



# Cleveland Metroparks

## ADMINISTRATION PARKING LOT IMPROVEMENTS

### CLEVELAND METROPARKS ZOO

#### BOARD OF PARK COMMISSIONERS

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**LOCATION MAP**  
NOT TO SCALE

#### LIST OF DRAWINGS

DWG. NO	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES
3	DETAILS
4	DEMOLITION PLAN
5	UTILITY PLAN
6	GRADING PLAN
7	PAVING PLAN
8	PARKING PLAN
9	STORMWATER POLLUTION PREVENTION
10	STORMWATER POLLUTION NOTES & DETAILS

THIS PROJECT INCLUDES ITEMS WHICH MUST COMPLY WITH THE TECHNICAL REQUIREMENTS REFERENCED IN THE 2016 OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIALS SPECIFICATIONS (CMS), EXCEPT AS MODIFIED HEREIN, OR AS SHOWN ON THE PLANS. MODIFICATIONS INCLUDE:

1. DEPARTMENT OF TRANSPORTATION OR "ODOT" SHALL REFER TO CLEVELAND METROPARKS (CMP)
2. THE PROJECT SHALL BE COMPENSATED AS A LUMP SUM. ODOT PAY ITEMS AND QUANTITIES DO NOT APPLY
3. THE CONTRACTOR SHALL PROVIDE ALL TESTING SERVICES REFERENCED AND AS NOTED AND/OR MODIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS
4. ODOT SECTION 401.20 ASPHALT BINDER PRICE ADJUSTMENT DOES NOT APPLY.

**UNDERGROUND UTILITIES**  
TWO WORKING DAYS  
**BEFORE YOU DIG**  
CALL 800-362-2764 (Toll Free)  
OHIO UTILITIES  
PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

NOTE: FOR DETAILED VICINITY MAPS VISIT  
WWW.CLEMETPARKS.COM, CLICK ON RECREATION-  
PLAN YOUR VISIT-CLEVELAND METROPARKS  
MAP-BROWSE BY RESERVATION-VIEW MAP

**CONSTRUCTION SPECIFICATIONS**

The Ohio Department of Transportation (ODOT) Construction and Material Specifications 2016 Edition (CMS) shall govern where referenced and as modified herein. CMS quantities and pay items shall not apply.

**QUANTITIES**

The scope of work is based on the limits of work as shown on the plans. Measurements and quantities of materials that may be shown on plans or included in the project manual are incorporated for convenience only. The contractor shall be responsible for verifying all measurements and furnishing whatever quantity of materials necessary to construct the project in accordance with the plans and specifications. There will be no adjustment in the contract sum for any additional amount or types of materials required in addition to those listed.

Prior to the start of any construction activities, the Contractor will have a site meeting with the project engineer to mark the disturbance limits, pavement and earthwork limits, and new asphalt pavement limits.

**UTILITY OWNERSHIP**

Within the project areas, most utilities are owned and maintained by Cleveland Metroparks. At least two working days prior to commencing construction operations in an area, the Contractor shall notify the project engineer at (216) 739-6044.

The Contractor is responsible for contacting any other utility agency whose utilities may be impacted in any way as a result of the proposed work.

**PRECAUTION AGAINST UTILITY DAMAGE**

The Contractor shall take all necessary precautions, at no expense to the owner, to avoid damage to existing underground utility lines during construction.

**CONSTRUCTION ACTIVITIES SEQUENCE**

All existing asphalt pavement shall remain until all utility work, biosoil placement, pervious paver and curbing work, and final grading is complete. Grinding and asphalt placement operations may begin after all other work is complete with the exception of the sodding, seeding, and mulching.

**MAINTAINING PARKING LOT TRAFFIC**

Contractor shall coordinate construction activities while keeping at least half of the parking lot open for parking use by employees/general public. Contractor should plan on performing grinding and main lot paving operations on the weekend or after 4pm M-F. Full depth pavement areas and southern parking pavement areas can be performed M-F, as long as at least half of the parking lot is accessible.

The Contractor shall be responsible for properly barricading off the work zone during construction activities and the overnight hours. Any costs associated with providing signs, plastic barrels, barricades, flag persons, etc., as required to maintain parking lot traffic or for other related project work items shall also be provided by the Contractor. At least one week's notice shall be given to the project engineer prior to any work effecting the parking areas.

**EARTHWORK**

Excavation and embankment activities shall conform with ODOT CMS Items 203 and 204 except as modified with the plans and specifications.

Backfill material shall be as specified in any relevant notes and trench details. All backfill will be pre-approved by the Engineer before being placed.

The Contractor shall be responsible to haul out any material as necessary to achieve final grade in conformance with the proposed contours and spot elevations provided.

After final grading operations are complete, 4" of clean screened topsoil shall be placed over all disturbed areas outside of biosoil mix areas. One row of sod shall be furnished and placed around the outer perimeter of each vegetated island.

**LAYOUT**

Cleveland Metroparks will provide an electronic AutoCAD file to the Contractor for horizontal and vertical layout. Field layout of the project shall be included in the lump sum bid.

**SURFACE AND SUBSURFACE CONDITIONS**

It is the responsibility of the contractor to make any further investigations of surface and subsurface conditions prior to submitting a proposal. In the event that any contractor or bidder desires to make any additional investigation, notice must be given to Cleveland Metroparks and all other local jurisdictions as necessary. All areas disturbed by these activities must be immediately restored to original condition.

**DUST CONTROL**

The contractor shall supply all labor, material, and equipment necessary, such as calcium chloride, water, or a motorized dust-free street sweeping device, as directed by the owner to maintain all roadways and parking areas being used for access to the construction site. Payment for all dust control and street cleaning measures as necessary shall be included in the lump sum bid.

**STORMWATER POLLUTION PREVENTION NOTES:**

Contractor to install erosion control measures as shown and any additional measures as directed by the engineer throughout construction.

Disturbed areas must be restored to the original condition immediately upon completion of work including, but not limited to grading, topsoil, seeding, mulching, and pavement replacement. Erosion control measures to remain in place until restored vegetation is established.

All stormwater erosion prevention practices must be installed first before any earth moving occurs.

All erosion and sediment controls on site must be inspected at least once every seven (7) calendar days and within 24 hours after any storm event greater than 0.5 inches of precipitation within any 24 hour period by the owner. A written log of the these inspections and improvements to controls shall be kept on site.

Other erosion control items may be necessary due to progress and weather conditions & shall be installed by site contractor. Regular inspection and maintenance shall be provided for all erosion control practices in accordance with the SWPPP on sheet 8 and 9.

All erosion control practices must meet the standards and specifications of "Rainwater and Land Development" in the Ohio Standards for Stormwater Management and Land Development and Urban Stream Protection Manual, latest edition.

Contractor is responsible for containing all silt on-site to prevent any damage to downstream property.

Sediment control shall be accomplished by hydroseeding immediately upon completion of excavation or fill and finished grading in accordance with Item 659 Ohio Department of Transportation Construction and Material Specifications or as directed by the engineer.

Restoration of all disturbed areas shall immediately follow excavation and grading operations. Delay in restoration shall necessitate additional temporary erosion control measures as directed by the engineer.

Reference to additional Stormwater Pollution Prevention Plan and Notes on sheets 9 and 10.

**TESTING AND INSPECTION**

The Contractor shall be responsible for formulating the Job Mix Formula (JMF) per ODOT CMS 448 and shall submit the JMF to the Metroparks for approval prior to ordering materials. The Contractor shall be responsible for employing independent testing laboratory to do extraction/gradation and Marshall property tests at the asphalt plant at least once per day during any days that asphalt is being placed on the project. Asphalt test samples will be obtained each paving day by the independent testing laboratory employed by the Contractor from each of the project areas being paved and tested for compliance with referenced CMS items and approved JMF. The Contractor shall also obtain temperatures for every load of asphalt and record them on the weigh tickets.

A written report containing all test results shall be submitted to the Engineer with 14 working days of the test being performed.

Costs for testing shall be included in the Lump Sum Bid.

