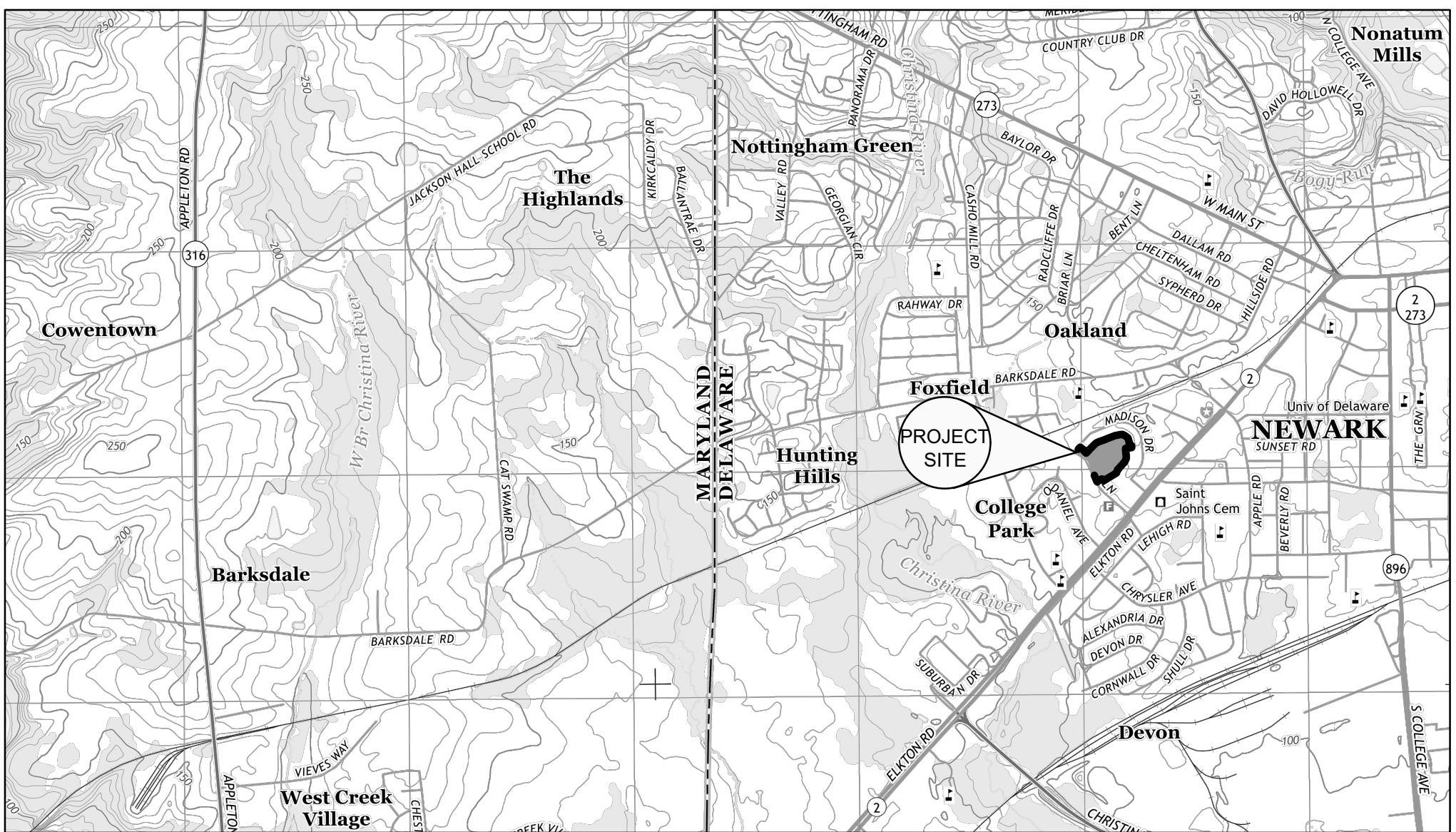


CONSTRUCTION PLAN
FOR
EDNA C. DICKEY PARK SITE
IMPROVEMENTS
NEWARK, NEW CASTLE COUNTY, DELAWARE
CONTRACT ITB 24-11

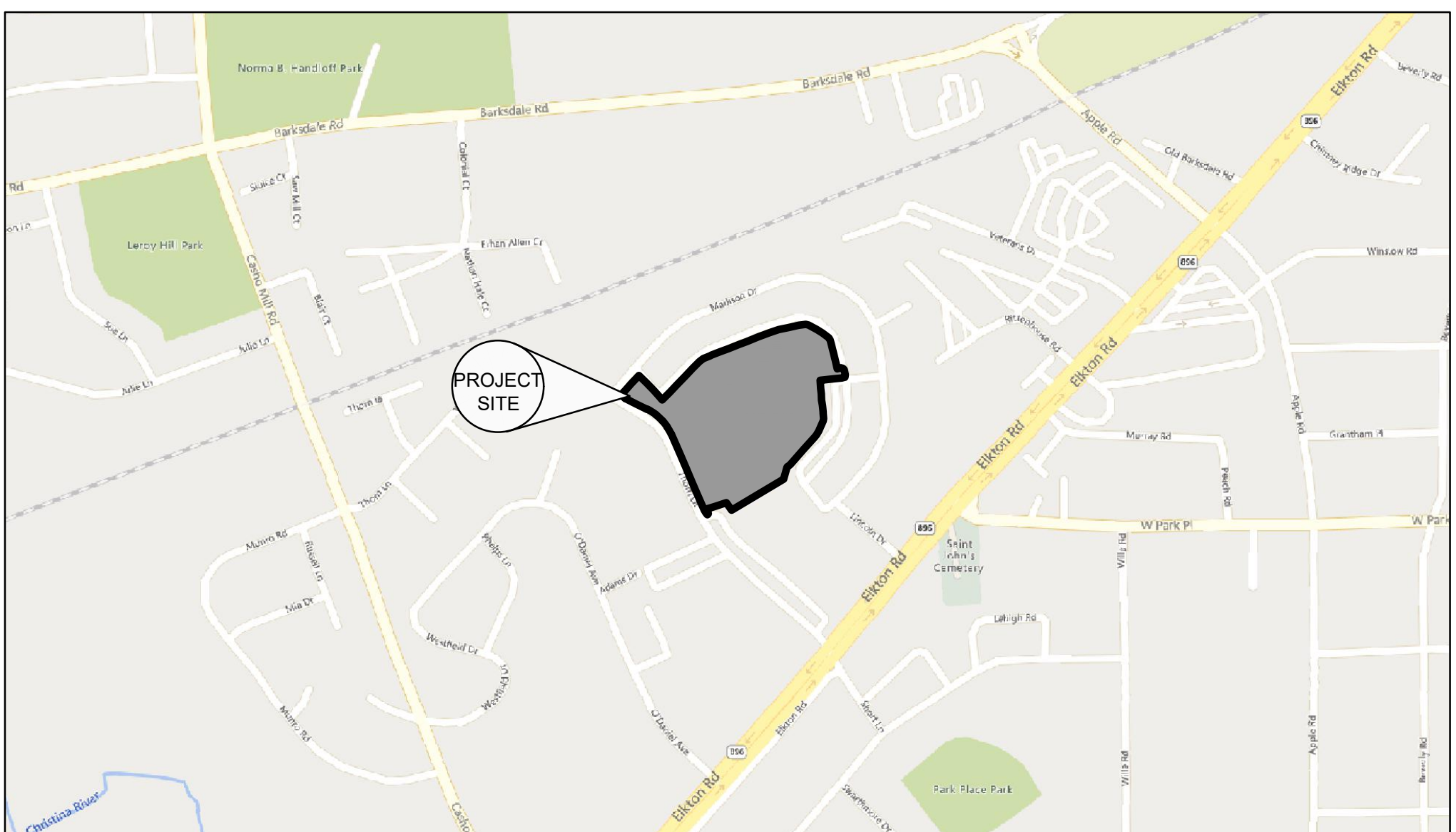
PROJECT NOTES

1. CONTRACTOR SHALL NOTIFY MISS UTILITY OF DELAWARE 72 HOURS BEFORE START OF CONSTRUCTION AND BEFORE DIGGING. CALL 1(800) 282-8555.
2. CONTRACTOR SHALL NOTIFY PAULA MARTINSON ENNIS, DIRECTOR, PARKS AND RECREATION, AT 302-366-7000 EXT 1042 AT LEAST 72 HOURS BEFORE START OF CONSTRUCTION.
3. UNLESS OTHERWISE NOTED AND AS APPLICABLE TO THE WORK, ALL CONSTRUCTION, MATERIALS, AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE:
 - 3.1. CITY OF NEWARK DELAWARE MUNICIPAL CODE
 - 3.2. CITY OF NEWARK DEPARTMENT OF PUBLIC WORKS AND WATER RESOURCES WATER AND WASTEWATER STANDARDS AND SPECIFICATIONS.
 - 3.3. CITY OF NEWARK STANDARD SPECIFICATIONS FOR ROAD AND UTILITY CONSTRUCTION, DETAILS AND SUPPLEMENTS.
 - 3.4. DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND DETAILS
 - 3.5. DELAWARE SEDIMENT AND STORMWATER REGULATIONS
4. WHERE REFERENCES ARE MADE TO STANDARDS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE IN ITS POSSESSION THE LATEST UP-TO-DATE STANDARDS AS OF THE DATE OF ADVERTISEMENT OF THIS PROJECT.
5. ALL AREAS DISTURBED BY THE CONTRACTOR, WHETHER DISTURBED DIRECTLY OR INDIRECTLY BY THE CONSTRUCTION OR OTHER ACTIVITIES RELATED TO THE PERFORMANCE OF THIS PROJECT, SHALL BE RETURNED TO EQUAL OR BETTER THAN THE ORIGINAL CONDITION PRIOR TO FINAL ACCEPTANCE OF THE WORK. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING UTILITIES, CURBS, SIDEWALK, PAVING, SHRUBS, FENCING, ETC. ANY AND ALL DAMAGE DONE TO SAME SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT CONTRACTOR'S EXPENSE.
6. UNLESS NOTED OTHERWISE, ALL MATERIALS SALVAGED DURING DEMOLITION AND CONSTRUCTION SHALL BECOME THE CONTRACTOR'S PROPERTY AND SHALL BE DISPOSED OF OFF-SITE IN A LAWFUL LOCATION AND MANNER. ALL FEES ASSOCIATED WITH OFF-SITE DISPOSAL SHALL BE PAID BY THE CONTRACTOR.
7. TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED, MONITORED, AND MAINTAINED BY THE CONTRACTOR IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLANS INCLUDED HEREIN.
8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH HAVE OCCURRED BY HIS/HER FAILURE NOT TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS/HER WORK. ITEMS SHALL BE REPLACED WITH THE SAME TYPE OF MATERIAL THAT WAS REMOVED OR DAMAGED DURING CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND ACTIVITIES OF HIS FORCES WITH THE OWNER, AND ABUTTING PROPERTY OWNERS TO MINIMIZE INTERFERENCE WITH EXISTING UTILITIES, PEDESTRIAN TRAFFIC, AND PROPERTY ACCESS. PEDESTRIAN AND VEHICLE ACCESS SHALL BE MAINTAINED AT ALL TIMES.
10. THE PLANS AND SPECIFICATIONS DO NOT INCLUDE PROVISIONS FOR CONSTRUCTION SAFETY. A HEALTH AND SAFETY PLAN MUST BE DEVELOPED BY CONTRACTOR PRIOR TO STARTING WORK.
11. METHODS, PROCEDURES AND THE SEQUENCES OF CONSTRUCTION (OTHER THAN THAT NOTED ON THE DRAWINGS) ARE THE RESPONSIBILITY OF THE CONTRACTORS.
12. THE CONTRACTOR SHALL KEEP ROADWAYS CLEAN AT ALL TIMES. ALL SOIL SPILLED, DROPPED, WASHED OR TRACKER ONTO ROADWAYS OR OTHER IMPERVIOUS SURFACES MUST BE REMOVED IMMEDIATELY BY CONTRACTOR.
13. THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN A JOB SITE FREE OF LITTER AND TRASH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE SITE AT THE END OF THE DAY TO CLEAN UP ANY TRASH OR LITTER GENERATED BY THE PERSONNEL AND SUBCONTRACTORS WORKING FOR THE CONTRACTOR AND DISPOSE OF DEBRIS PROPERLY.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING UP AND MAINTAINING ROAD CLOSURE SIGNS AND NOTIFYING THE PUBLIC/ADJOINING NEIGHBORS OF THE ROAD CLOSURE. ALL ROAD AND SIDEWALK CLOSURES SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
15. THE CONTRACTOR IS RESPONSIBLE FOR SITE SECURITY WHICH INCLUDES MEASURES TO ENSURE CARS/VEHICLES CANNOT DRIVE INTO THE CONSTRUCTION SITE.
16. ANY DAMAGE TO CITY ROADS, SIDEWALKS, CURB, STORM SEWER, WATER, OR SANITARY SEWER INFRASTRUCTURE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE PUBLIC WORKS AND WATER RESOURCES AT THE CONTRACTOR'S SOLE EXPENSE.



