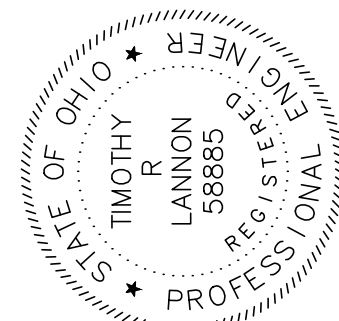


CITY OF WILLOWICK

MANRY PARK EXERCISE TRAIL IMPROVEMENTS PROJECT



DATE	REVISION	NO	BID SET	ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
			12/19/2019		AS NOTED	RDS	RDS	RDS	CEC

CITY OF WILLOWICK	WILLOWICK, OHIO
MANRY PARK EXERCISE TRAIL IMPROVEMENTS PROJECT	
LAKE COUNTY	GENERAL - 00 SERIES COVER SHEET

PROJECT NO.	19023301
DISCIPLINE	GENERAL
SHEET NAME	00G-01
SHEET	1
OF	12

CITY COUNCIL:

BOB PATTON	COUNCIL PRESIDENT
MICHAEL VANNI	WARD 1
MONICA KOUDELA	WARD 1
ANN TURK	WARD 2
KEN PINTAR	WARD 2
CHARLIE MALTA	WARD 3
BOB REHO	WARD 3



OHIO 811 DESIGN SERIAL NUMBER & UTILITY LIST:

#B922800551-00B # B922800551-01B #B924600595-00B - ARNOLD ROAD

LAKE COUNTY DEPARTMENT OF UTILITIES (SEWER)
RANDY ROTHLSBERGER
105 MAIN STREET
PAINESVILLE, OHIO 44077
(440) 350-2645 PHONE
(440) 350-2666 FAX

AT&T/OHIO (COMMUNICATIONS)
JAMES JANIS
13630 LORAIN AVENUE, 2ND FLOOR
CLEVELAND, OH 44111
(216) 476-6142 PHONE
(216) 476-6013 FAX
Pj8191@att.com

THE ILLUMINATING COMPANY (ELECTRIC)
JOHN ZASSICK
PUBLIC WORKS COORDINATOR
6896 MILLER ROAD
BRECKSVILLE, OH 44141
(440) 546-8706 PHONE
jnzassick@firstenergycorp.com

CHARTER COMMUNICATIONS (CABLE)
MATHEW HANNAH
CONSTRUCTION COORDINATOR
7820 DIVISION DRIVE
MENTOR, OH 44060
(216) 575-8016 EXT. 1-216-555-1105 PHONE
(440) 655-5590 CELL
Mathew.hannah@charter.com

DOMINION EAST OHIO (GAS)
KEVIN BIRT
ATTN: 2ND FLOOR RELOCATION DESIGN
320 SPRINGSIDE DRIVE, STE. 320
AKRON, OH 44333
(330) 664-2409 PHONE
(888) 504-0126 FAX
relocation@dominionenergy.com

- UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
- THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.

LAKE COUNTY, OHIO

DECEMBER 2019

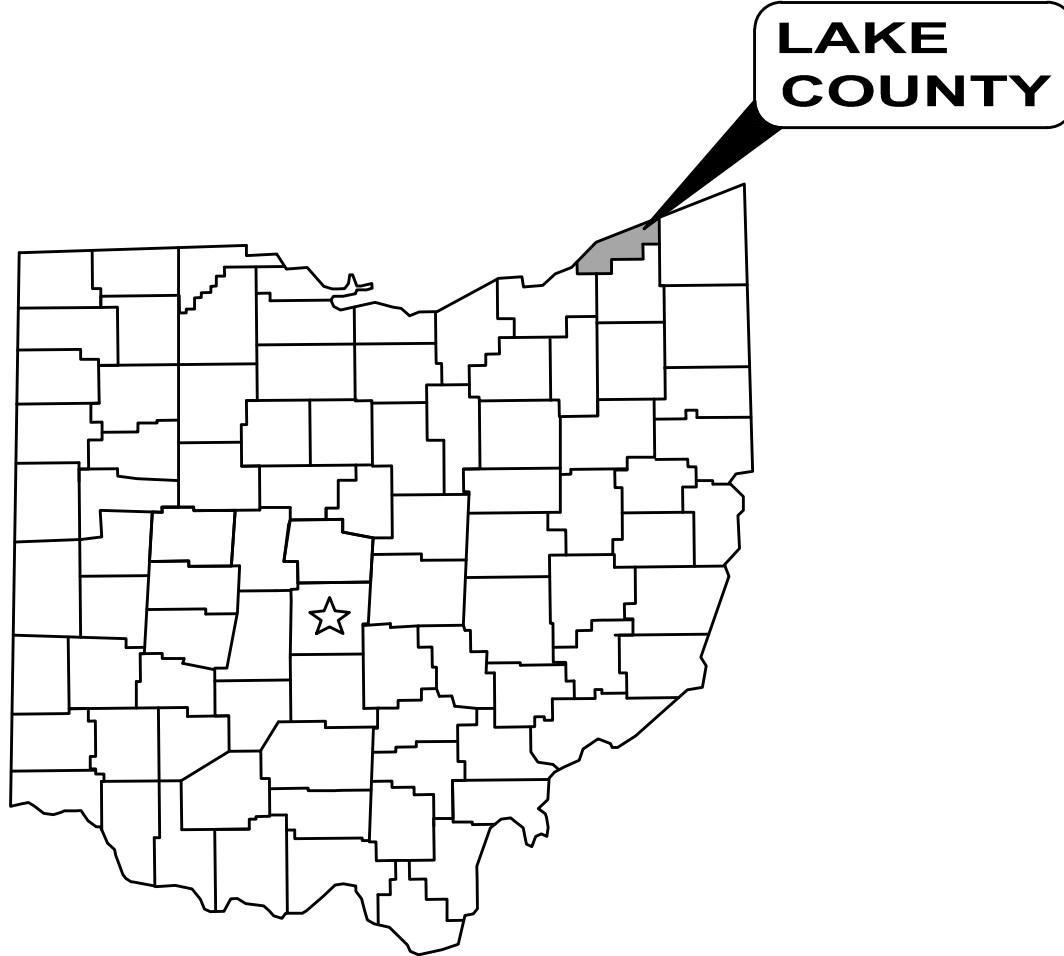


LOCATION MAP

NOT TO SCALE



ENGINEER'S PROJECT No. 19023301



MAYOR:

RICHARD J. REGOVICH MAYOR / SAFETY DIRECTOR

OFFICE:

CITY HALL
30435 LAKE SHORE BLVD.
WILLOWICK, OH 44095
(440) 585-3700 PHONE

DEPARTMENTS:

RECREATION DEPARTMENT
30100 ARNOLD DRIVE
WILLOWICK, OH 44095

JULIE KLESS, RECREATION DIRECTOR
(440) 516-3011 PHONE

ENGINEER:

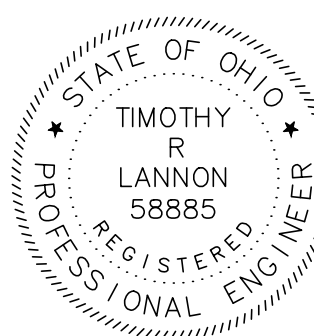
CT CONSULTANTS, INC.
8150 STERLING COURT
MENTOR, OH 44060

(440) 951-9000 PHONE
(440) 951-7487 FAX

PROJECT SITE:

THE PROJECT IS LOCATED IN MANRY PARK AT 30100 ARNOLD DRIVE AND IS BEHIND THE BALL FIELDS AT THE NORTHWEST CORNER OF THE PARK


TIMOTHY R. LANNON P.E.



P.E. 58885

DATE

SERIES INFORMATION:

SERIES No:	DESCRIPTION:
00	GENERAL
01	SITE IMPROVEMENTS
10	CONSTRUCTION DETAILS
SWP3	STORM WATER POLLUTION PREVENTION PLAN

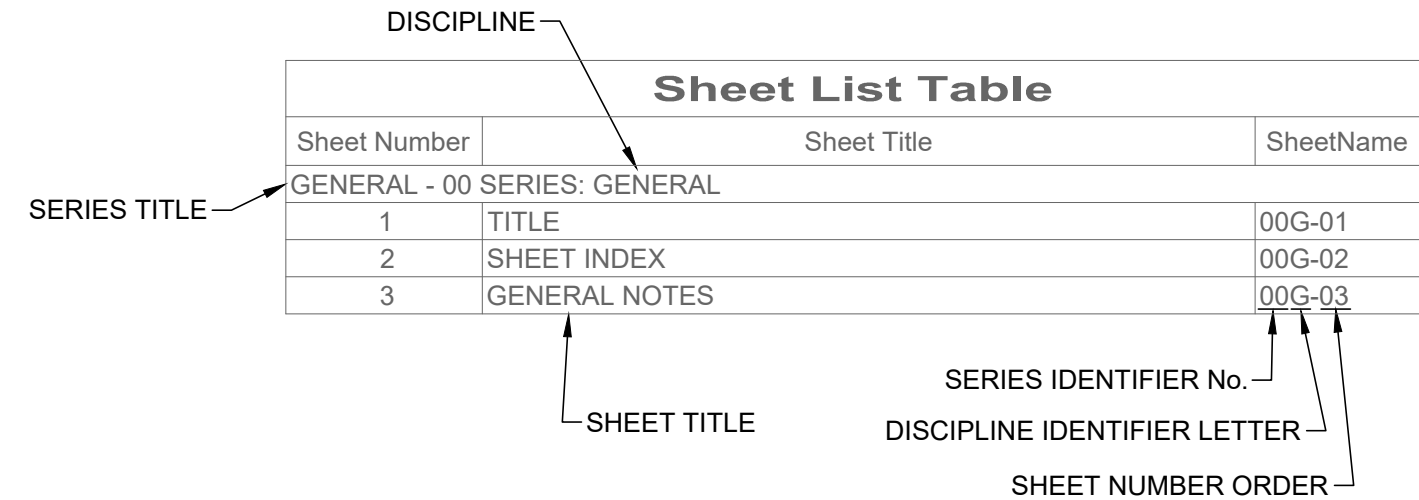
DISCIPLINE INFORMATION:

IDENTIFIER:	DISCIPLINE:
G	GENERAL
C	CIVIL
S	STRUCTURAL
A	ARCHITECTURAL
D	PROCESS
M	MECHANICAL (PLUMBING & HVAC)
E	ELECTRICAL
Y	INSTRUMENTATION

GENERAL ABBREVIATIONS:

AR	AIR RELEASE VALVE	MV	MUD VALVE
AV	AIR & VACUUM VALVE	N	NORTHING
BA	BALL VALVE	OH	OVERHEAD
BFV	BUTTERFLY VALVE	PD	PLUG DRAIN VALVE
BK	BACKPRESSURE VALVE	PF	PRESSURE RELIEF
BM	BENCH MARK	PG	PRESSURE REGULATOR
BP	BACKFLOW PREVENTER	PI	PINCH VALVE
CB	CATCH BASIN	PR	PROPOSED
CL	CENTER LINE	PRV	PRESSURE REDUCING VALVE
CO	CONE VALVE	PT	PRESSURE TEMPERATURE RELIEF
CPP	CORRUGATED PLASTIC PIPE	PV	PLUG VALVE
CV	CHECK VALVE	PVC	POLYVINYL CHLORIDE PIPE
DIP	DUCTILE IRON PIPE	R/W	RIGHT OF WAY
E	EASTING	RJ	RESTRAINED JOINT
EG	EXISTING GRADE	SAN	SANITARY
EL	ELEVATION	SCH	SCHEDULE
EX	EXISTING	SB	SOIL BORING
FG	FINISHED GRADE	SDR	STANDARD DIAMETER RATIO
FH	FIRE HYDRANT	SS	STAINLESS STEEL
FL	FLANGED	STA	STATION
FRP	FIBERGLASS REINFORCED PLASTIC	STL	STEEL PIPE
FTG	FITTING	STM	STORM
GL	GLOBE VALVE	SU	SURGE VALVE
GS	GALVANIZED STEEL	SV	SOLENOID VALVE
GV	GATE VALVE	TYP	TYPICAL
HDPE	HIGH-DENSITY POLYETHYLENE PIPE	UG	UNDERGROUND
KG	KNIFE GATE VALVE	VB	VALVE BOX
KN	KNIFE VALVE	WAT	WATER
MH	MANHOLE	WV	WATER VALVE
MIN	MINIMUM		
MJ	MECHANICAL JOINT		

INDEX EXPLANATION:



GENERAL SYMBOLOLOGY NOTES:

- THIS IS A STANDARD SHEET SHOWING COMMONLY USED SYMBOLOLOGY.
- ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
- SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE NEW IMPROVEMENTS SO AS TO HIGHLIGHT SPECIFIC TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.
- SYMBOLOLOGY OR DIAGRAMMATICAL LEGENDS MAY BE SHOWN ON INDIVIDUAL SHEETS FOR SCHEDULES, DIAGRAMS, DETAILS, SCHEMATICS OR EQUIPMENT.