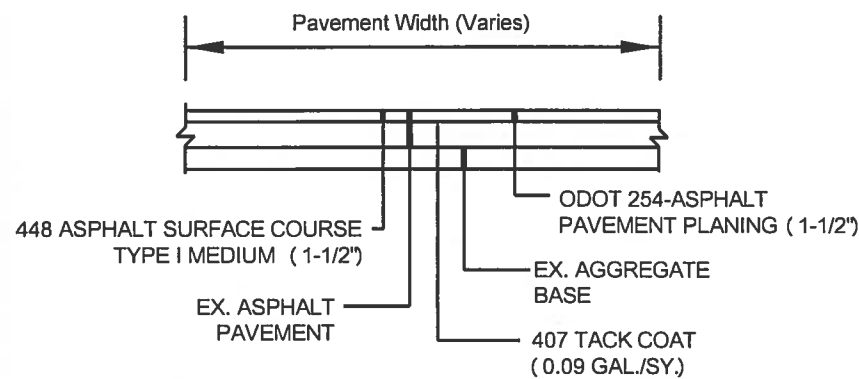
**CURB, JOINT AND STRUCTURE SEALING**

The Contractor shall apply hot crack and joint sealer per CMS 705.04 to all pavement locations that abut a concrete curb, apron, and sidewalks, at all butt-joints, and around the perimeter of all catch basins, manholes, monuments, water valves, gas valves, etc. Sealing of curbs, joints, and structures shall be included in the lump sum bid.

REVISED  
JOB  
DATE  
7/9/18

GENERAL NOTES  
ADMINISTRATION PARKING LOT IMPROVEMENTS

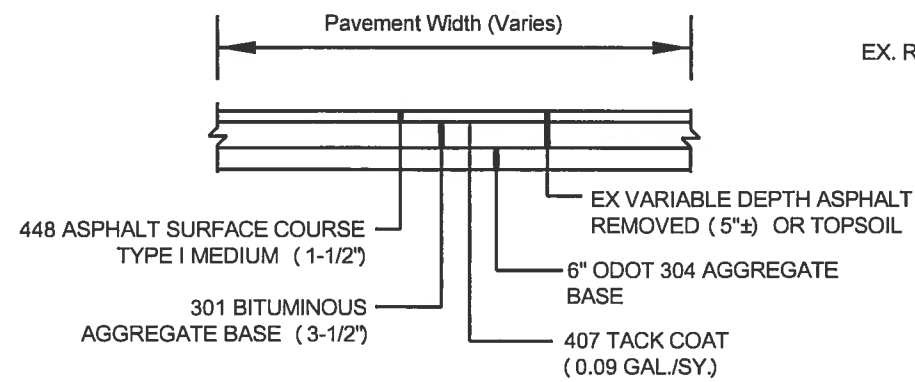
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**TYPICAL DETAIL 1: 1-1/2" GRIND AND OVERLAY**  
AS PER PLAN

**NOTES:**

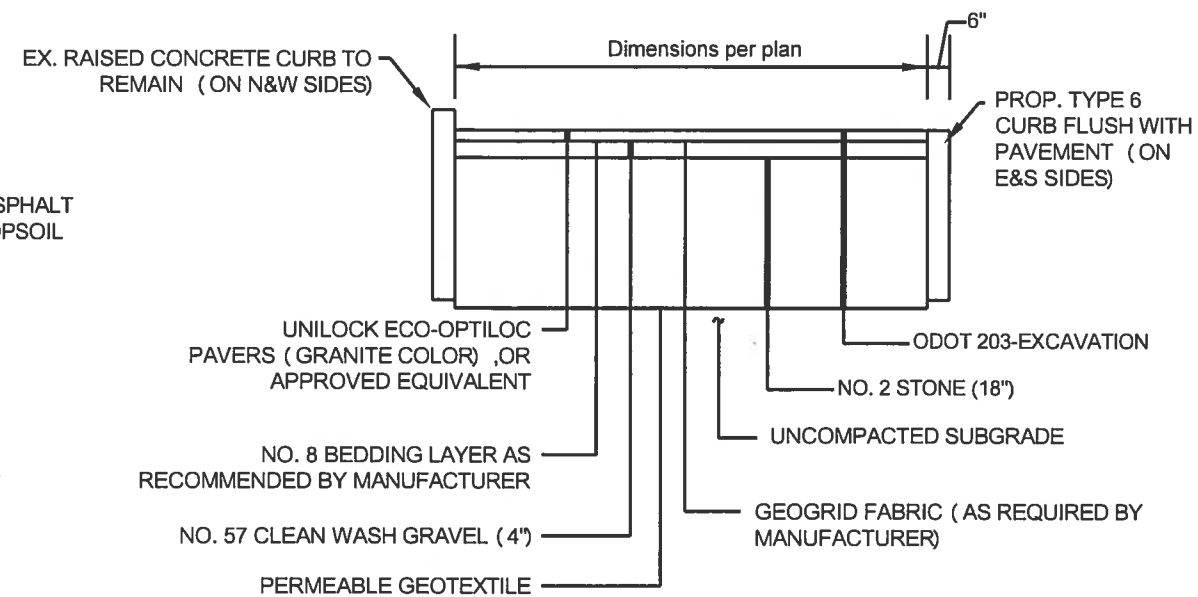
1. Gravel will not be permitted to be used in asphalt concrete.
2. Grade of new asphalt shall be set to maintain positive drainage.
3. Drainage patterns of the grind and overlay section of the existing parking lot shall match existing pavement.
4. Compliance with all ADA slope regulations is required. See spot elevations.



**TYPICAL DETAIL 1: FULL DEPTH ASPHALT PAVEMENT SECTION**  
AS PER PLAN

**NOTES:**

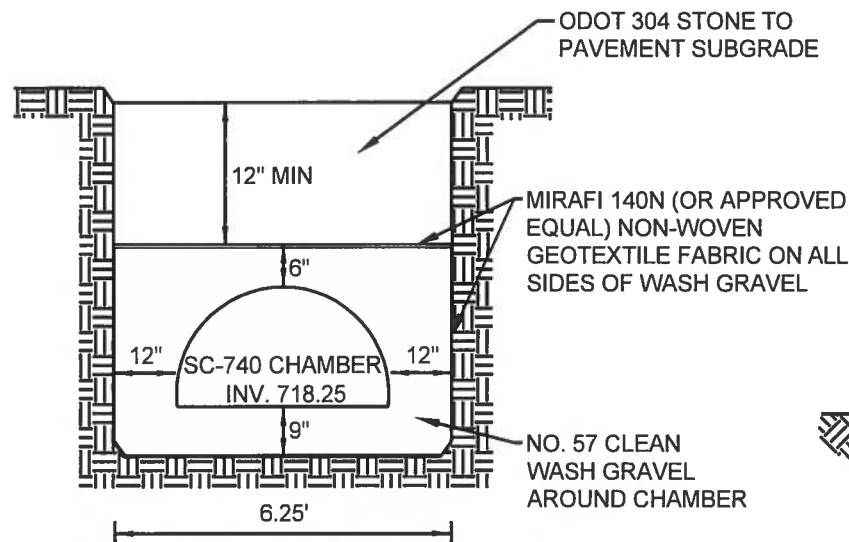
1. Gravel will not be permitted to be used in asphalt concrete.
2. Grade of new asphalt shall be set to maintain positive drainage.
3. Drainage patterns of the full depth pavement shall be set according to grading plan.
4. Compliance with all ADA slope regulations is required. See spot elevations.
5. All subgrade is to be graded as necessary to achieve proposed grades and properly compacted/rolled.



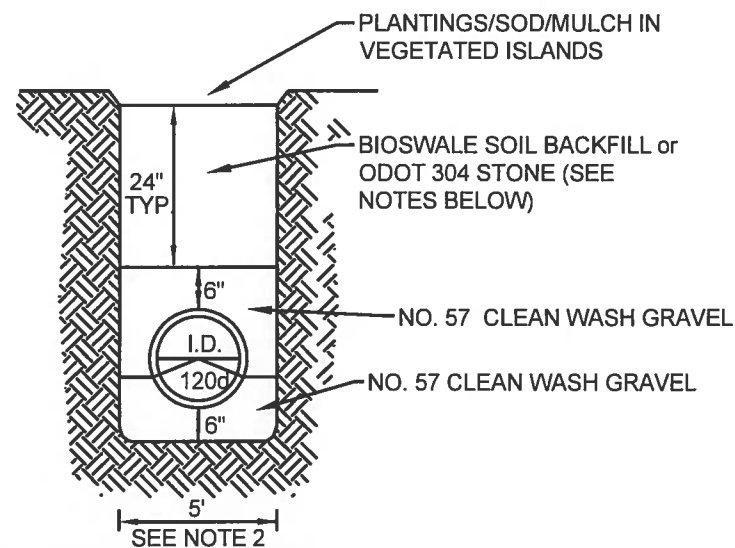
**TYPICAL DETAIL 3: PERVIOUS PAVERS PAVEMENT**  
AS PER PLAN

**NOTES:**

1. Grade pavers shall be set to maintain positive drainage toward catch basin.
2. Gradation of stone for setting pavers and filling voids shall be in accordance with manufacturer's recommendations.