LOCATION MAP

SCALE: 1" = 2,000'
USGS 7.5 MINUTE IMAGE MAP FOR NEWARK, DELAWARE



SITE MAP

SCALE: 1" = 500'

OWNER / DEVELOPER

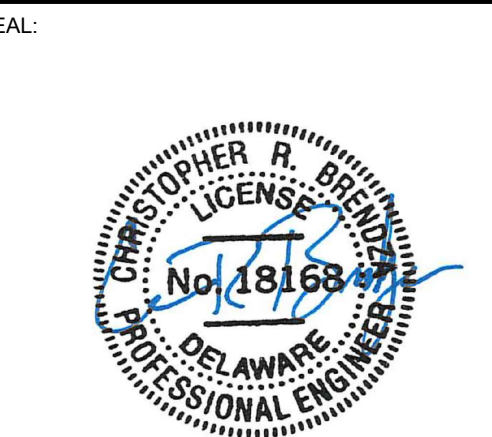
CITY OF NEWARK
220 S MAIN STREET
NEWARK, DE 19711
PHONE: 302-366-7000

PLAN PREPARER

JMT
121 CONTINENTAL DRIVE, SUITE 300
NEWARK, DE, 19713
PHONE: 302-266-0600

SHEET INDEX

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Sheet Number	Sheet Title
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L-101	EXISTING CONDITIONS
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L-105	GRADING PLAN
L-106	LANDSCAPE PLAN
L-107	ADD ALTERNATE
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L-503	DETAILS
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E-101	ELECTRICAL & LIGHTING PLAN
E-102	CUT SHEETS
ES-101	E&S PLAN
ES-102	DETAILS



PREPARED FOR:
CITY OF NEWARK
PARKS AND
RECREATION
220 S MAIN STREET
NEWARK, DE 19711



REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT:
EDNA C. DICKEY PARK
SITE IMPROVEMENTS

PROJECT LOCATION:
80 MADISON DRIVE
NEWARK, DELAWARE, 19711

PROJECT NUMBER:
20-03026-030

DATE: 07/26/2024 SCALE: AS NOTED

PLAN SET:
CONSTRUCTION PLAN

DRAWING TITLE:
COVER SHEET

DRAWING NUMBER:
L-001

PLAN DATA

TAX PARCEL NUMBER: 18-025-00-336
OWNER: CITY OF NEWARK
ADDRESS: 100 THORN LANE
NEWARK, DE 19711
ZONING: PL
HORIZONTAL DATUM: DELAWARE STATE PLANE COORDINATES
(NAD83-2011, USFT)
VERTICAL DATUM: NAVD88 (GEIOD 18)
SITE BENCHMARKS: MAG NAILS GPS-104, GPS-105, & GPS-107 AS
DEPICTED ON PLAN.

DRAINAGE IMPROVEMENTS CURRENTLY UNDERWAY
UNDER SEPARATE CONTRACT. CONTRACTOR TO
CONFIRM EXISTING CONDITIONS IN THIS AREA.

SITE BENCHMARK
MAG NAIL GPS-107
N: 610667.1032
E: 557566.9896
Z: 137.87

SITE BENCHMARK
MAG NAIL GPS-104
N: 610538.9760
E: 556853.3259
Z: 125.79

CATCH BASIN
TOP = 125.13
INV. = 122.99

CATCH BASIN
TOP = 123.47
INV. = 121.21

CATCH BASIN
TOP = 123.65
INV. (IN CMP) = 120.66
INV. (IN RCP) = 120.55
INV. (OUT) = 120.47

CATCH BASIN
TOP = 122.33
INV. (IN E) = 120.00
INV. (IN N) = 119.74
INV. (OUT) = 119.74

SITE BENCHMARK
MAG NAIL GPS-105
N: 610196.8052
E: 557048.2331
Z: 122.59

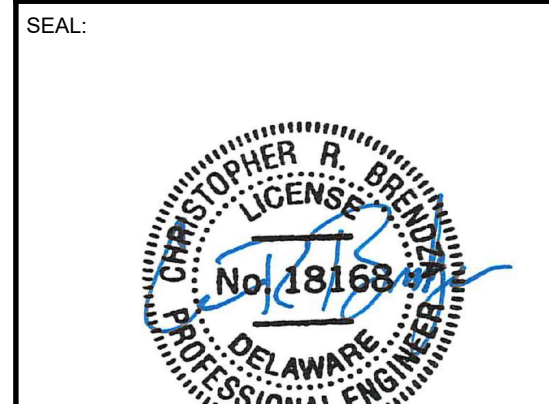
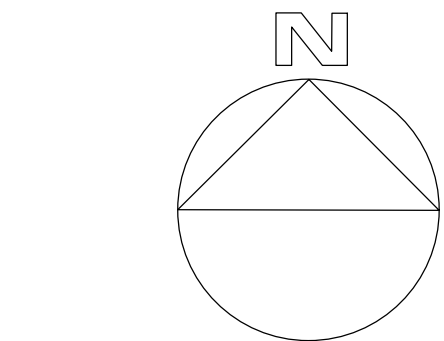
STORM MANHOLE
TOP = 122.73
INV. (IN) = 119.82
INV. (OUT) = 119.71