DRAWING CODED NOTE TYPES:

- CT CONTRACTUAL NOTES ARE DEPICTED WITH A HEXAGON, SQUARE, CIRCLE OR TRIANGLE. ALL OTHER EXISTING WRITTEN CALLOUTS SHOWN ON THE REUSED SCANNED PLANS, SECTIONS & DETAILS ARE FOR EXISTING CONDITIONS AND REFERENCE ONLY, MANY OF THOSE NOTES FROM THE SCANNED DRAWINGS PERTAIN TO PREVIOUS WORK DONE.

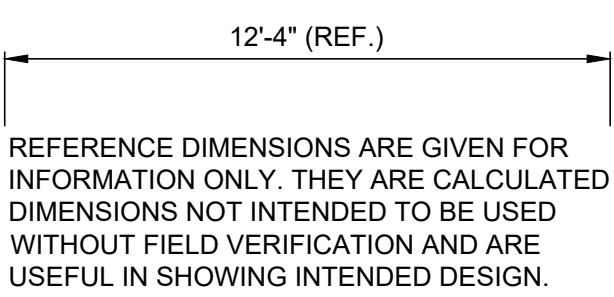
PLAN REVISIONS:

A	REVISION DESCRIPTION
B	REVISION DESCRIPTION

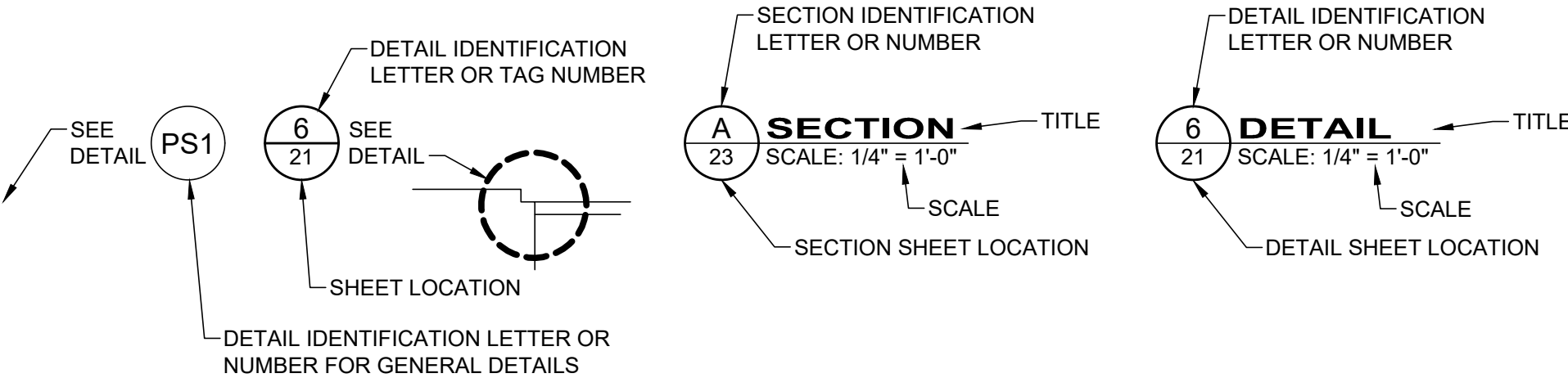
DEMOLITION CODED NOTES:

1	DEMOLITION DESCRIPTION
2	DEMOLITION DESCRIPTION

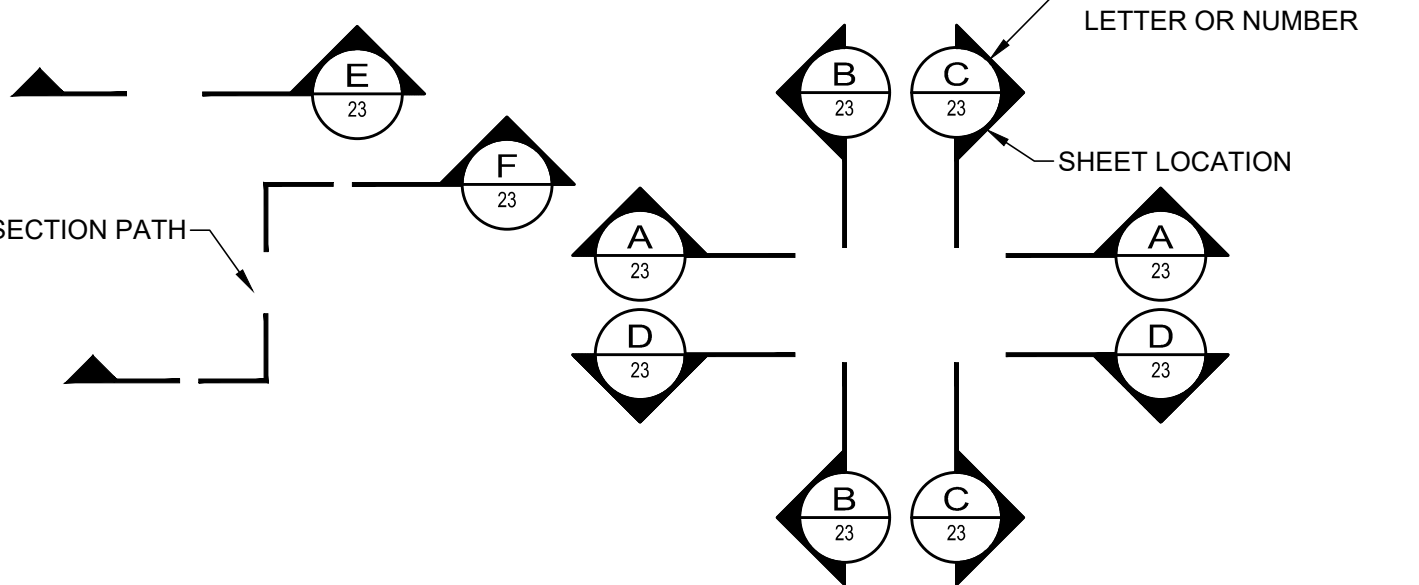
REFERENCE DIMENSION:



DETAIL REFERENCES:



MAJOR SECTION CUT CONVENTIONS:



GENERAL MATERIAL HATCHES:

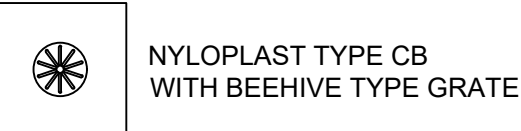
[Hatch]	EXISTING ROADWAY (PLAN)
[Hatch]	PROPOSED ROADWAY (PLAN) - GENERAL
[Hatch]	PROPOSED ROADWAY (PLAN) - CONCRETE
[Hatch]	PROPOSED ROADWAY (PLAN) - PAVEMENT
[Hatch]	EXISTING BUILDING (PLAN)
[Hatch]	PROPOSED RIP RAP AREA (PLAN / SECTION)
[Hatch]	PROPOSED GRAVEL DRIVE AREA (PLAN / SECTION)
[Hatch]	PROPOSED CONCRETE DRIVE AREA (PLAN)
[Hatch]	EXISTING EARTHEN MATERIAL (SECTION / ELEVATION)
[Hatch]	PROPOSED EARTHEN MATERIAL (SECTION / ELEVATION)
[Hatch]	CONCRETE (PLAN / SECTION / ELEVATION)
[Hatch]	PRECAST CONCRETE (PLAN / SECTION / ELEVATION)
[Hatch]	GROUT (PLAN / SECTION / ELEVATION)
[Hatch]	GRATING (PLAN)
[Hatch]	GRATING (SECTION)
[Hatch]	METAL OR STEEL (SECTION)
[Hatch]	DENOTES ITEM OR AREA FOR DEMOLITION

SITE SYMBOL LEGEND:

EX:	PR:
[Symbol]	[Symbol] POST, MAILBOX
[Symbol]	[Symbol] POST, SIGN
[Symbol]	[Symbol] POST, SIGN - DOUBLE
[Symbol]	[Symbol] POST, SIGN - DUAL
[Symbol]	[Symbol] GEOTECH - SOIL BORING
[Symbol]	[Symbol] BUSH
[Symbol]	[Symbol] TREE, DECIDUOUS
[Symbol]	[Symbol] TREE, EVERGREEN
[Symbol]	[Symbol] TREE, STUMP
[Symbol]	[Symbol] NAIL - MAG
[Symbol]	[Symbol] PIN - IRON
[Symbol]	[Symbol] PIPE - IRON
[Symbol]	[Symbol] SPIKE
[Symbol]	[Symbol] GAS METER
[Symbol]	[Symbol] GAS VALVE
[Symbol]	[Symbol] GAS VENT
[Symbol]	[Symbol] POLE - ELECTRIC (POWER)
[Symbol]	[Symbol] POLE - GENERAL
[Symbol]	[Symbol] POLE - GUY
[Symbol]	[Symbol] POLE - GUY ANCHOR
[Symbol]	[Symbol] POLE - LIGHT
[Symbol]	[Symbol] SANITARY CLEAN-OUT
[Symbol]	[Symbol] SANITARY MANHOLE - 48"
[Symbol]	[Symbol] SANITARY VENT
[Symbol]	[Symbol] CATCH BASIN - 2X2
[Symbol]	[Symbol] CURB INLET - 2X3
[Symbol]	[Symbol] STORM CLEAN-OUT
[Symbol]	[Symbol] STORM DRAIN
[Symbol]	[Symbol] STORM MANHOLE
[Symbol]	[Symbol] WATER HYDRANT, FDC
[Symbol]	[Symbol] WATER HYDRANT, FIRE
[Symbol]	[Symbol] WATER VALVE W/TEXT

SITE LINE LEGEND:

EX:		
[Symbol]	[Symbol]	RIGHT-OF-WAY
[Symbol]	[Symbol]	BUILDING OUTLINES
[Symbol]	[Symbol]	CONTOURS - MAJOR
[Symbol]	[Symbol]	CONTOURS - MINOR
[Symbol]	[Symbol]	SLOPE LINE
[Symbol]	[Symbol]	SLOPE - BREAKLINE
[Symbol]	[Symbol]	SLOPE - TOP
[Symbol]	[Symbol]	SLOPE - TOE
[Symbol]	[Symbol]	WATER CENTERLINE
[Symbol]	[Symbol]	WATER EDGE
[Symbol]	[Symbol]	EDGE OF ROAD
[Symbol]	[Symbol]	FENCE - GENERAL
[Symbol]	[Symbol]	FENCE - CHAIN LINK
[Symbol]	[Symbol]	GUIDE RAIL
[Symbol]	[Symbol]	TREE LINE
[Symbol]	[Symbol]	ELEC
[Symbol]	[Symbol]	ELEC-OH
[Symbol]	[Symbol]	ELEC-UG
[Symbol]	[Symbol]	GAS
[Symbol]	[Symbol]	GS
[Symbol]	[Symbol]	SAN
[Symbol]	[Symbol]	STM
[Symbol]	[Symbol]	WAT
[Symbol]	[Symbol]	WS
PR:		
[Symbol]	[Symbol]	STORM SEWER LINE
[Symbol]	[Symbol]	EDGE OF PAVEMENT
[Symbol]	[Symbol]	CENTERLINE
[Symbol]	[Symbol]	EASEMENT LINE - PERMANENT
[Symbol]	[Symbol]	EASEMENT - TEMPORARY
[Symbol]	[Symbol]	WORK LIMITS
[Symbol]	[Symbol]	DEMO - HASH
[Symbol]	[Symbol]	DEMO - "X"