**TYPICAL DETAIL 4: SC-740 CHAMBER BEDDING DETAIL**  
NOT TO SCALE

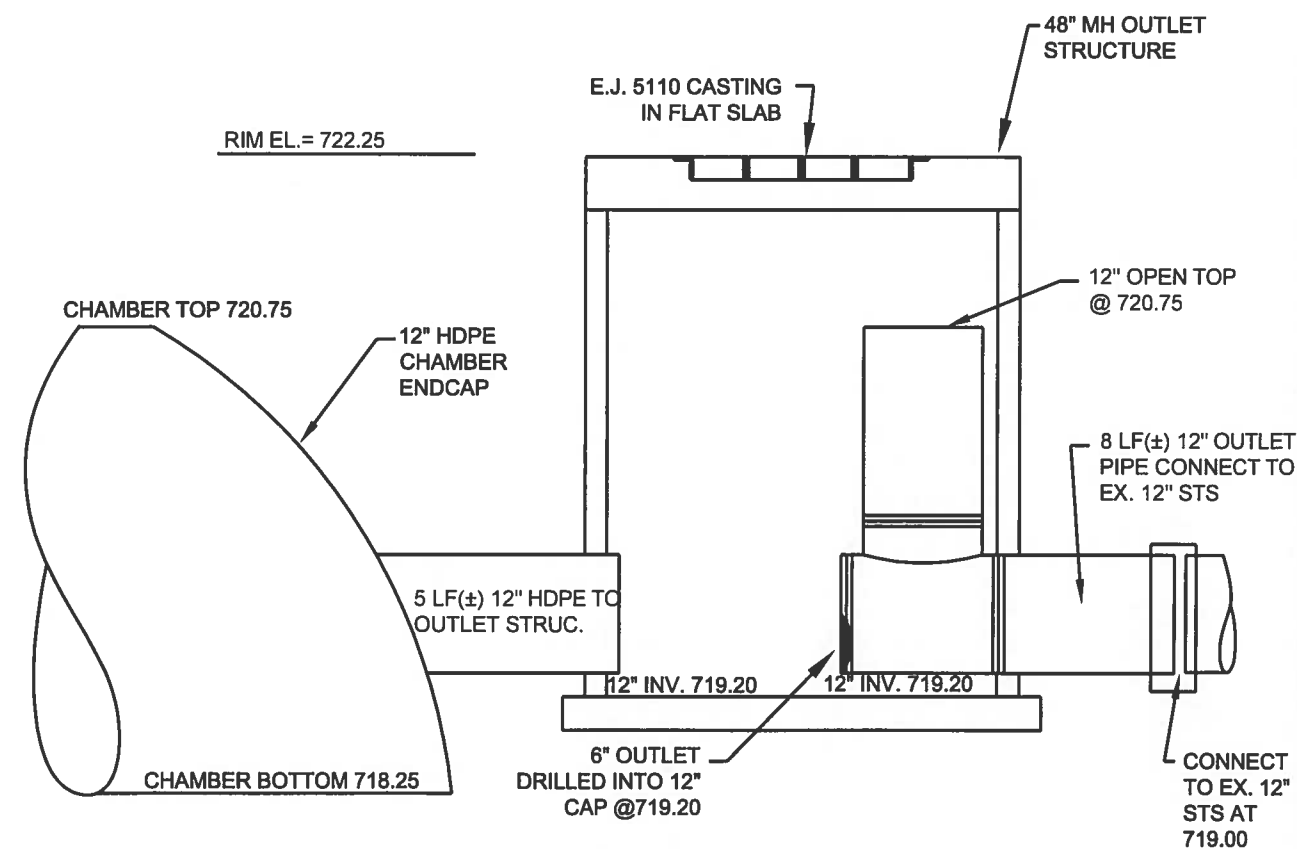


**TYPICAL DETAIL 5: SEWER BEDDING DETAIL**  
NOT TO SCALE

**NOTES:**

1. Bioswale soil must be certified by a qualified laboratory and have the following attributes:
  - Texture Class: Sandy loam or loamy sand having no less than 80% sand and no greater than 10% clay.
  - pH range: 5.2-8.0
  - Soluble salts: 500 PPM max
  - Organic matter: 8-20%
  - Phosphorous: Soil P-Index should be between 15-60

2. Trench width for STS under pavement (not in vegetated islands or pervious pavement) shall be width of pipe plus 6" on each side, shall be premium ODOT 304 limestone up to pavement subgrade, and shall include 3-1/2" of 301 asphalt up to pavement grade.



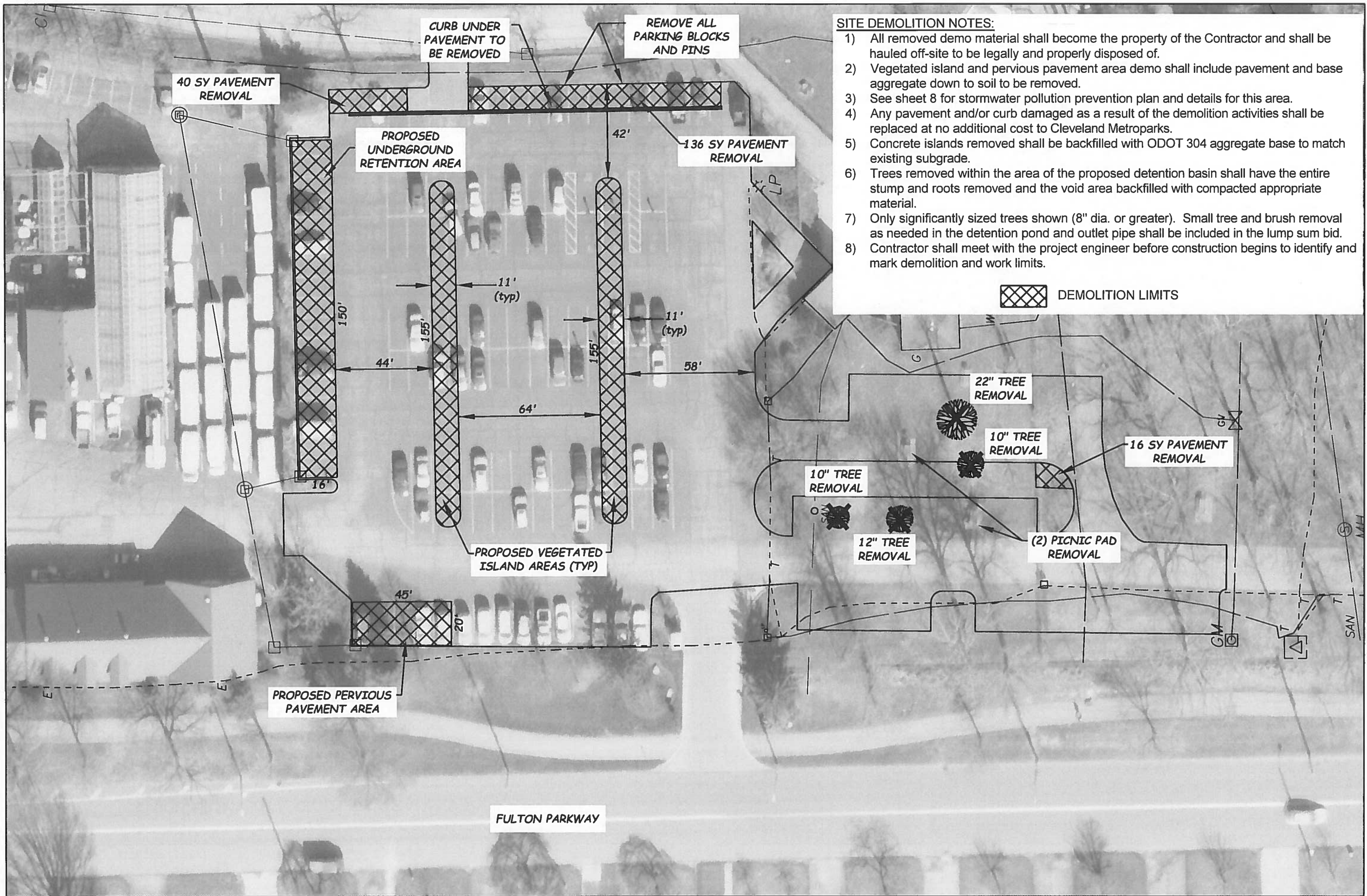
**OUTLET STRUCTURE DETAIL**  
NOT TO SCALE

DESIGNED  
JGR  
DATE  
7/9/18

DETAILS  
ADMINISTRATION PARKING LOT IMPROVEMENTS

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ADMINISTRATION

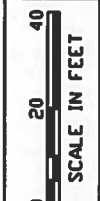




**SITE DEMOLITION NOTES:**

- 1) All removed demo material shall become the property of the Contractor and shall be hauled off-site to be legally and properly disposed of.
- 2) Vegetated island and pervious pavement area demo shall include pavement and base aggregate down to soil to be removed.
- 3) See sheet 8 for stormwater pollution prevention plan and details for this area.
- 4) Any pavement and/or curb damaged as a result of the demolition activities shall be replaced at no additional cost to Cleveland Metroparks.
- 5) Concrete islands removed shall be backfilled with ODOT 304 aggregate base to match existing subgrade.
- 6) Trees removed within the area of the proposed detention basin shall have the entire stump and roots removed and the void area backfilled with compacted appropriate material.
- 7) Only significantly sized trees shown (8" dia. or greater). Small tree and brush removal as needed in the detention pond and outlet pipe shall be included in the lump sum bid.
- 8) Contractor shall meet with the project engineer before construction begins to identify and mark demolition and work limits.