CATCH BASIN
TOP = 124.40
INV. (IN) = 122.04
INV. (OUT) = 121.99

CATCH BASIN
TOP = 126.27
INV. = 123.23

LEGEND

- DRAINAGE IMPROVEMENTS
CURRENTLY UNDERWAY
UNDER SEPARATE CONTRACT
- CONTOUR
- INDEX CONTOUR
- SPOT ELEVATION
- DEPRESSION CONTOUR
- SANITARY CLEANOUT
- CATCH BASIN
- STORM MANHOLE
- STORM PIPE
- WATER METER
- WATER VALVE
- WATER SERVICE
- FIRE HYDRANT
- GAS VALVE
- TELECOMM PEDESTAL
- UNIDENTIFIED UTILITY PEDESTAL
- DOT VAULT
- HANDICAPPED PARKING
- UTILITY POLE
- LIGHT POLE
- GUY WIRE
- SIGN
- BOLLARD
- DECIDUOUS TREE
- EVERGREEN TREE
- SHRUB/BUSH
- TREE STUMP
- FENCELINE
- OVERHEAD WIRES
- CONCRETE
- BLACKTOP PAVING
- SAND
- LANDSCAPING



PREPARED FOR:
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PARKS AND
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220 S MAIN STREET
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REVISIONS