NYLOPLAST TYPE CB
WITH BEEHIVE TYPE GRATE



ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
BID SET	12/19/2019	AS NOTED	RDS	RDS	CEC
NO					
REVISION					
DATE					

CITY OF WILLOWICK	WILLOWICK, OHIO
MANNY PARK EXERCISE TRAIL IMPROVEMENTS PROJECT	
LAKE COUNTY	GENERAL - 00 SERIES
	SYMBOLOLOGY & SHEET INDEX

PROJECT NO.	19023301
DISCIPLINE	GENERAL
SHEET NAME	00G-02
SHEET	OF
2	12

GENERAL:

1. ANY REVISIONS TO THE ACCEPTED CONSTRUCTION PLANS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT AND SHALL NOTIFY THE ENGINEER, IN WRITING, OF ANY DISCREPANCIES.
3. NO WORK SHALL COMMENCE WITHOUT AN EXECUTED NOTICE TO PROCEED.
4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH OSHA SAFETY REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL VISITORS, EMPLOYEES AND WORKERS ON THE CONSTRUCTION SITE.
5. THE CONTRACTOR SHALL CONSTRUCT THIS PROJECT IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL BUILDING CODES.
5. ALL EXCAVATIONS ARE TO BE SECURED AND PROTECTED AT ALL TIMES.
6. ALL SEDIMENT AND EROSION CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
7. ALL POLLUTANTS OTHER THAN SEDIMENT THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND LEGALLY DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORM OR SURFACE WATERS. POLLUTANTS OF CONCERN INCLUDE, BUT ARE NOT LIMITED TO, FUELS, LUBRICANTS, SOLVENTS, CONCRETE BY-PRODUCTS AND CONSTRUCTION MATERIALS.
8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SECURITY OF ALL STORED MATERIALS.
9. AS BUILT RECORDS - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A SET OF PROJECT RECORD DOCUMENTS. THESE DOCUMENTS SHALL INCLUDE REVIEWED SHOP DRAWINGS, CHANGE ORDERS, EQUIPMENT OPERATING INSTRUCTIONS, FIELD TEST RECORDS, AND AS BUILT DRAWINGS. THE AS BUILT DRAWINGS SHALL BE MARKED LEGIBLY IN RED WITH THE ACTUAL LOCATION OF EQUIPMENT AND CONDUITS AS CONSTRUCTED. ALL EQUIPMENT AND UNDERGROUND CONDUITS INSTALLED SHALL HAVE LOCATIONS MARKED IN DISTANCE OFF A LANDMARK AT LEAST EVERY 25 FEET AND AS NECESSARY AT BENDS FOR LOCATION OF A LATER DATE. FINAL DOCUMENTS AND PLANS SHALL BE DELIVERED TO THE OWNER.

UNDERGROUND UTILITIES:

1. THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. THE OWNER NOR THE ENGINEER ENSURES THEIR ACCURACY OR COMPLETENESS.
2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL PUBLIC AND PRIVATE UTILITIES WHICH MAY BE AFFECTED BY THE CONSTRUCTION. THE LOCATION OF UTILITIES AND STRUCTURES, BOTH SURFACE AND SUBSURFACE, ARE SHOWN ON THE DRAWINGS FROM DATA AVAILABLE AT THE TIMES OF SURVEY AND ARE NOT NECESSARILY COMPLETE OR CORRECT. THE EXACT LOCATION AND PROTECTION OF UTILITIES AND STRUCTURES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST THREE WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, PRIOR TO CONSTRUCTION TO HAVE UTILITIES STAKED, MARKED OR OTHERWISE DESIGNATED IN THE CONSTRUCTION AREA IN SUCH A MANNER OR LOCATING SHALL BE COORDINATED TO STAY 48 HOURS AHEAD OF THE PLANNED CONSTRUCTION.
4. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF THE UTILITY OR STRUCTURE AND ITS EFFECT ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE UTILITY OWNER.
5. OSHA STANDARDS PROHIBIT CRANE OR BACKHOE OPERATIONS WITHIN TEN (10) FEET OF ENERGIZED PRIMARY CONDUCTORS. TEMPORARY RELOCATION OF ELECTRICAL UTILITIES, INCLUDING RESTRAINT POLES, RELOCATION OF POLES AND RUBBER COVERING OF ENERGIZED CONDUCTORS MAY BE REQUIRED. THE COORDINATION AND COST OF THESE SERVICES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MAY RESTRAIN POLES IF THE METHOD OF SUPPORT HAS BEEN SUBMITTED TO AND APPROVED BY THE UTILITY OWNER.

EXISTING UTILITIES:

1. THE LOCATIONS OF THE UNDERGROUND UTILITIES ARE PLOTTED ACCORDING TO THE INFORMATION FURNISHED BY THE UTILITIES CONCERNED AND THE OWNER DOES NOT GUARANTEE THE ACCURACY THEREOF. CONTRACTOR TO CALL OUPS (1-800-362-2764) "48 HOURS BEFORE YOU DIG" AND CALL OIL & GAS PRODUCERS PROTECTIVE (1-800-925-0988). CONTRACTOR ALSO TO COORDINATE HIS WORK WITH THE UTILITIES LISTED ON THIS SHEET.
2. IN THE EVENT OF DAMAGE TO EXISTING PUBLIC AND/OR PRIVATE UTILITIES, THE AGENCY CONCERNED SHALL BE NOTIFIED IMMEDIATELY AND ALL REPAIR WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE AGENCY AT NO ADDITIONAL EXPENSE TO THE OWNER INCLUDING ANY INSPECTION FEES OR MAINTENANCE CREWS. CABLE (CEI, AT&T & TV) RELOCATION AND SUPPORT COST SHALL BE INCLUDED IN OTHER BID ITEMS.
3. WHERE EXISTING POWER OR TELEPHONE POLES ARE IN CLOSE PROXIMITY TO WORK, THE CONTRACTOR SHALL COORDINATE HIS WORK EFFORTS WITH THOSE OF THE UTILITY COMPANIES SUCH THAT THEIR EXISTING FACILITIES CAN BE MAINTAINED AND PROTECTED DURING THE TIME WORK IS GOING ON ADJACENT TO THE POLE. THE COST FOR ANY REQUIRED PROTECTION OR RELOCATION OF EXISTING POWER OR TELEPHONE POLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NOT BE THE RESPONSIBILITY OF THE OWNER.

PROTECTION OF EXISTING UTILITIES AND PIPES:

1. SHOULD IT BECOME NECESSARY TO CHANGE THE POSITION OR TEMPORARILY REMOVE ANY STORM DRAIN, SANITARY SEWER, ELECTRIC CONDUITS, WATER PIPES, GAS PIPES, PROCESS OR OTHER PIPES OR WIRES IN ORDER TO PERMIT THE CONTRACTOR TO USE A PARTICULAR METHOD OF CONSTRUCTION OR IN ORDER TO CLEAR THE STRUCTURES BEING BUILT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE LOCATION AND CIRCUMSTANCES AND SHALL CEASE WORK, IF NECESSARY, UNTIL SATISFACTORY ARRANGEMENTS HAVE BEEN MADE BY THE OWNERS OF SAID PIPES OR WIRES TO PROPERLY CARE FOR THE SAME. NO CLAIMS FOR DAMAGES WILL BE ALLOWED ON ACCOUNT OF ANY DELAY OCCASIONED THEREBY. THE ENTIRE COST OF THE CHANGES OR TEMPORARY REMOVAL MUST BE INCLUDED IN THE PRICES STIPULATED FOR THE VARIOUS ITEMS OF WORK TO BE DONE UNDER THIS CONTRACT.
2. NO SURFACE, GROUND OR TRENCH WATER SHALL BE ALLOWED TO FLOW INTO EXISTING SANITARY SEWERS.
3. CONTRACTOR IS RESPONSIBLE FOR THE PRESERVATION OF ALL FENCES, RETAINING WALLS, STEPS, UTILITY POLES, MONUMENTS, UTILITY APPURTENANCES, SIGNAGE AND LANDSCAPE BEDS. IF DAMAGED, THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT OF THESE ITEMS AT NO ADDITIONAL COST TO THE OWNER.

MONUMENTS, PROPERTY CORNERS AND BENCHMARKS:

1. MONUMENTS, PROPERTY CORNER MARKERS AND BENCHMARKS SHALL NOT BE DISTURBED BY THE CONTRACTOR. IN THE EVENT THAT IT IS NECESSARY TO REMOVE MONUMENTS, PROPERTY CORNER MARKERS OR BENCHMARKS FOR THE CONSTRUCTION OF THE WORK, THE CONTRACTOR SHALL HAVE A REGISTERED LAND SURVEYOR PROPERLY REFERENCE THE POINTS AND SHALL HAVE SAME RESET AFTER THE CONSTRUCTION HAS PASSED THE AREA.

CLEARING AND GRUBBING:

1. THE CONTRACTOR SHALL INCLUDE ALL NECESSARY PRECAUTIONS TO PROTECT AND SAVE ALL TREES WHICH ARE ADJACENT TO THE LINE OF WORK AND SHALL REMOVE ONLY THOSE TREES WHICH ARE DESIGNATED FOR REMOVAL ON THE PLANS OR DIRECTED BY THE ENGINEER. TREE ROOTS AND OVERHANGING BRANCHES SHALL BE CUT AND REMOVED FROM THE SITE, EXCEPT WITH SPECIAL PERMISSION OF THE ENGINEER. WHEN REQUIRED, THE CUTTING OF ROOTS AND BRANCHES SHALL BE DONE IN A MANNER TO LEAVE A SMOOTH END WITHOUT SPLITTING OR CRUSHING. THE CUT END SHALL BE NEATLY TRIMMED. ALL DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE SATISFACTION OF THE ENGINEER. WHERE MISCELLANEOUS SMALL TREES AND SHRUBS ARE NOTED TO BE REMOVED AND RESET, THE COST OF SUCH WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT.

RESTORATION:

1. REFER TO PROJECT SPECIFICATIONS FOR RESTORATION.

MATERIAL DISPOSAL AND TEMPORARY SURFACES:

1. THE REMOVAL AND DISPOSAL OF ALL SURPLUS EXCAVATED MATERIAL AND CONSTRUCTION DEBRIS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR ULTIMATE DISPOSAL. THE DISPOSAL OF ALL CONSTRUCTION DEBRIS SHALL BE AT AN APPROVED LOCATION BY THE OWNER AND THE ENGINEER. THE DISPOSAL OF ALL "CLEAN" WASTE MATERIAL SHALL BE AT APPROVED LANDFILLS, AND/OR OTHER SITES APPROVED BY THE OWNER AND ENGINEER. THE DISPOSAL OF EXISTING PIPELINE AND TANK SEDIMENTS AND WASTEWATER SLUDGE SHALL BE AT AN APPROVED LOCATION. THE CONTRACTOR SHALL OBTAIN ALL APPROVALS, PERMITS, LICENSES, ETC. FROM LOCAL, STATE AND FEDERAL AGENCIES AND/OR PRIVATE LANDOWNERS. THE CONTRACTOR SHALL FURNISH THE ENGINEER A COPY OF ALL APPROVALS OR WRITTEN PERMISSION PRIOR TO DISPOSING OF ANY WASTE AT SAID SITE.
2. TEMPORARY SURFACES WHERE EXCAVATION ARE LOCATED IN STREETS, DRIVES AND PARKING AREAS SHALL BE FURNISHED AND PLACED BY THE CONTRACTOR AND SHALL BE FULLY MAINTAINED TO MINIMIZE INCONVENIENCE TO THE PUBLIC AT NO ADDITIONAL COST TO THE OWNER.
3. THE ABOVE DESCRIBED WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF ALL WORK AND INCLUDED IN THE RESPECTIVE PAY ITEMS AND SHALL NOT BE A SEPARATE PAY ITEM.
4. DUMP SITES MUST BE APPROVED BY THE OWNER.