DEMOLITION LIMITS

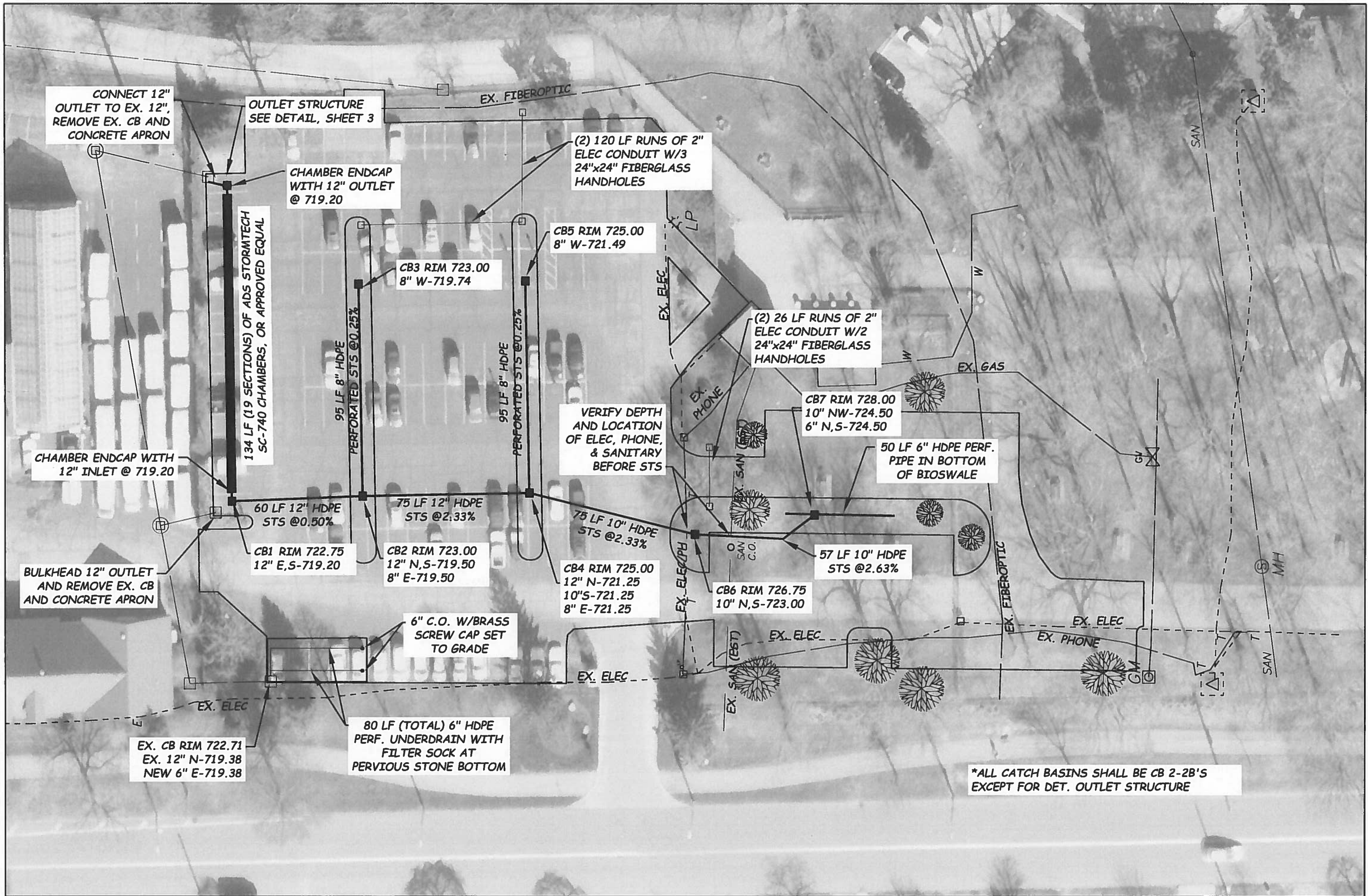


REVISIONS  
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 7/9/18

DEMOLITION PLAN  
 ADMINISTRATION PARKING LOT IMPROVEMENTS

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CONNECT 12" OUTLET TO EX. 12", REMOVE EX. CB AND CONCRETE APRON

OUTLET STRUCTURE SEE DETAIL, SHEET 3

CHAMBER ENDCAP WITH 12" OUTLET @ 719.20

(2) 120 LF RUNS OF 2" ELEC CONDUIT W/3 24"x24" FIBERGLASS HANDHOLES

CB3 RIM 723.00 8" W-719.74

CB5 RIM 725.00 8" W-721.49

(2) 26 LF RUNS OF 2" ELEC CONDUIT W/2 24"x24" FIBERGLASS HANDHOLES

134 LF (19 SECTIONS) OF ADS STORMTECH SC-740 CHAMBERS, OR APPROVED EQUAL

95 LF 8" HDPE PERFORATED STS @ 0.25%

95 LF 8" HDPE PERFORATED STS @ 0.25%

VERIFY DEPTH AND LOCATION OF ELEC, PHONE, & SANITARY BEFORE STS

CB7 RIM 728.00 10" NW-724.50 6" N,S-724.50

50 LF 6" HDPE PERF. PIPE IN BOTTOM OF BIOSWALE

CHAMBER ENDCAP WITH 12" INLET @ 719.20

60 LF 12" HDPE STS @ 0.50%

75 LF 12" HDPE STS @ 2.33%

75 LF 10" HDPE STS @ 2.33%

BULKHEAD 12" OUTLET AND REMOVE EX. CB AND CONCRETE APRON

CB1 RIM 722.75 12" E,S-719.20

CB2 RIM 723.00 12" N,S-719.50 8" E-719.50

CB4 RIM 725.00 12" N-721.25 10"S-721.25 8" E-721.25

57 LF 10" HDPE STS @ 2.63%

CB6 RIM 726.75 10" N,S-723.00

6" C.O. W/BRASS SCREW CAP SET TO GRADE

EX. CB RIM 722.71 EX. 12" N-719.38 NEW 6" E-719.38

80 LF (TOTAL) 6" HDPE PERF. UNDERDRAIN WITH FILTER SOCK AT PERVIOUS STONE BOTTOM

\*ALL CATCH BASINS SHALL BE CB 2-2B'S EXCEPT FOR DET. OUTLET STRUCTURE

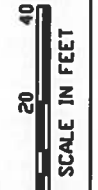
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UTILITY PLAN  
ADMINISTRATION PARKING LOT IMPROVEMENTS

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GRADING PLAN  
ADMINISTRATION PARKING LOT IMPROVEMENTS

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REGRADE FULL DEPTH PVMT  
AREA FOR POSITIVE DRAINAGE  
TOWARDS ISLANDS/CB