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PROJECT:
EDNA C. DICKEY PARK
SITE IMPROVEMENTS

PROJECT LOCATION:
60 MADISON DRIVE
NEWARK, DELAWARE, 19711
PROJECT NUMBER:
20-03026-030

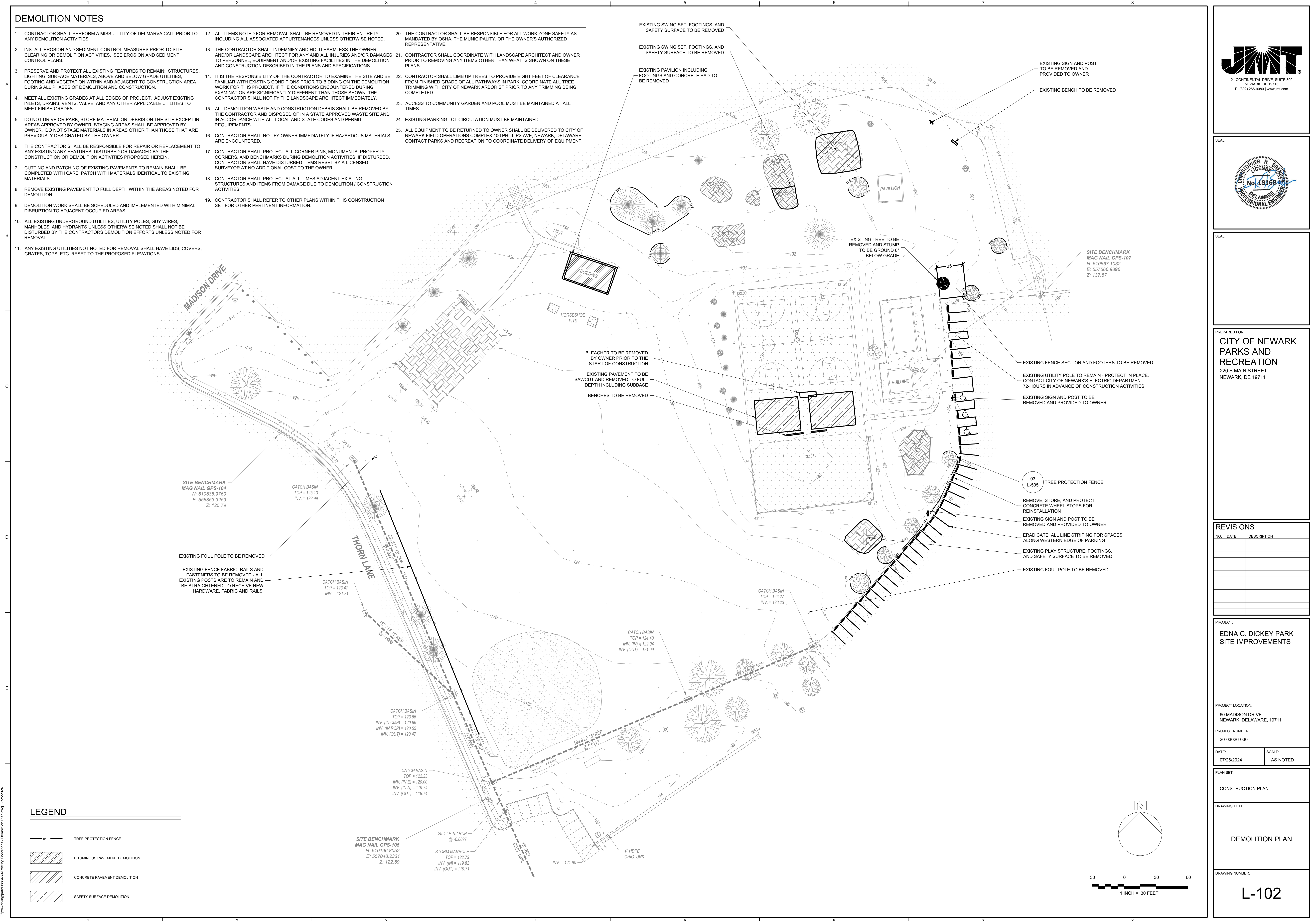
DATE:
07/26/2024
SCALE:
AS NOTED

PLAN SET:
CONSTRUCTION PLAN

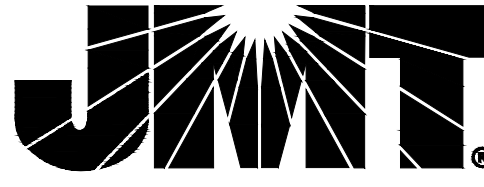
DRAWING TITLE:
EXISTING CONDITIONS

DRAWING NUMBER:
L-101

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1. CONTRACTOR SHALL PERFORM A MISS UTILITY OF DELMARVA CALL PRIOR TO ANY DEMOLITION ACTIVITIES. 2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE CLEARING OR DEMOLITION ACTIVITIES. SEE EROSION AND SEDIMENT CONTROL PLANS. 3. PRESERVE AND PROTECT ALL EXISTING FEATURES TO REMAIN: STRUCTURES, LIGHTING, SURFACE MATERIALS, ABOVE AND BELOW GRADE UTILITIES, FOOTING AND VEGETATION WITHIN AND ADJACENT TO CONSTRUCTION AREA DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION. 4. MEET ALL EXISTING GRADES AT ALL EDGES OF PROJECT. ADJUST EXISTING INLETS, DRAINS, VENTS, VALVE, AND ANY OTHER APPLICABLE UTILITIES TO MEET FINISH GRADES. 5. DO NOT DRIVE OR PARK, STORE MATERIAL OR DEBRIS ON THE SITE EXCEPT IN AREAS APPROVED BY OWNER. STAGING AREAS SHALL BE APPROVED BY OWNER. DO NOT STAGE MATERIALS IN AREAS OTHER THAN THOSE THAT ARE PREVIOUSLY DESIGNATED BY THE OWNER. 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT TO ANY EXISTING ANY FEATURES DISTURBED OR DAMAGED BY THE CONSTRUCTION OR DEMOLITION ACTIVITIES PROPOSED HEREIN. 7. CUTTING AND PATCHING OF EXISTING PAVEMENTS TO REMAIN SHALL BE COMPLETED WITH CARE. PATCH WITH MATERIALS IDENTICAL TO EXISTING MATERIALS. 8. REMOVE EXISTING PAVEMENT TO FULL DEPTH WITHIN THE AREAS NOTED FOR DEMOLITION. 9. DEMOLITION WORK SHALL BE SCHEDULED AND IMPLEMENTED WITH MINIMAL DISRUPTION TO ADJACENT OCCUPIED AREAS. 10. ALL EXISTING UNDERGROUND UTILITIES, UTILITY POLES, GUY WIRES, MANHOLES, AND HYDRANTS UNLESS OTHERWISE NOTED SHALL NOT BE DISTURBED BY THE CONTRACTORS DEMOLITION EFFORTS UNLESS NOTED FOR REMOVAL. 