PROHIBITED CONSTRUCTION ACTIVITIES:

1. THE USE OF EXPLOSIVES WITHIN MUNICIPAL LIMITS, UNLESS A PERMIT IS ISSUED BY THE OWNER.
2. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, STREAM CORRIDORS, OR STORM SEWERS; ALL SUCH WATER WILL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE.
3. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE, OR ANY OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.
4. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT.
5. STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED ON THE PLANS BY THE ENGINEER FOR SUCH PURPOSES.
6. RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF THE ENGINEER.
7. OPERATION ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS ALLOWED BY LOCAL ORDINANCES OR REGULATIONS.
8. CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS AND THE ENGINEER AND CLOSING CLEAR ACCESS:

BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES;

BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE; OR

BY VEHICLES TO DRIVEWAYS WITHOUT THE PROVISION OF ALTERNATIVE MEANS OF BUILDING INGRESS AND EGRESS.

STRUCTURAL BACKFILL AND FILL:

1. NO BACKFILL SHALL BE PLACED AGAINST ANY STRUCTURAL ELEMENT UNTIL THE STRENGTH LEVEL OF THE IN-PLACE CONCRETE HAS ATTAINED THE SPECIFIED DESIGN STRENGTH.
2. THE CONTRACTOR MAY TEST IN-PLACE BACKFILL STRENGTH USING NON-DESTRUCTIVE PROCEDURES OF ASTM C803, PENETRATION RESISTANCE.
3. EXISTING ON-SITE SOILS WHICH ARE FREE OF ORGANIC CONTAMINATION AND OTHER OBJECTIONABLE MATERIALS MAY BE UTILIZED AS SITE FILL MATERIAL. COMPACT MAXIMUM EIGHT (8") INCH LOOSE LAYERS UNIFORMLY TO NOT LESS THAN 90% STANDARD PROCTOR UNLESS OTHERWISE SPECIFIED. REFER TO THE PROJECT SPECIFICATIONS FOR BACKFILLING. SHALE AND/OR SLAG MAY NOT BE USED AS A BACKFILL OR FILL MATERIAL.
4. ALL SHALE EXCAVATIONS SHALL BE REMOVED FROM THE SITE AND NOT USED AS BACKFILL.

PROTECTION OF THE PUBLIC NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF THE PUBLIC FROM ANY HAZARDS CAUSED BY THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL PROVIDE SIGNS, BARRICADES, FENCING, PLATES, COVERS, ETC. NEEDED TO PROVIDE THIS PROTECTION. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS WITH RESPECT TO PROTECTING THE PUBLIC.

NOISE CONTROL PRACTICES:

1. CONSTRUCTION ACTIVITIES WILL BE LIMITED TO WEEKDAY DAYTIME HOURS, UNLESS APPROVED IN ADVANCE BY THE OWNER.
2. CONSTRUCTION EQUIPMENT WILL BE PROVIDED WITH INTAKE SILENCERS AND MUFFLERS, AS REQUIRED BY SAFETY STANDARDS.
3. ALL CONSTRUCTION VEHICLES SHOULD BE EQUIPPED WITH PROPER EMISSIONS CONTROL EQUIPMENT.
4. PERIODICALLY CHECK EQUIPMENT AND MACHINERY FOR PROPER TUNING TO MINIMIZE EXHAUST EMISSIONS AND NOISE.

STORM SEWER SYSTEM NOTES:

1. CONTRACTOR SHALL FILL ALL VOIDS AT PIPE CONNECTIONS TO EXISTING & NEW CATCH BASINS INSIDE & OUTSIDE WITH NON-SHRINK GROUT. GROUT WATER-TIGHT AND FLUSH TO ALL INTERIOR WALLS.
2. CONTRACTOR SHALL RE-CONNECT ALL ENCOUNTERED STORM SEWER DRAIN LINES TO THE NEW STORM SEWER.
3. ALL EXISTING UTILITY LINE ELEVATIONS SHOWN ARE ESTIMATED AND MUST BE FIELD DETERMINED BY THE CONTRACTOR. CONFLICTS MUST BE RESOLVED BY THE CONTRACTOR AND THE UTILITY OWNER.
4. FINAL RIM TO BE FLUSH WITH FINAL GRADE IN PAVED AREAS & 3" BELOW FINAL LAWN GRADE IN UNPAVED AREAS.
5. WHEN CONNECTING EXISTING STORM SEWER OR STORM DRAIN LINES TO A NEW STORM SEWER STRUCTURE, CONTRACTOR SHALL MAKE CONNECTION BY INSTALLING A MIN 5'-0" NEW STORM SEWER DRAIN LINE (MATCH EXISTING DIA. & TYPE) & A SILT TIGHT COUPLING OR CONCRETE ENCASED JOINT AS APPROVED BY THE ENGINEER. SEE "DRAIN PIPE CONNECTION DETAIL".
6. INSTALL SILT SACK IN ALL CATCH BASINS, REMOVE WHEN DISTURBED AREAS ARE STABILIZED.
7. WHEN CONNECTING EXISTING STORM SEWER DRAIN LINES TO A NEW STORM SEWER STRUCTURE, CONTRACTOR SHALL MAKE CONNECTION BY INSTALLING A MINIMUM OF 5'-0" NEW STORM SEWER DRAIN LINE (MATCHING EXISTING DIAMETER & TYPE) & COUPLING.
8. NO PIPES SHALL ENTER ANY INLET BOX AT THE CORNERS.

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CITY OF WILLOWICK
MARRY PARK EXERCISE TRAIL
IMPROVEMENTS PROJECT
LAKE COUNTY

WILLOWICK, OHIO

GENERAL - 00 SERIES
GENERAL NOTES

PROJECT NO.
19023301

DISCIPLINE
GENERAL

SHEET NAME
00G-04

SHEET
3

OF
12

H:\30159\19023301\DWG\ASHEET\TRC_19023301 - CT GENERAL NOTES.DWG - 3 GENERAL NOTES - 12/19/2019 1:58:57 PM - STEVEN STURM

CONTROL POINT #3
N 715933.9065
E 2249965.3131
EL 630.21'
IRON PIN SET

BM#2
IRON PIN SET W/ CT REF. CAP
24' W. OF PLAYGROUND POST
27 S. OF CHAIN LINK FENCE
EL 628.82'

1. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, EQUIPMENT & SERVICES TO PROPERLY EXECUTE THE DEMOLITION & REMOVAL WORK INDICATED ON THESE CONSTRUCTION DOCUMENTS.
2. THE CONTRACTOR SHALL VISIT THE SITE & INSPECT THE EXISTING STRUCTURES & VERIFY THAT ALL ITEMS INDICATED TO BE EXISTING & SO MARKED ON THE DRAWINGS ARE IN PLACE & CORRECT.
3. PROVISIONS SHALL BE MADE TO ALLEVIATE THE SPREAD OF DEBRIS, DIRT & DUST TO THE ROADWAY & ADJACENT PROPERTIES. THE PROPERTY SHALL BE KEPT CLEAN AS POSSIBLE AT ALL TIMES.
4. ALL DEBRIS & MATERIALS FROM THE DEMOLITION WORK SHALL BE DISPOSED OF OFF THE SITE IN A LEGAL MANNER. NO RECLAIMED MATERIALS SHALL BE RE-USED EXCEPT AS SPECIFICALLY APPROVED BY ENGINEER OR OWNER.
5. WHERE DEMOLITION & CUTTING WORK HAS OCCURRED OR WHERE EXISTING SURFACES, MATERIALS OR OTHER ITEMS HAVE BEEN DAMAGED OR DISTURBED AS A RESULT OF THIS CONTRACT, THE SAID SURFACES & AREAS SHALL BE CAREFULLY RESTORED AS REQUIRED TO BE CONTIGUOUS TO EXISTING SURROUNDING SURFACES.
6. COORDINATE ALL DEMOLITION WITH NEW PLAN SO AS NOT TO CREATE CONFLICTS OF NEW INSTALLATION.

DEMOTES ITEM OR AREA FOR DEMOLITION

- 1 REMOVE EXISTING ASPHALT & CONCRETE TRAIL
- 2 NEAT LINE SAW CUT
- 3 REMOVE EXISTING CONCRETE HEADWALL
- 4 EXISTING STORM LINE FROM COURT TO BE MODIFIED



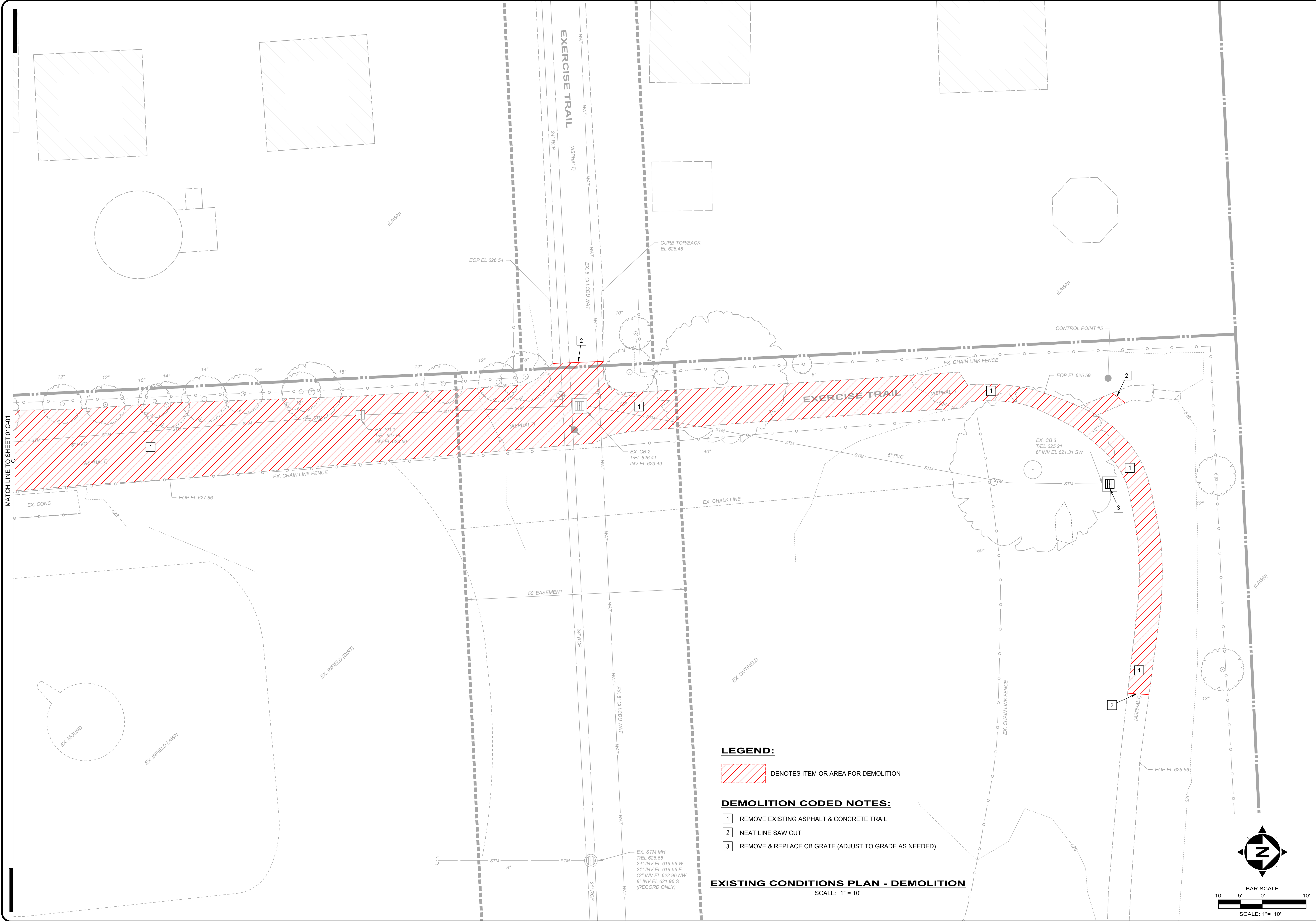
CITY OF WILLOWICK
MANRY PARK EXERCISE TRAIL
IMPROVEMENTS PROJECT

LAKE COUNTY **WILLOWICK, OHIO**


SITE IMPROVEMENTS - 01 SERIES

EXISTING CONDITIONS PLAN 1 - DEMOLITION

PROJECT NO.	
19023301	
DISCIPLINE	
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SHEET NAME	
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LEGEND:

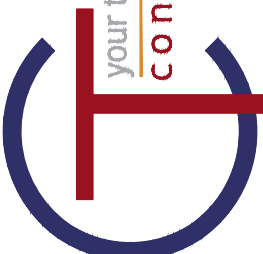
 DENOTES ITEM OR AREA FOR DEMOLITION

- DEMOLITION CODED NOTES:**
- 1** REMOVE EXISTING ASPHALT & CONCRETE TRAIL
 - 2** NEAT LINE SAW CUT
 - 3** REMOVE & REPLACE CB GRATE (ADJUST TO GRADE AS NEEDED)

EXISTING CONDITIONS PLAN - DEMOLITION
SCALE: 1" = 10'

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ISSUE DATE:	12/19/2019			
SCALE:	AS NOTED			
DESIGNED BY:	RDS			
DRAWN BY:	RDS			
CHECKED BY:	CEC			

CITY OF WILLOWICK

MANRY PARK EXERCISE TRAIL
IMPROVEMENTS PROJECT

LAKE COUNTY

WILLOWICK, OHIO

SITE IMPROVEMENTS - 01 SERIES

EXISTING CONDITIONS PLAN 2 - DEMOLITION

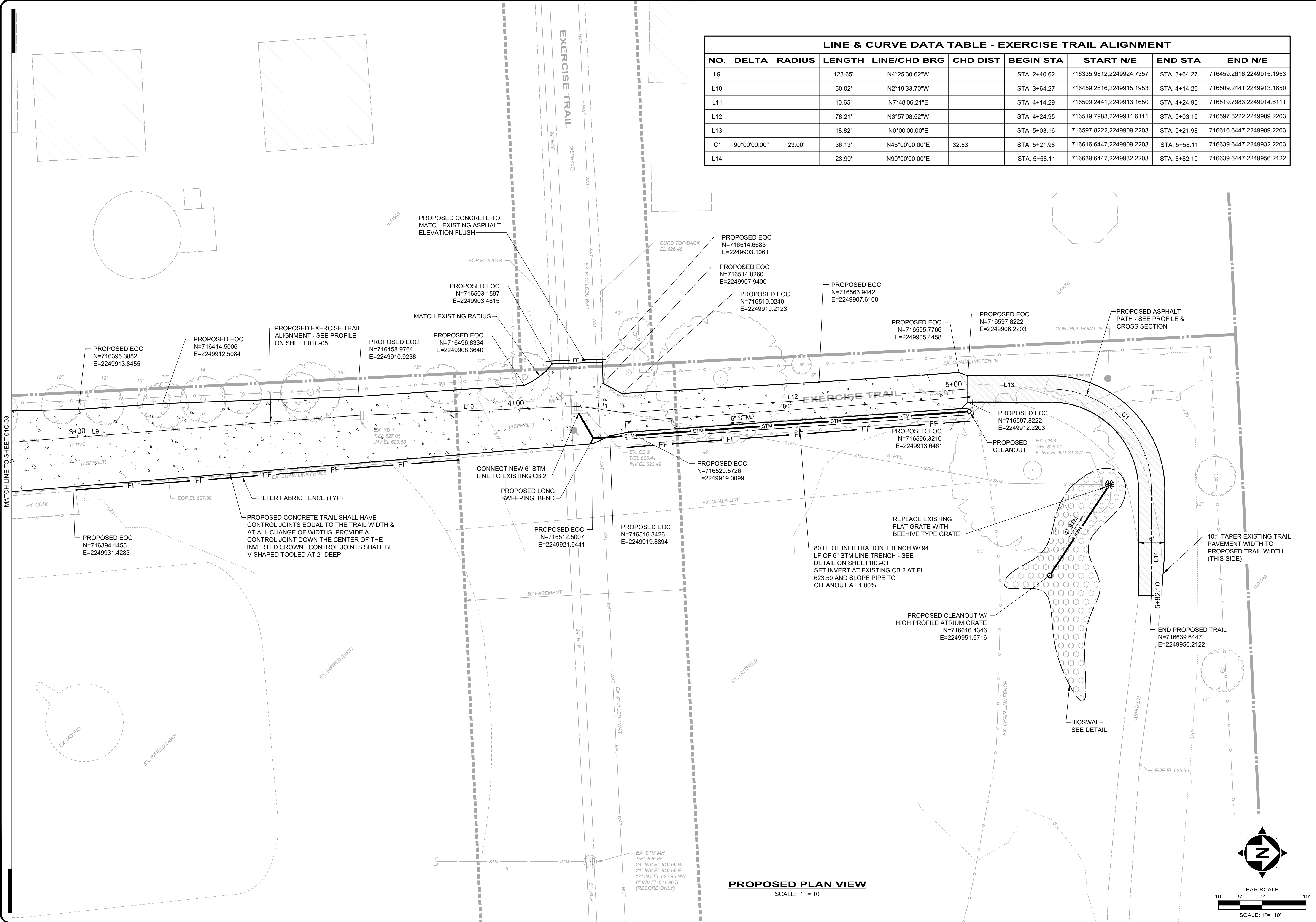
PROJECT NO.
19023301

DISCIPLINE
CIVIL

SHEET NAME
01C-02

SHEET 5	OF 12
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LINE & CURVE DATA TABLE - EXERCISE TRAIL ALIGNMENT									
NO.	DELTA	RADIUS	LENGTH	LINE/CHD BRG	CHD DIST	BEGIN STA	START N/E	END STA	END N/E
L9			123.65'	N4°25'30.62"W		STA. 2+40.62	716335.9812,2249924.7357	STA. 3+64.27	716459.2616,2249915.1953
L10			50.02'	N2°19'33.70"W		STA. 3+64.27	716459.2616,2249915.1953	STA. 4+14.29	716509.2441,2249913.1650
L11			10.65'	N7°48'06.21"E		STA. 4+14.29	716509.2441,2249913.1650	STA. 4+24.95	716519.7983,2249914.6111
L12			78.21'	N3°57'08.52"W		STA. 4+24.95	716519.7983,2249914.6111	STA. 5+03.16	716597.8222,2249909.2203
L13			18.82'	N0°00'00.00"E		STA. 5+03.16	716597.8222,2249909.2203	STA. 5+21.98	716616.6447,2249909.2203
C1	90°00'00.00"	23.00'	36.13'	N45°00'00.00"E	32.53	STA. 5+21.98	716616.6447,2249909.2203	STA. 5+58.11	716639.6447,2249932.2203
L14			23.99'	N90°00'00.00"E		STA. 5+58.11	716639.6447,2249932.2203	STA. 5+82.10	716639.6447,2249956.2122

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BID SET

ISSUED FOR

ISSUE DATE

SCALE

DESIGNED BY

DRAWN BY

CHECKED BY

CITY OF WILLOWICK
MANNY PARK EXERCISE TRAIL
IMPROVEMENTS PROJECT

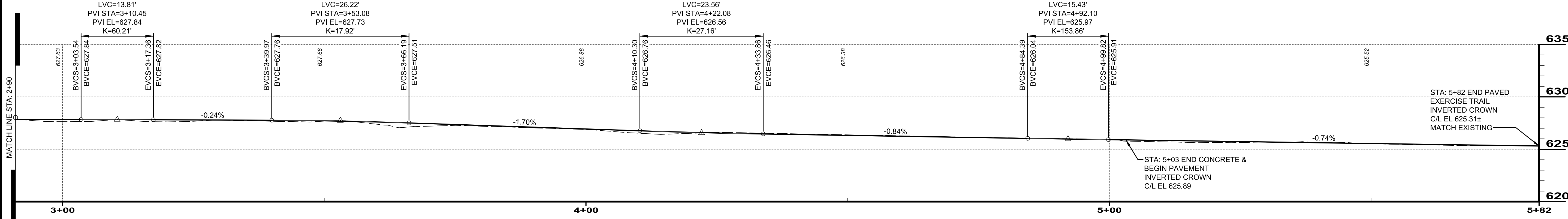
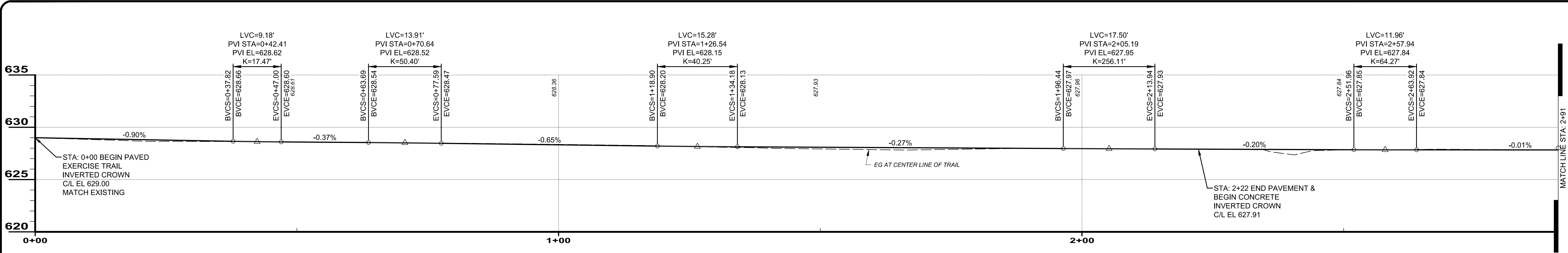
LAKE COUNTY
WILLOWICK, OHIO
SITE IMPROVEMENTS - 01 SERIES
PROPOSED SITE PLAN 2

PROJECT NO.
19023301

DISCIPLINE
CIVIL

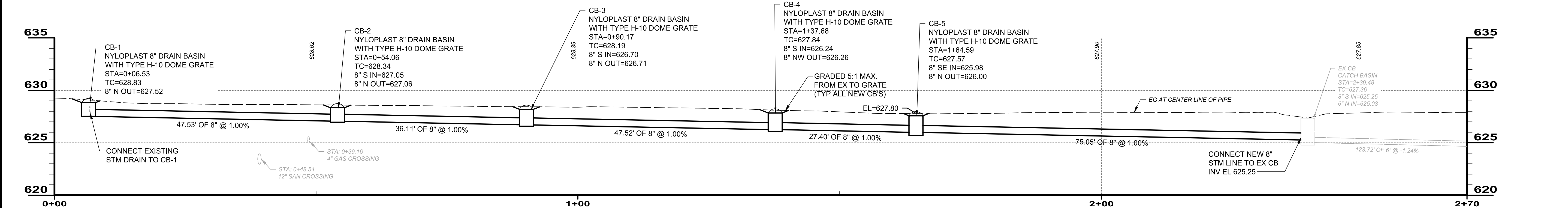
SHEET NAME
01C-04

SHEET 7 OF 12



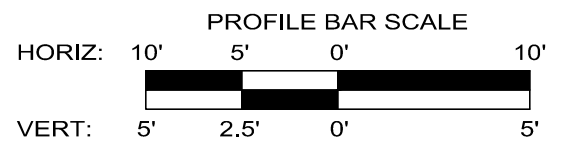
PROPOSED EXERCISE TRAIL PROFILES

SCALE: 1" = 10' HORIZ.
SCALE: 1" = 5' VERT.



PROPOSED STORM SEWER PROFILE

SCALE: 1" = 10' HORIZ.
SCALE: 1" = 5' VERT.