REGRADE FULL DEPTH PVMT  
AREA FOR POSITIVE DRAINAGE  
TOWARDS ISLANDS/CB

REGRADE/RESTORE DISTURBED  
AREAS OUTSIDE OF PROP  
PAVEMENT WITH TOPSOIL,  
SEEDING/MULCHING

MAX 2% SLOPE IN ANY  
DIRECTION WITHIN  
ADA PARKING AREAS

REGRADE/RESTORE DISTURBED  
AREAS OUTSIDE OF PROP  
PAVEMENT WITH TOPSOIL,  
SEEDING/MULCHING

SAN. C.O. W/BRASS  
SCREW CAP SET TO  
PVMT GRADE

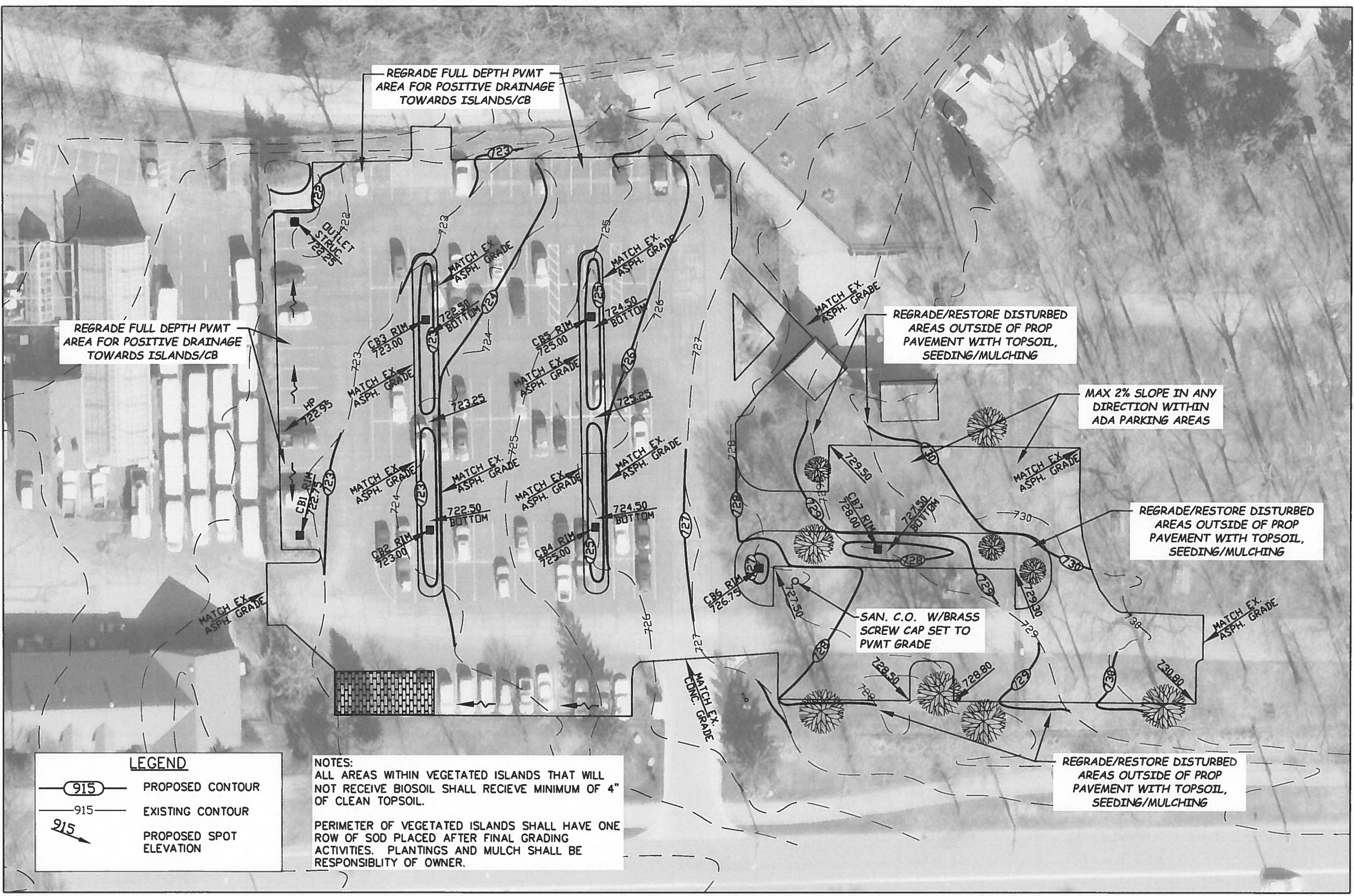
REGRADE/RESTORE DISTURBED  
AREAS OUTSIDE OF PROP  
PAVEMENT WITH TOPSOIL,  
SEEDING/MULCHING

**LEGEND**

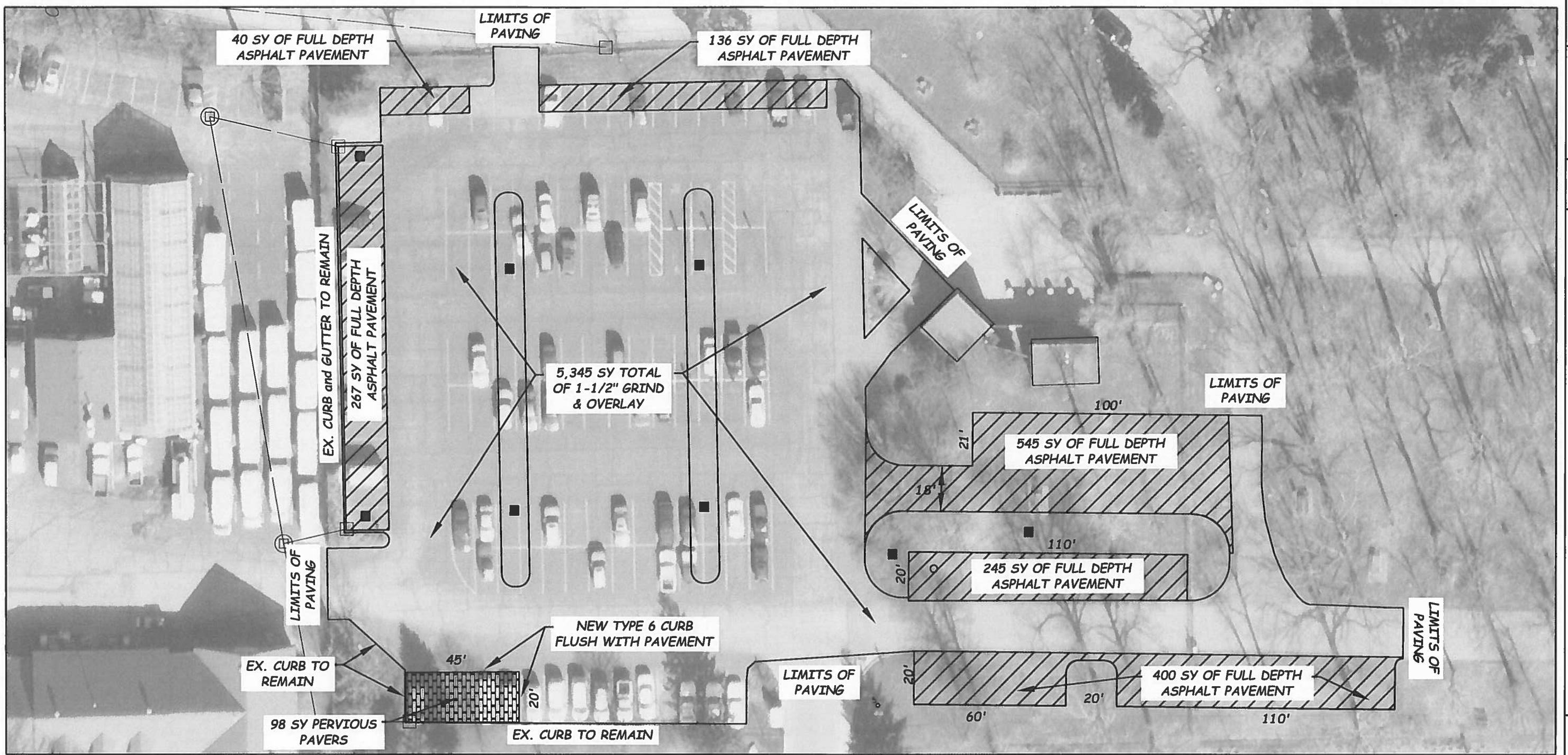
- PROPOSED CONTOUR
- EXISTING CONTOUR
- PROPOSED SPOT ELEVATION

**NOTES:**  
ALL AREAS WITHIN VEGETATED ISLANDS THAT WILL NOT RECEIVE BIOSOIL SHALL RECEIVE MINIMUM OF 4" OF CLEAN TOPSOIL.

PERIMETER OF VEGETATED ISLANDS SHALL HAVE ONE ROW OF SOD PLACED AFTER FINAL GRADING ACTIVITIES. PLANTINGS AND MULCH SHALL BE RESPONSIBILITY OF OWNER.