11. ANY EXISTING UTILITIES NOT NOTED FOR REMOVAL SHALL HAVE LIDS, COVERS, GRATES, TOPS, ETC. RESET TO THE PROPOSED ELEVATIONS.		12. ALL ITEMS NOTED FOR REMOVAL SHALL BE REMOVED IN THEIR ENTIRETY, INCLUDING ALL ASSOCIATED APPURTENANCES UNLESS OTHERWISE NOTED. 13. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND/OR LANDSCAPE ARCHITECT FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES IN THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS. 14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THE DEMOLITION WORK FOR THIS PROJECT. IF THE CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY. 15. ALL DEMOLITION WASTE AND CONSTRUCTION DEBRIS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS. 16. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED. 17. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS, AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER. 18. CONTRACTOR SHALL PROTECT AT ALL TIMES ADJACENT EXISTING STRUCTURES AND ITEMS FROM DAMAGE DUE TO DEMOLITION / CONSTRUCTION ACTIVITIES. 19. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.		20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE SAFETY AS MANDATED BY OSHA, THE MUNICIPALITY, OR THE OWNER'S AUTHORIZED REPRESENTATIVE. 21. CONTRACTOR SHALL COORDINATE WITH LANDSCAPE ARCHITECT AND OWNER PRIOR TO REMOVING ANY ITEMS OTHER THAN WHAT IS SHOWN ON THESE PLANS. 22. CONTRACTOR SHALL LIMB UP TREES TO PROVIDE EIGHT FEET OF CLEARANCE FROM FINISHED GRADE OF ALL PATHWAYS IN PARK. COORDINATE ALL TREE TRIMMING WITH CITY OF NEWARK ARBORIST PRIOR TO ANY TRIMMING BEING COMPLETED. 23. ACCESS TO COMMUNITY GARDEN AND POOL MUST BE MAINTAINED AT ALL TIMES. 24. EXISTING PARKING LOT CIRCULATION MUST BE MAINTAINED. 25. ALL EQUIPMENT TO BE RETURNED TO OWNER SHALL BE DELIVERED TO CITY OF NEWARK FIELD OPERATIONS COMPLEX 406 PHILLIPS AVE. NEWARK, DELAWARE. CONTACT PARKS AND RECREATION TO COORDINATE DELIVERY OF EQUIPMENT.	
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121 CONTINENTAL DRIVE, SUITE 300 | NEWARK, DE 19713
P: (302) 266-9050 | www.jmt.com