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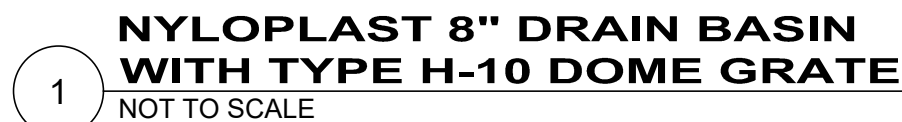
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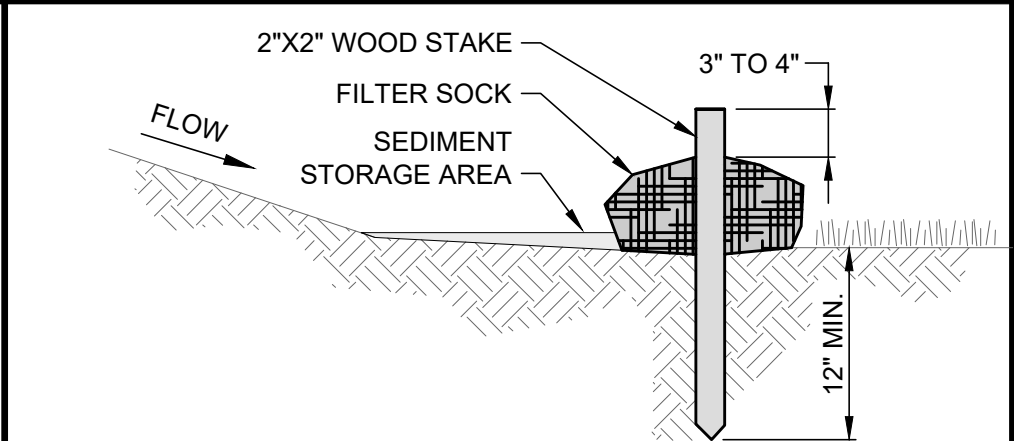


1. THIS DETAIL IS FOR REFERENCE AND DIMENSION CONTROL ONLY; NOT ALL ITEMS SHOWN MAY APPLY. SEE VARIOUS PLAN SHEETS FOR ACTUAL CONFIGURATION, CONTOURS, INLET BASIN AND PIPE SIZES, QUANTITIES, ELEVATIONS, PIPE SLOPES AND LANDSCAPING PLACEMENT.
2. PAINT ALL PVC APPURTENANCES EXTRUDING FROM THE GROUND SURFACE BLACK (E.G. NYLOPLAST INLET BASIN, RISER PIPE, CLEANOUT CAP, ETC.).
3. ROCK SHALL BE 4" TO 6" DIA. RIVERSTONE COBBLES (50%) WITH 1" TO 3" DIA. RIVERSTONE COBBLES (50%).





[illegible]



- NOTES:
1. FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST.
 2. COMPOST SHALL BE WEED, PATHOGEN AND INSECT FREE, FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH, BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, AND CONSIST OF PARTICLES RANGING FROM 3/8" TO 2".
 3. FILTER SOCKS SHALL BE PLACED ON A LEVEL LINE ACROSS SLOPES PARALLEL TO THE BASE OF THE SLOPE. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND MID-SLOPE.
 4. FILTER SOCKS SHALL BE PLACED AT LEAST 5' FROM THE TOE OF SLOPE FOR SEDIMENT DEPOSIT.
 5. BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED 1/3 THE FILTER SOCK HEIGHT.
 6. WHEN A FILTER SOCK IS NO LONGER REQUIRED, IT SHALL BE DISPERSED ON-SITE.
 7. THE MAXIMUM DRAINAGE AREA PER 100 FEET OF FILTER SOCK IS 1/2 ACRE AND IS DEPENDENT ON THE SLOPE FOLLOWING THE GUIDANCE CHART BELOW:

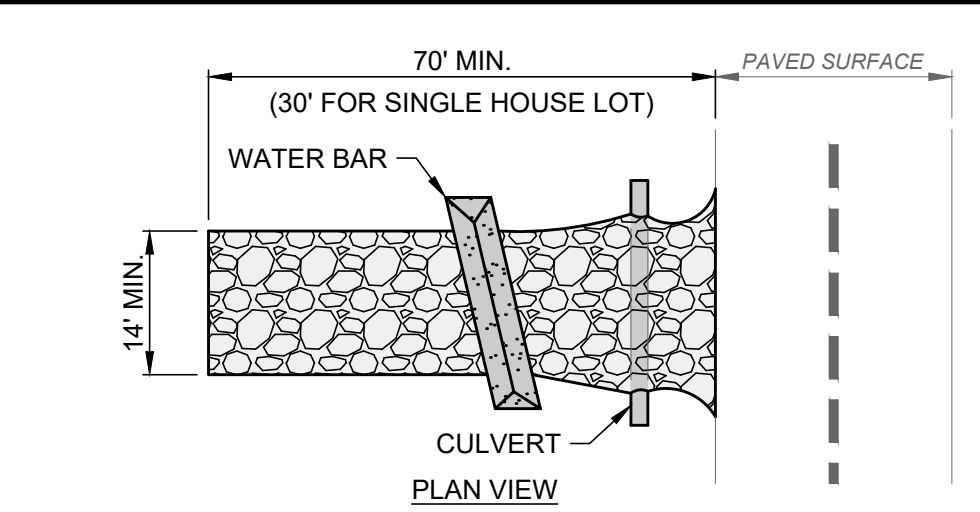
MAX. SLOPE LENGTH ABOVE FILTER SOCK					
SLOPE	RATIO (H:V)	8"	12"	18"	24"
0% - 2%	0 - 50:1	125'	250'	300'	350'
2% - 10%	50:1 - 10:1	100'	125'	200'	250'
10% - 20%	10:1 - 5:1	75'	100'	150'	200'
20% - 50%	5:1 - 2:1	N/A	50'	75'	100'
≥ 50%	≥ 2:1	N/A	25'	50'	75'

FILTER SOCK DETAIL
SCALE: NONE

- NOTES:
1. THE SEED BED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
 2. SOIL AMENDMENTS MAY BE REQUIRED TO ESTABLISH VEGETATION. PERFORM SOIL TESTS TO PREDICT THE NEED FOR LIME OR FERTILIZER. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS
 3. APPLY SEED UNIFORMLY. COVER BROADCASTED SEED BY RAKING OR DRAGGING, AND LIGHTLY TAMPING INTO PLACE. MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
 4. INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.

TEMPORARY SEEDING SPECIES SELECTION			
DATES	SPECIES	LB/1,000 SF	LB/AC.
MARCH 1 - AUGUST 15	OATS	3	128
	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
	PERENNIAL RYEGRASS	2	40
AUGUST 16 - OCTOBER 31	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
	WHEAT	3	120
	TALL FESCUE	1	40
NOVEMBER 1 - FEBRUARY 28	PERENNIAL RYEGRASS	1	40
	TALL FESCUE	2	40
ONLY MULCH OR DORMANT SEEDING.			

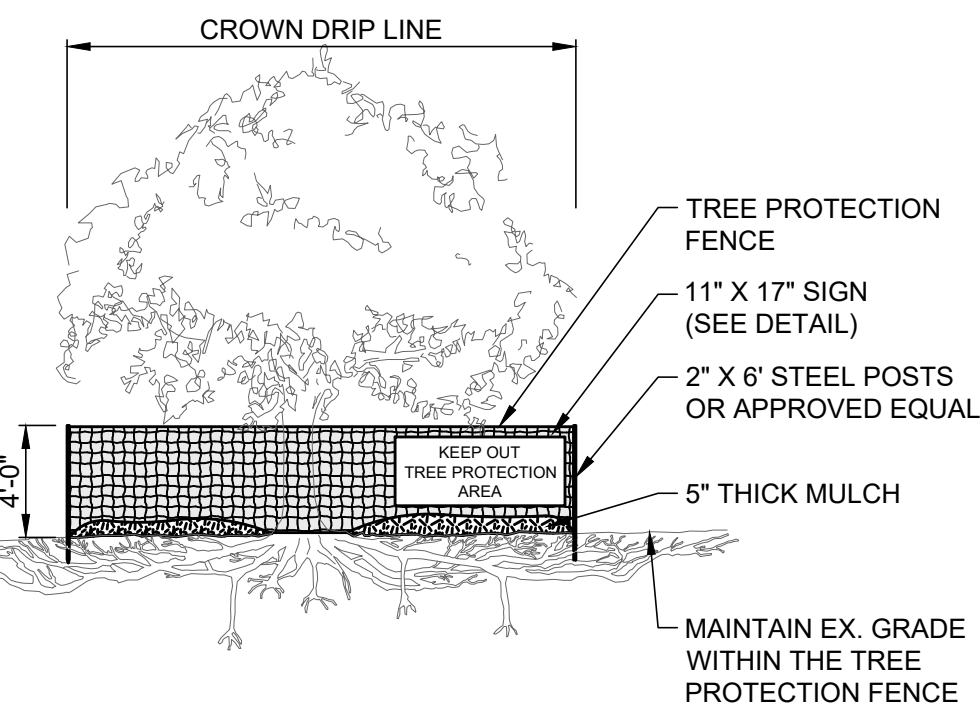
TEMPORARY SEEDING DETAIL



- NOTES:
1. GEOTEXTILE SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS MEETING THE FOLLOWING:

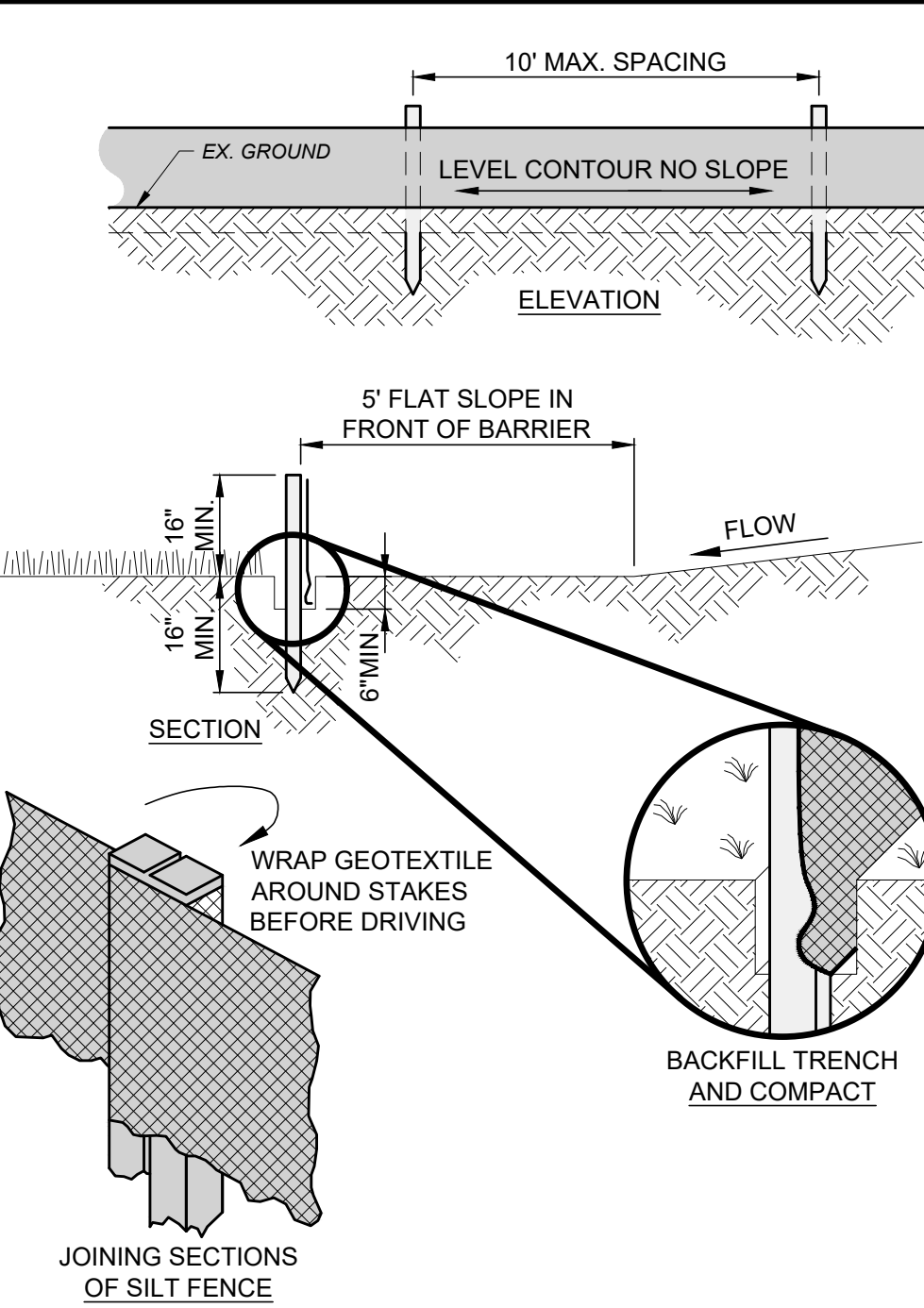
TENSILE STRENGTH	200 LB
PUNCTURE STRENGTH	80 PSI
TEAR STRENGTH	50 LB
BURST STRENGTH	320 PSI
ELONGATION	20%
EQUIVALENT OPENING SIZE	< 0.6 MM
PERMITTIVITY	0.001 CM/SEC.
 2. INSTALL WATER BAR, AS NEEDED, TO PREVENT SURFACE RUNOFF FROM FLOWING OUT ONTO PAVEMENT.
 3. APPLY ADDITIONAL STONE AS CONDITIONS DEMAND, REPLENISH STONE WHEN THE DEPTH IS LESS THAN 6", AND REPLACE IF STONES BECOMES MUD-LADEN.
 4. IMMEDIATELY REMOVE MUD DROPPED, WASHED OR TRACKED ONTO ROADS OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS BY SCRAPING OR SWEEPING.
 5. CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES OR PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
 6. CONSTRUCTION ENTRANCE SHALL REMAIN UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY.