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JGR  
DATE  
7/9/18

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ASPHALT PAVING PLAN  
ADMINISTRATION PARKING LOT IMPROVEMENTS

ESTIMATED QUANTITIES		
WORK ITEM	S.Y.	TYPICAL DETAIL
1-1/2' GRIND & OVERLAY	5345	1
FULL DEPTH ASPHALT PAVEMENT	1633	2
PERVIOUS PAVERS	100	3
TYPE 6 CONCRETE CURB	65 LF	3

**LEGEND**

-  PROPOSED 1-1/2" GRIND & OVERLAY
-  FULL DEPTH ASPHALT PAVEMENT
-  PERVIOUS PAVERS

**\*CLEVELAND METROPARKS PROVIDES QUANTITIES FOR CONVENIENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL AMOUNT OF QUANTITIES NECESSARY TO COMPLETE THE PROJECT.**

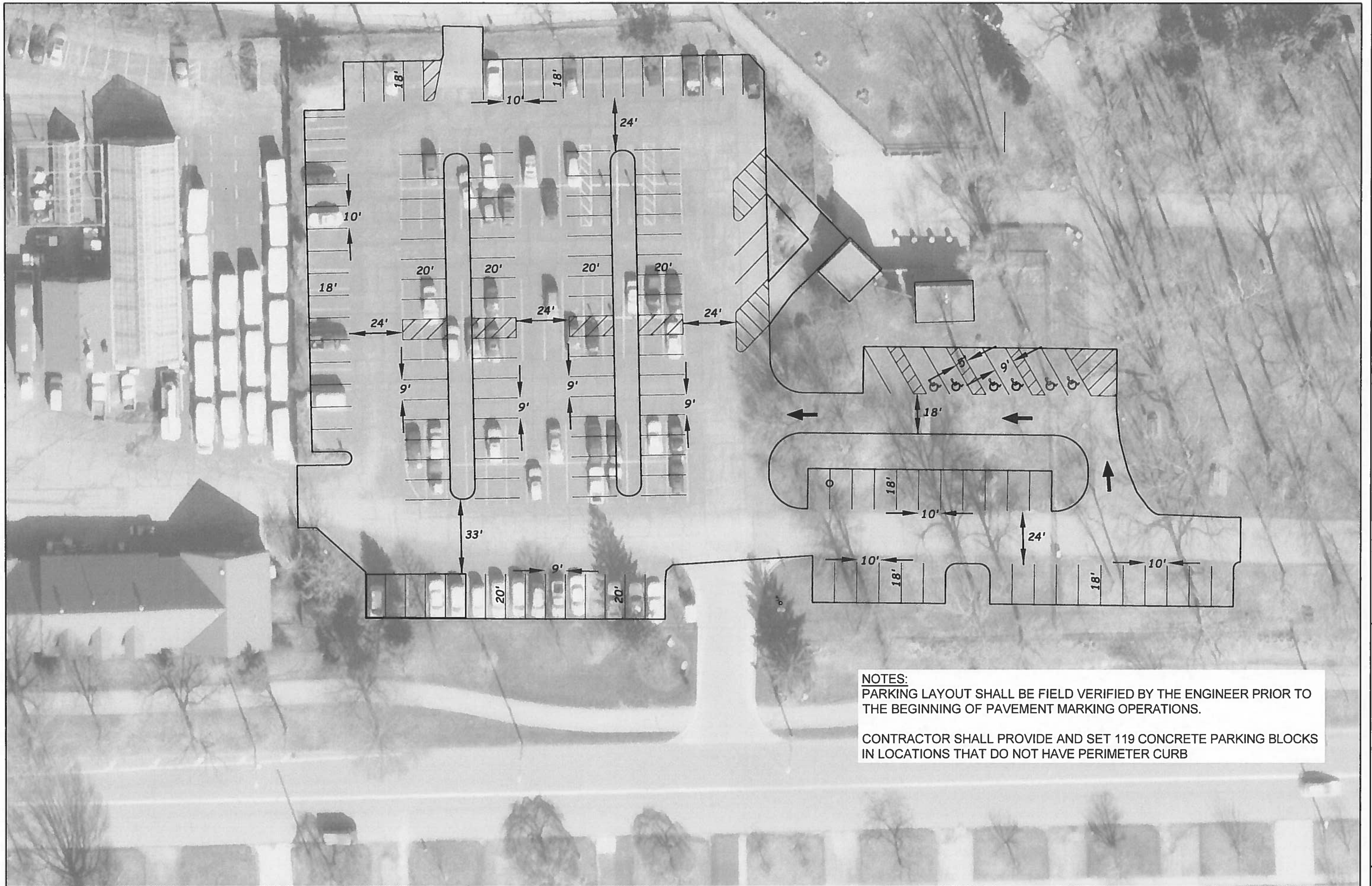
**NOTES:**  
GRIND AND OVERLAY, FULL DEPTH PAVEMENT, PERVIOUS PAVERS, AND CONCRETE CURB LIMITS SHALL BE FIELD MARKED BY THE ENGINEER PRIOR TO THE BEGINNING OF CONSTRUCTION.

THE CONTRACTOR SHALL SET FINAL GRADE SUCH THAT POSITIVE DRAINAGE IS MAINTAINED.

ALL EXISTING ASPHALT PAVEMENT SHALL REMAIN IN PLACE UNTIL ALL UTILITY WORK IS COMPLETE, BIOSOIL IS PLACED, CURBING AND PAVERS ARE INSTALLED, AND VEGETATED ISLAND GRADING IS COMPLETE.

FULL DEPTH PAVEMENT QUANTITIES SHOWN DO NOT INCLUDE FULL DEPTH ASPHALT REQUIRED AS A RESULT OF UTILITY TRENCHING WITH THE EXCEPTION OF THE UNDERGROUND DETENTION AREA.

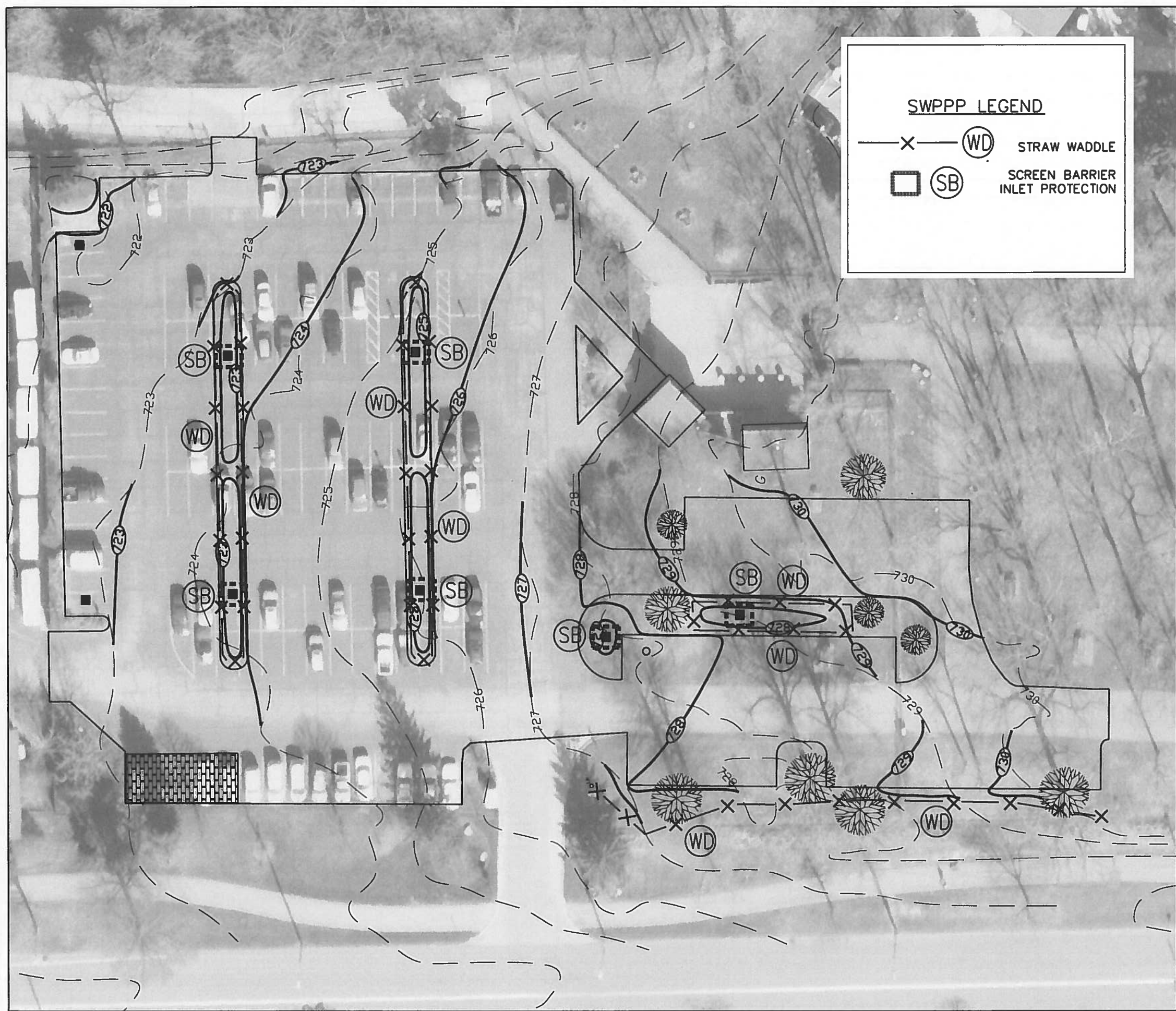




**NOTES:**  
 PARKING LAYOUT SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO THE BEGINNING OF PAVEMENT MARKING OPERATIONS.  
 CONTRACTOR SHALL PROVIDE AND SET 119 CONCRETE PARKING BLOCKS IN LOCATIONS THAT DO NOT HAVE PERIMETER CURB