SEAL:



SEAL:

PREPARED FOR:

CITY OF NEWARK
PARKS AND RECREATION
220 S MAIN STREET
NEWARK, DE 19711

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT:

EDNA C. DICKEY PARK
SITE IMPROVEMENTS

PROJECT LOCATION:

60 MADISON DRIVE
NEWARK, DELAWARE, 19711

PROJECT NUMBER:

20-03026-030

DATE:

07/26/2024

SCALE:

AS NOTED

PLAN SET:

CONSTRUCTION PLAN

DRAWING TITLE:

DEMOLITION PLAN

DRAWING NUMBER:

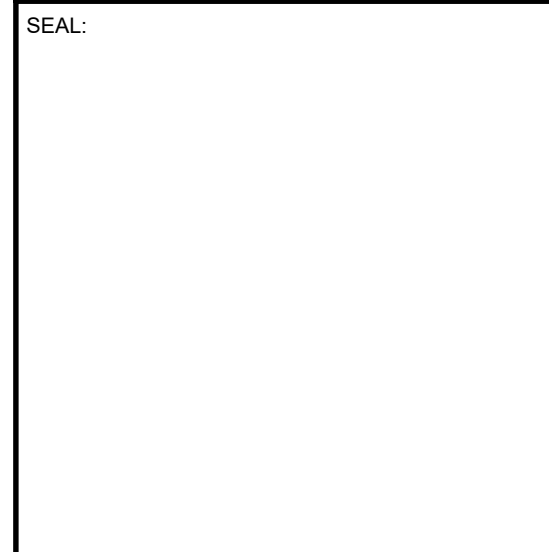
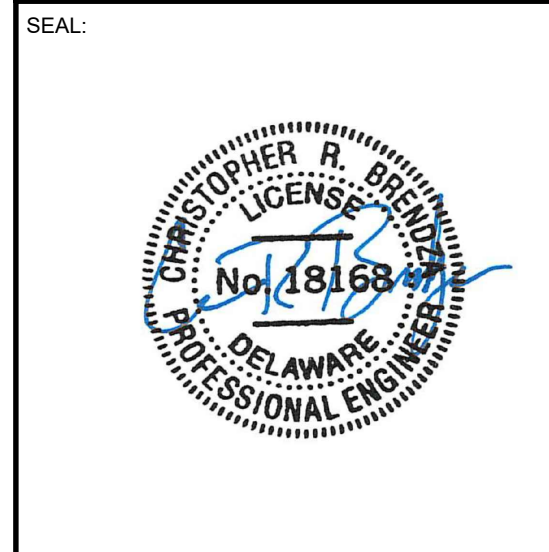
L-102