CONSTRUCTION ENTRANCE
SCALE: NONE



- NOTES:
1. TREE PROTECTION FENCE MUST BE INSTALLED PRIOR TO BEGINNING CLEARING OPERATIONS AND REMAIN UNTIL FINAL GRADING HAS BEEN COMPLETED.
 2. FENCE MUST BE PLACED BEYOND THE DRIP LINE OR CANOPY OF TREES (SEE PLANS FOR GENERAL FENCE ALIGNMENT).
 3. FENCE SHALL BE ORANGE COLOR, HIGH DENSITY POLYETHYLENE FENCING WITH 3.5" X 1.5" OPENINGS.
 4. STEEL POSTS SHALL BE INSTALLED AT 8' O.C. MIN.
 5. SIGN SHALL BE LAMINATED IN PLASTIC AND SPACED EVERY 50' ALONG THE FENCE.
 6. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING, INCLUDING FENCE INSTALLATION AND REMOVAL.

TREE PROTECTION DETAIL
SCALE: NONE



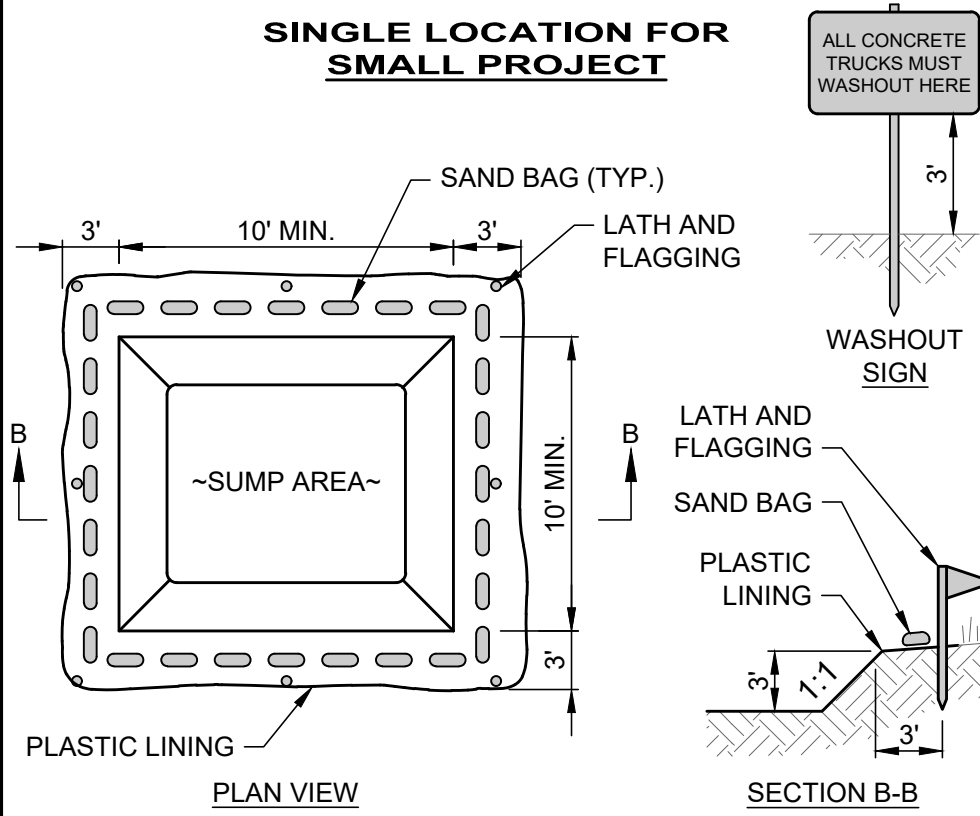
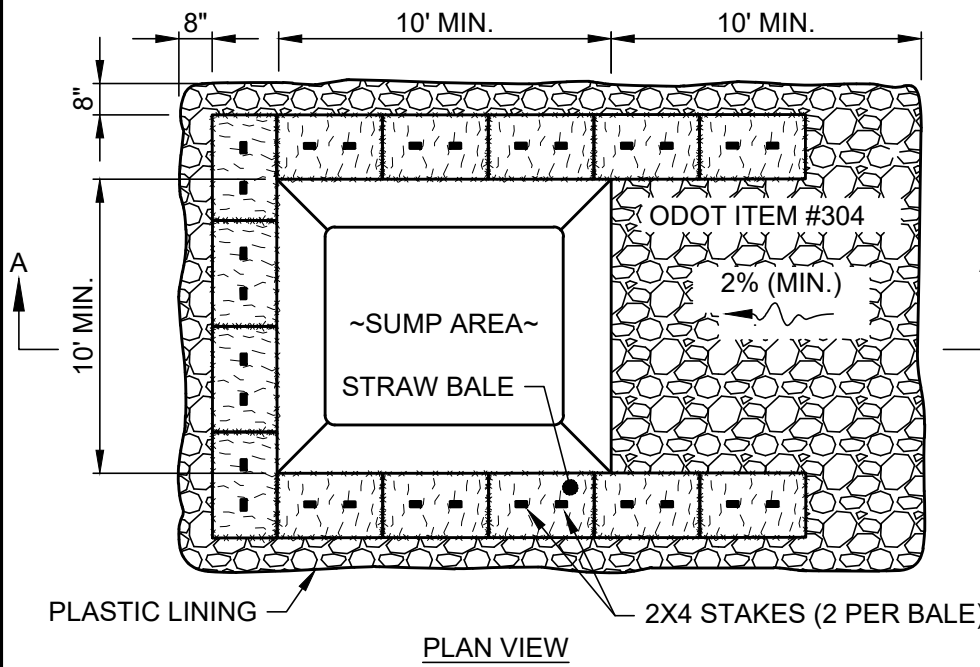
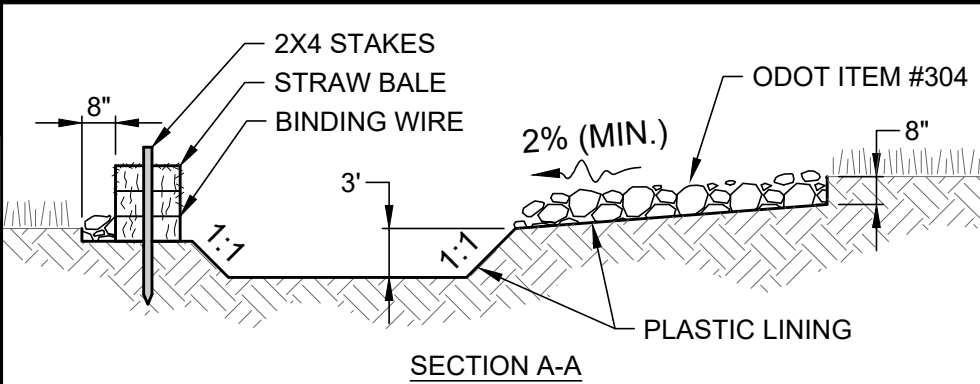
FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MIN	ASTM D-1682
MULLEN BURST STRENGTH	190 PSI MIN	ASTM D-3786
SLURRY FLOW RATE	0.3 GAL./MIN./S.F. MAX.	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MIN	ASTM-G-26

- NOTES:
1. PRESERVE VEGETATION FOR 5 FEET OR AS MUCH AS POSSIBLE UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
 2. THE MAXIMUM DRAINAGE AREA PER 100 FEET OF SILT FENCE IS DEPENDENT ON THE SLOPE, BUT NO MORE THAN 1/2 ACRE. SILT FENCE CANNOT BE USED FOR DRAINAGE AREAS WITH SLOPES GREATER THAN 50%.
 3. SILT FENCE MAY ONLY PASS RUNOFF AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, THEN CHANGE THE LAYOUT OF THE SILT FENCE, REMOVE ACCUMULATED SEDIMENT OR INSTALL OTHER PRACTICES.
 4. SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, VERIFICATION FABRIC IS SECURELY ATTACHED TO FENCE POSTS, AND VERIFICATION FENCE POSTS ARE FIRMLY IN THE GROUND. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED 1/3 THE FENCE HEIGHT.