	
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<b>PARKING PLAN</b> <b>ADMINISTRATION PARKING LOT IMPROVEMENTS</b>	
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**SWPPP LEGEND**

— X — (WD) STRAW WADDLE

□ (SB) SCREEN BARRIER INLET PROTECTION

SITE DESCRIPTION (MARK ONE)			
SUBDIVISION <input type="checkbox"/>	TOTAL AREA 1.67 AC.		
COMMERCIAL <input type="checkbox"/>	AREA TO BE DISTURBED 0.39 AC.		
RESIDENTIAL <input type="checkbox"/>	PRE-DEV. RUNOFF COEFF. 0.90		
P.U.D. <input type="checkbox"/>	POST DEV. RUNOFF COEFF. 0.84		
OTHER (GOVERNMENT) <input checked="" type="checkbox"/>	IMPERVIOUS AREA 1.50 AC.		
	% IMPERVIOUSNESS 89%		
SOIL TYPES	HYDROLOGIC SOIL GROUP		
UeA URBAN LAND-ELNORA COMPLEX	B		
PRIOR LAND USE: PARKING LOT			
SITE LOCATION INFORMATION			
ADMINISTRATION PARKING LOT IMPROVEMENTS			
PROJECT NAME			
CLEVELAND CITY	CUYAHOGA COUNTY	OHIO STATE	44144 ZIP CODE
STORMWATER CONTROL FACILITIES			
LATITUDE 41° 26'43"N		LONGITUDE 81° 43'02"W	
TRIBUTARY STORM SEWER SYSTEM TO BIG CREEK			
NAME OF WATERSHED/IMMEDIATE RECEIVING WATER(S)			

- SEQUENCE EROSION/SEDIMENT CONTROL MEASURES FOR MAJOR CONSTRUCTION OPERATIONS**
- SITE MARKING AND EVALUATION:**
    - MARKING OF VEGETATION AND TREES TO BE PROTECTED
    - MARKING OF LIMITS OF CONSTRUCTION WITH PLASTIC FENCE
  - PREPARE SITE FOR CONSTRUCTION:**
    - SEED ANY BARE AREAS TO BE UNDISTURBED FOR 21 DAYS WITHIN 7 DAYS OF COMPLETION WITH TEMP. SEED MIX NO. 1. ENSURE ALL SEEDING IS MAINTAINED THROUGHOUT ALL DELIVERIES AND CONSTRUCTION ACTIVITIES
    - CONSTRUCT CEMENT TRUCK WASHOUT AND FUELING TANK & DIKE IF REQUIRED
  - SITE STORM SEWER/BIOSWALES:**
    - PIPE, STRUCTURE, AND BIOSWALES INSTALLATION WITH EROSION CONTROL MEASURES
    - SEED ALL BARE AREAS WITHIN 7 DAYS OF ROUGH GRADING
  - PAVEMENT AND PAVERS PREPARATION AND CONSTRUCTION:**
    - RE-HYDROSEED AND MULCH ANY DISTURBED AREAS
  - MAINTAIN EROSION & SEDIMENT CONTROLS DURING CONSTRUCTION:**
    - INSPECT EACH CONTROL WEEKLY AND AFTER EVERY STORM EVENT
    - REPAIR OR REPLACE ANY DAMAGED CONTROL IMMEDIATELY
    - REMOVE ALL SILT FROM ROADWAYS/PAVEMENT AT THE END OF EVERY WORKING DAY
  - FINAL GRADING AND SITE CONSTRUCTION:**
    - MAINTAIN ALL EROSION AND SEDIMENT CONTROLS
    - SPREAD TOPSOIL TO FINAL GRADE
    - FERTILIZE AND LIME TOPSOIL ACCORDING TO THE RECOMMENDATION OF A PROFESSIONAL LANDSCAPE CONTRACTOR
  - PERMANENT LANDSCAPING:**
    - SOD OR PERMANENT SEED BARE AREAS WITHIN 7 DAYS UPON THE COMPLETION OF THE FINAL TOPSOIL SPREADING OPERATIONS
    - INSTALL MATTING IN DITCHES/SWALES AND MULCH NETTING ON SLOPES GREATER THAN 5:1
    - WATER AS NEEDED TO ALLOW SEED TO BECOME ESTABLISHED
  - REMOVE TEMPORARY CONTROLS:**
    - ONCE VEGETATION HAS BECOME ESTABLISHED (70% VEGETATION DENSITY), REMOVE ALL TEMP. EROSION AND SEDIMENT CONTROLS
    - REPAIR ANY DAMAGED AREAS THAT REMAIN

**EROSION CONTROL NOTES:**

1. SEE SILT FENCE DETAILS & NOTES
2. THE CONTRACTOR SHALL TAKE CORRECTIVE ACTIONS REGARDING THE MAINTENANCE OF ALL POLLUTION PREVENTION PRACTICES. EROSION CONTROL MUST BE INSPECTED ONCE EVERY SEVEN DAYS OR WITHIN 24 HOURS OF 0.5" OR GREATER RAINFALL. CONTROL PRACTICES SHALL BE REPAIRED WITHIN 3 DAYS AND SEDIMENT SETTLING PONDS REPAIRED WITHIN 10 DAYS OF THE INSPECTION.
3. ALL PROPOSED SLOPES 5:1 OR GREATER SHALL RECEIVE JUTE OR EXCELSIOR MATTING.
4. OTHER EROSION CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
5. ALL SEEDING AND MULCHING SHALL BE COMPLETED PER ORLD UNLESS OTHERWISE DIRECTED BY THE ENGINEER
6. MINIMIZE OFF-SITE TRACKING OF SEDIMENTS BY VEHICLES BY MAKING USE OF GRAVEL CONSTRUCTION ENTRANCES AND REGULARLY SCHEDULED SWEEPING/GOOD HOUSEKEEPING.
7. BUILDER IS RESPONSIBLE FOR EROSION CONTROL ON INDIVIDUAL LOT.
8. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.
9. DISTURBED AREAS WHICH WILL REMAIN UNWORKED FOR A PERIOD OF 21 DAYS OR MORE SHALL BE STABILIZED WITH SEEDING AND MULCHING WITHIN 7 DAYS OF EARTHMOVING.
10. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST CONFORM TO THE SPECIFICATIONS OF RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARDS FOR STORMWATER MANAGEMENT, LAND DEVELOPMENT, AND URBAN STREAM PREVENTION (ORLD).
11. CONTRACTOR MUST INSTALL PERIMETER SEDIMENT BARRIERS AND SEDIMENT TRAPS PRIOR TO INITIAL EARTH DISTURBANCE (TOP SOIL REMOVAL, GRUBBING, ETC.) BARRIER LOCATIONS MAY REQUIRE MODIFICATION AFTER ON-SITE EVALUATION BY DISTRICT STAFF, WHICH WILL BE DOCUMENTED IN INSPECTION REPORTS TO THE CITY.
12. SOIL STOCKPILES RESULTING FROM EXCAVATION REQUIRE EITHER A SEDIMENT BARRIER AROUND THE BASE OF THE PILE OR OTHER BARRIERS ON SITE (SECTION 3.04C) MUST CONTAIN RUNOFF.
13. THE CONTRACTOR MUST USE A STABILIZED CONSTRUCTION ENTRANCE AND MUST LIMIT SEDIMENT TRACKING INTO CITY STREETS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTAINING ALL SILT ON-SITE. DAMAGE DUE TO OFF-SITE/DOWNSTREAM SILTATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
15. EROSION CONTROL BLANKETS WITH MATTING WILL BE USED ON DITCHES GREATER THAN 1.5% AND ALL OTHER SLOPES GREATER THAN 5:1 GRADE.
16. NO SEDIMENT LADEN DISCHARGES ARE PERMITTED TO SURFACE WATER. PUMPING OF TRENCHES OR GROUND WATER CONTAINING SEDIMENT MUST PASS THROUGH THE SEDIMENT SETTLING POND.

