTALLED AT A 1.0% GRADE TOWARD THE STRUCTURE, WITH THE UPSTREAM END PLUGGED, AND THE INVERT AT THE STRUCTURE UNDERDRAIN SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC AFTER INSTALLATION.

ALL COST INCLUDED IN ITEM 605, 4" SHALLOW PIPE UNDERDRAIN.



POWELL UNITED METHODIST CHURCH SITE IMPROVEMENTS