SILT FENCE
SCALE: NONE

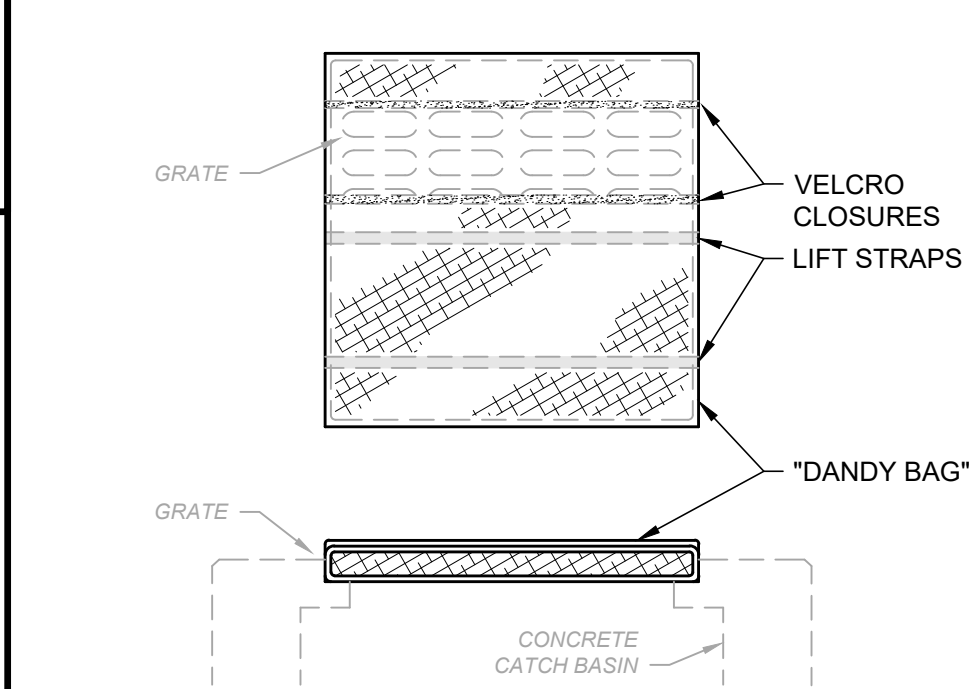
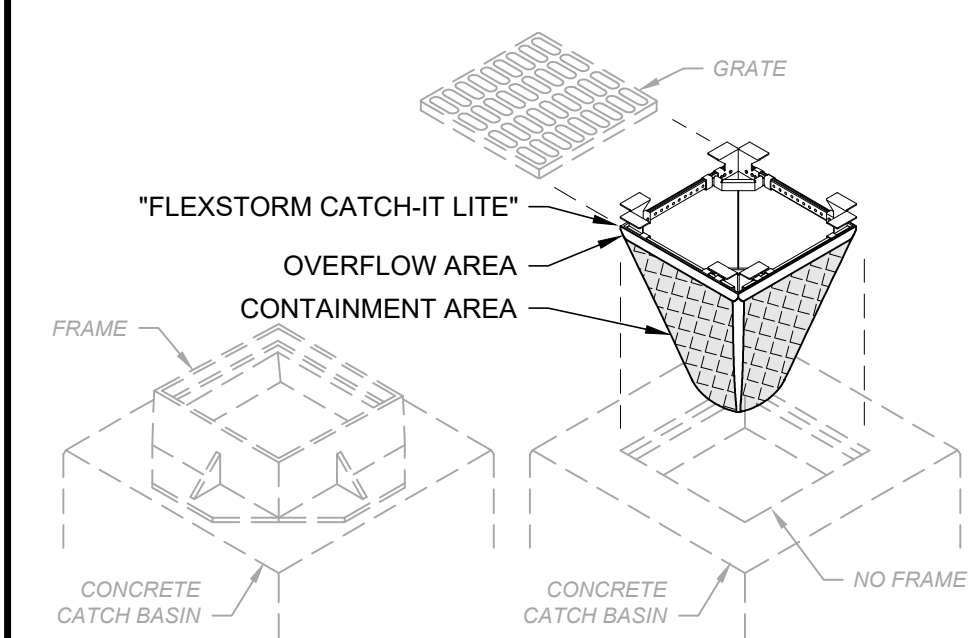
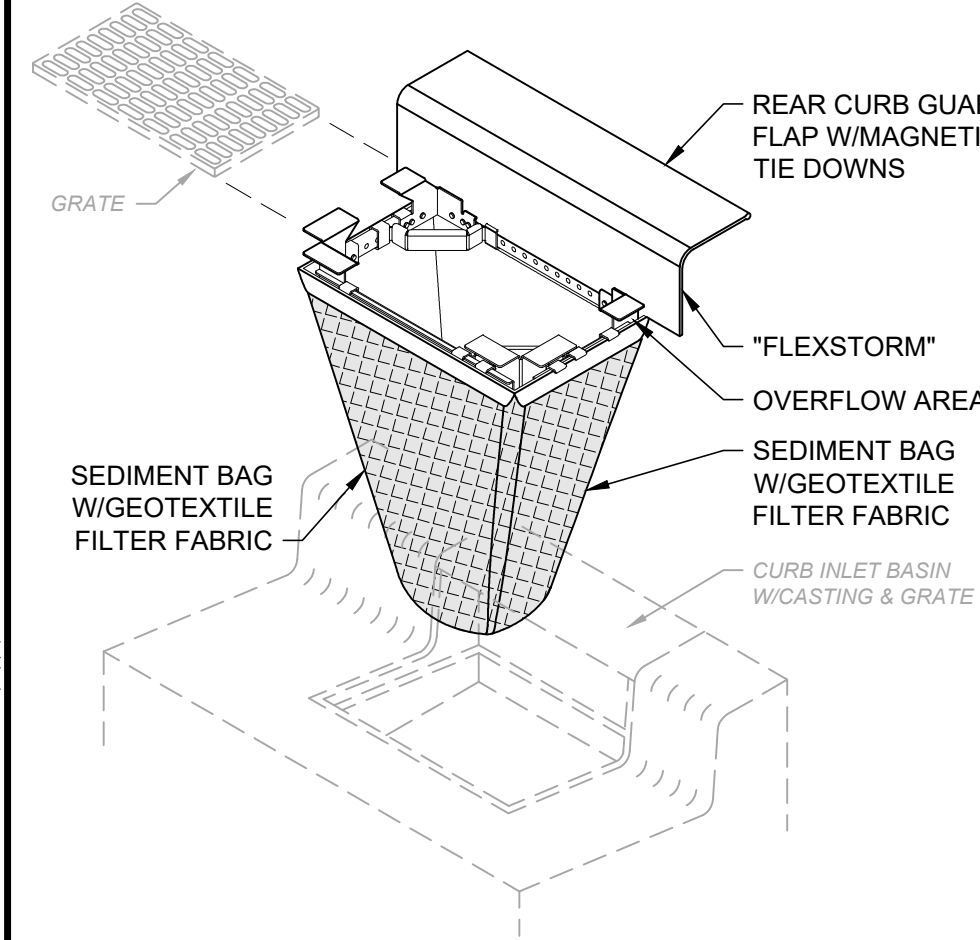
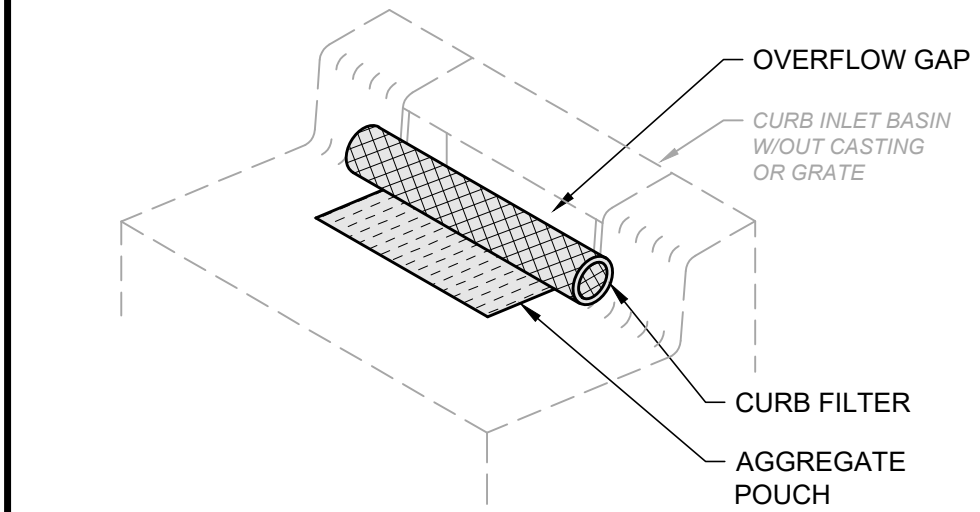
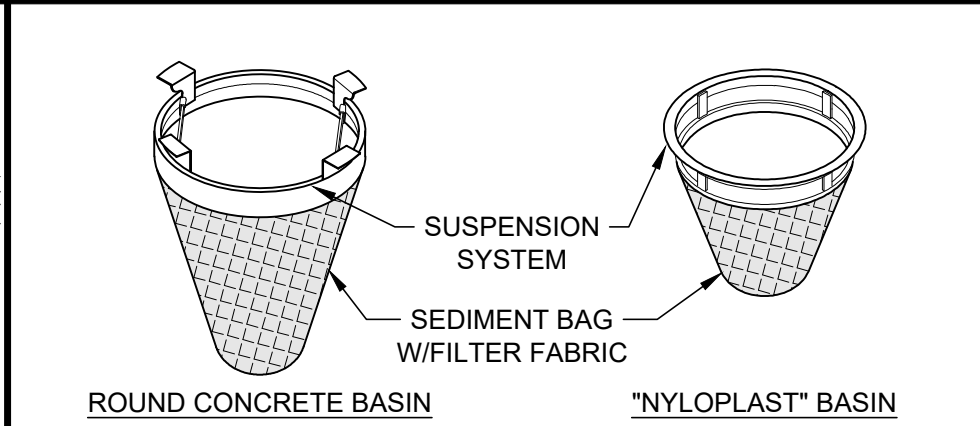
- NOTES:
1. MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
 - UNROTTED SMALL GRAIN STRAW SPREAD UNIFORMLY AT 2 TONS/AC. (2 TO 3 BALES).
 - WOOD-CELLULOSE FIBER (I.E. HYDROSEEDING) APPLIED AT 1 TON/AC.
 - ROLLED EROSION CONTROL PRODUCT OR MULCH MATTING APPLIED PER MANUFACTURER RECOMMENDATION.
 - WOOD MULCH OR CHIPS APPLIED AT 6 TONS/AC.
 2. MULCH SHALL BE ANCHORED IMMEDIATELY BY ONE OF THE FOLLOWING METHODS:
 - PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL USING A DISK, CRIMPER OR SIMILAR TOOL. DO NOT FINELY CHOP STRAW TO BE MECHANICALLY ANCHORED, BUT LEAVE LONGER THAN 6".
 - NETTING PER MANUFACTURER RECOMMENDATION IN AREAS OF CONCENTRATED RUNOFF OR ON CRITICAL SLOPES.
 - SYNTHETIC BINDERS AT MANUFACTURER RATE.
 - WOOD-CELLULOSE FIBER BINDER AT A NET DRY WEIGHT OF 750 LB/AC, MIXED WITH WATER, AND CONTAIN 50 LB/100 GAL. MAX. OF WOOD CELLULOSE FIBER.

MULCHING DETAIL



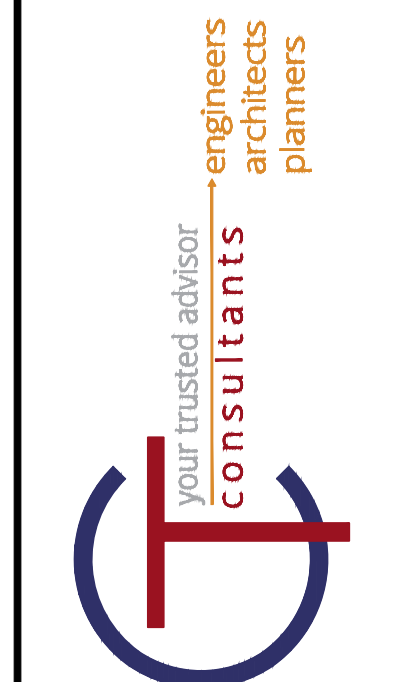
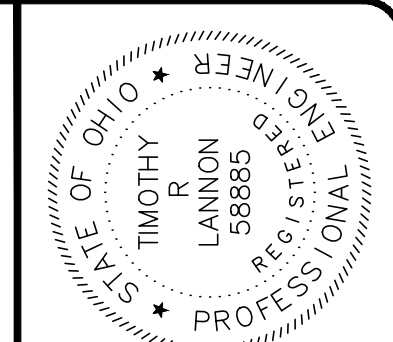
- NOTES:
1. CONCRETE WASHOUT AREA SHALL BE LOCATED A MINIMUM OF 100' FROM STORM SEWER INLETS, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS.
 2. IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO A CONSTRUCTION ENTRANCE.
 3. CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. LARGE SITES MAY REQUIRE MULTIPLE CONCRETE WASHOUT AREAS.
 4. PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-MIL. POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF LARGE ROCKS AND DEBRIS.
 5. CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
 6. CONCRETE WASHOUT AREA SHALL BE COVERED DURING INCLEMENT WEATHER TO PREVENT OVERFLOW.
 7. PREFABRICATED, PORTABLE AND RE-USABLE CONCRETE WASHOUT CONTAINERS ARE ACCEPTABLE.
 8. CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR PLASTIC LINING SHALL BE REPAIRED IMMEDIATELY. REPLACE THE ENTIRE CONCRETE WASHOUT AREA WHEN IT IS 75% FULL.

CONCRETE WASHOUT AREA DETAIL
SCALE: NONE



- NOTES:
1. ALL NEW AND EXISTING STORM INLET BASINS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED.
 2. INLET PROTECTION SHALL BE INSTALLED AS EACH STORM INLET IS CONSTRUCTED.
 3. NOT ALL ITEMS SHOWN MAY APPLY OR DIFFERENT TYPES OR CONFIGURATIONS MAY BE REQUIRED. THE CONTRACTOR SHALL MEASURE EACH INLET TO CONFIGURE AND ASSEMBLE CUSTOMIZED INLET FILTERS.

INLET PROTECTION DETAIL
SCALE: NONE



DATE	REVISION	NO	BID SET	ISSUED FOR	ISSUE DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
			12/19/2019	AS NOTED	RDS	RDS	CEC		

CITY OF WILLOWICK		WILLOWICK, OHIO	
MARRY PARK EXERCISE TRAIL IMPROVEMENTS PROJECT		LAKE COUNTY	
STORM WATER POLLUTION PREVENTION PLAN - SWP3 SERIES		SWPPP DETAILS	

PROJECT NO.	
19023301	
DISCIPLINE	
GENERAL	
SHEET NAME	
SWP3-2	
SHEET	OF
12	12