**SWCD NOTES:**

1. MINIMIZE TRACKING OF SEDIMENTS BY VEHICLES BY UTILIZING THE CONSTRUCTION ENTRANCE AS THE ONLY ENTRANCE FOR VEHICLES. MAINTAIN THIS ENTRANCE WITH STONE AS NEEDED TO PREVENT DIRT AND MUD FROM TRACKING ONTO THE ROADWAY. REGULAR SWEEPING OF THE ROADWAY MAY BE NECESSARY TO ENSURE ROADWAY DOES NOT BUILD UP WITH SEDIMENTS
2. THE CONTRACTOR MUST PROVIDE REGULAR INSPECTION AND MAINTENANCE FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES. PERMANENT RECORDS OF ALL MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTION MUST BE MADE A MINIMUM OF ONCE EVERY SEVEN DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN WITHIN A 24-HOUR PERIOD. THE NAME OF CONTRACTOR'S DESIGNATED INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTIONS, AND CORRECTIVE MEASURES TAKEN MUST BE NOTED ON ALL INSPECTIONS.
3. OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS AND MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER.
4. SEDIMENT PONDS AND EROSION AND SEDIMENT CONTROLS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN DAYS FROM THE START OF GRUBBING. UPON COMPLETION OF CONSTRUCTION OF PONDS, SEEDING AND MULCHING AND THE PLACEMENT OF THE JUTE MATTING SHALL IMMEDIATELY FOLLOW TO AID IN THE STABILIZATION AND MINIMIZE EROSION AND SEDIMENT TRANSPORT OF THE SOIL BEFORE WATER LEAVES THE POND. ALL EROSION AND SEDIMENT CONTROLS SHALL CONTINUE TO FUNCTION UNTIL DISTURBED AREAS ARE RESTABILIZED
5. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF (INCLUDING WASHING OUT OF CEMENT TRUCKS). DESIGNATED WASH PIT AREAS ARE SHOWN ON THE PLANS AND ARE PRESET FOR THIS PURPOSE AWAY FROM AREAS OF STORM WATER RUNOFF.
6. SITE STABILIZATION EITHER PERMANENT OR TEMPORARY MUST FOLLOW THE REQUIREMENTS AS APPLICABLE ON THE FOLLOWING TABLES:

**TEMPORARY STABILIZATION**

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREA WITHIN 50 FEET OF A WATERCOURSE AND NOT AT FINAL GRADE.	WITHIN 2 DAYS OF THE MOST RECENT DISTURBANCE, IF THAT AREA WILL REMAIN IDLE FOR MORE THAN 21 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREA, INCLUDING SOIL STOCKPILES, THAT WILL BE DORMANT FOR MORE THAN 21 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A WATERCOURSE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE ARE.
DISTURBED AREAS THAT WILL BE IDLE OVER THE WINTER.	PRIOR TO NOVEMBER 1.

**PERMANENT STABILIZATION**

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREA THAT WILL LIE DORMANT FOR ONE YEAR OR MORE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE.
ANY AREA WITHIN 50 FEET OF WATERCOURSE AND AT FINAL GRADE.	WITHIN 2 DAYS OF REACHING FINAL GRADE.
ANY AREA AT FINAL GRADE.	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.

**TEMPORARY SEEDING & MULCHING (SEED MIX NO. 1):**

TEMPORARY SEEDING SHALL BE APPLIED WITHIN SEVEN (7) DAYS ON ALL BARE AREAS THAT WILL NOT BE DISTURBED FOR 21 DAYS.  
 -PERENNIAL RYE GRASS=2 LBS./1000 S.F.  
 -COMMERCIAL FERTILIZER SHALL BE (12-12-12) AND CONFORMS TO ORLD=10 LBS./1000 S.F.  
 -MULCH STRAW=2 TONS/ACRE  
 ALL TEMPORARY SEEDING ITEMS & PROCEDURES SHALL CONFORM TO ORLD UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

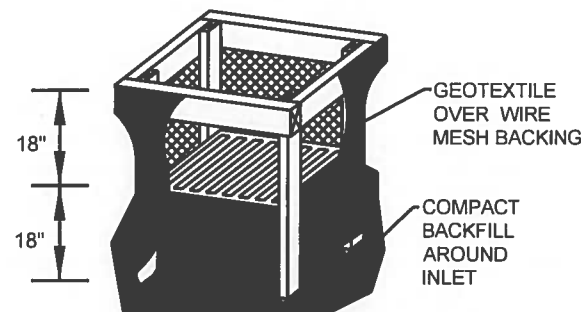
**PERMANENT SEEDING AND MULCHING (SEED MIX NO. 2):**

SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY SEEDING AND MULCHING IMMEDIATELY UPON COMPLETION OF EXCAVATION OR FILL AND FINISHED GRADING IN ACCORDANCE WITH ORLD OR AS DIRECTED BY THE CITY ENGINEER. THE FOLLOWING MIXTURES SHALL BE USED FOR SEEDING IN ACCORDANCE WITH ORLD:  
 -KENTUCKY BLUEGRASS=40%  
 -CREEPING RED FESCUE=40%  
 -PERENNIAL RYEGRASS=20%  
 -FERTILIZER=12 LBS./1000 S.F. (12-12-12)  
 -MULCH STRAW=2 TONS/ACRE  
 RESTORATION OF ALL DISTURBED AREAS SHALL IMMEDIATELY FOLLOW EXCAVATION AND GRADING OPERATIONS. DELAY IN RESTORATION SHALL NECESSITATE TEMPORARY EROSION CONTROL MEASURES APPROVED BY THE ENGINEER AND AT THE CONTRACTOR'S COST.

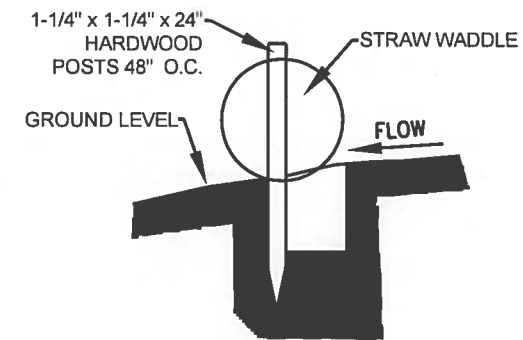
<b>INSPECTION AND MAINTENANCE SCHEDULE POST-CONSTRUCTION CONTROLS</b>	
FREQUENCY	ACTIVITY
MONTHLY	-MOW EMBANKMENT OF POND AND CLEAN TRASH AND DEBRIS FROM OUTLET STRUCTURES. -ADDRESS ANY ACCUMULATIONS OF HYDROCARBONS.
BI-ANNUALLY	-INSPECT EMBANKMENT AND INLET/OUTLET STRUCTURE(S) FOR DAMAGE AND PROPER FLOW. -REMOVE WOODY VEGETATION AND FIX ANY ERODING AREAS. -MONITOR SEDIMENT ACCUMULATIONS IN POND. -INSPECT AND CLEAN DRAINAGE STRUCTURES.
3-7 YEARS	-MONITOR ACCUMULATED SEDIMENT IN POND.
15-20 YEARS	-CLEAN-OUT SEDIMENT ACCUMULATIONS IN POND AS PONDS VOLUME IS SIGNIFICANTLY REDUCED.

**MAINTENANCE FOR STRUCTURAL POST CONSTRUCTION CONTROLS**

1. THE STRUCTURES ARE TO BE INSPECTED AFTER A MAJOR STORM EVENT OF 3" OF RAIN OR MORE AND TWICE PER YEAR ON THE FOLLOWING DATES:  
 -MAY 1ST OF EVERY YEAR  
 -NOVEMBER 1ST OF EVERY YEAR
2. THE OWNER OF THE FACILITY WILL BE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF THE STRUCTURES AND TO PAY FOR ANY MAINTENANCE OR IMPROVEMENTS WHICH MAY BE REQUIRED.
3. INSPECTION AND MAINTENANCE SHALL BE MADE IN ACCORDANCE WITH THE INSPECTION AND MAINTENANCE SCHEDULE SHOWN ON THIS SHEET.



**SCREEN BARRIER**  
NOT TO SCALE



**WADDLE DETAIL**  
(TYPICAL CROSS SECTION)

STORMWATER POLLUTION NOTES AND DETAILS  
 ADMINISTRATION PARKING LOT IMPROVEMENTS

CLEVELAND METROPARKS  
 CLEVELAND METROPARKS ADMINISTRATION

DESIGNED  
 JDR  
 DATE  
 7/9/18