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SHEET NOTES

- DO NOT SCALE DRAWINGS.
- ALL DISTURBED AREAS OF SITE WITHOUT PROPOSED SITE FEATURES, SHALL RECEIVE TOPSOIL AND BE SEEDED PER SPECIFICATIONS
- THE CONTRACTOR SHALL HAVE ALL REQUIRED SUBMITTAL APPROVALS PRIOR TO BEGINNING THE WORK OF ORDERING MATERIALS.
- DRAWINGS FOR DESIGN INTENT ONLY. FIELD ADJUSTMENTS MAY BE REQUIRED WITH WRITTEN AUTHORIZATION BY OWNER AND/OR LANDSCAPE ARCHITECT.
- CONSULT OWNER AND/OR LANDSCAPE ARCHITECT FOR FINAL IN-THE-FIELD PLACEMENT OF SITE AMENITIES.
- LINE STRIPING TO BE EPOXY RESIN (WHITE) EXCEPT AS NOTED IN DETAIL 01L-502 FOR ACCESSIBLE PARKING.

LEGEND	
MATERIALS PLAN	
SIDELINE FENCE	X X
BITUMINOUS PAVEMENT	
BITUMINOUS SEAL COATING	
CONCRETE PAVEMENT	
SAFETY SURFACING	
LAWN	



PREPARED FOR:
CITY OF NEWARK PARKS AND RECREATION
220 S MAIN STREET
NEWARK, DE 19711



REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT:
EDNA C. DICKEY PARK SITE IMPROVEMENTS

PROJECT LOCATION:
60 MADISON DRIVE
NEWARK, DELAWARE, 19711

PROJECT NUMBER:
20-03026-030

DATE: 07/26/2024 SCALE: AS NOTED

PLAN SET:
CONSTRUCTION PLAN

DRAWING TITLE:

MATERIALS PLAN

DRAWING NUMBER:

L-103

CURVE #	START STATION	END STATION	RADIUS	LENGTH	CHORD DIRECTION	START POINT	END POINT
C100	100+00.58	100+50.73	75.00	50.15	N15° 08' 10.13"E	N: 610,661.5954, E: 557,484.8846	N: 610,709.1125, E: 557,497.7378
C101	100+50.73	102+59.37	83.00	208.64	N37° 43' 05.50"W	N: 610,709.1125, E: 557,497.7378	N: 610,834.0048, E: 557,401.1467
C102	104+07.38	104+85.39	197.00	78.01	S81° 36' 52.36"W	N: 610,784.0393, E: 557,261.8278	N: 610,772.7369, E: 557,185.1535
C103	104+85.39	105+89.65	93.00	104.26	S60° 50' 27.93"W	N: 610,772.7369, E: 557,185.1535	N: 610,724.5546, E: 557,098.7961
C200	200+09.41	200+83.71	75.00	74.30	S15° 20' 54.99"W	N: 610,692.2724, E: 557,089.4565	N: 610,623.5167, E: 557,070.5844
C201	201+61.05	202+16.24	250.00	55.19	S50° 03' 12.38"W	N: 610,567.6324, E: 557,017.1258	N: 610,532.2681, E: 556,974.9004
C300	300+00.00	300+78.28	81.00	78.28	N66° 40' 57.43"W	N: 610,730.1924, E: 557,508.0922	N: 610,759.9843, E: 557,438.9741

LINE #	START STATION	END STATION	LENGTH	DIRECTION	START POINT	END POINT
L100	100+00.00	100+00.58	0.58	N04° 01' 16.57"W	N: 610,661.0171, E: 557,484.9252	N: 610,661.5954, E: 557,484.8846
L101	102+59.37	104+07.38	148.01	S70° 16' 12.16"W	N: 610,834.0048, E: 557,401.1467	N: 610,784.0393, E: 557,261.8278
L200	200+00.00	200+09.41	9.41	S13° 01' 54.77"E	N: 610,701.4436, E: 557,087.3338	N: 610,692.2724, E: 557,089.4565
L201	200+83.71	201+61.05	77.34	S43° 43' 44.74"W	N: 610,623.5167, E: 557,070.5844	N: 610,567.6324, E: 557,017.1258
L202	202+16.24	202+84.98	68.74	S56° 22' 40.02"W	N: 610,532.2681, E: 556,974.9004	N: 610,494.2054, E: 556,917.6595



PREPARED FOR:
**CITY OF NEWARK
PARKS AND
RECREATION**
220 S MAIN STREET
NEWARK, DE 19711



NO.	DATE	DESCRIPTION

PROJECT:
**EDNA C. DICKEY PARK
SITE IMPROVEMENTS**

PROJECT LOCATION:
60 MADISON DRIVE
NEWARK, DELAWARE, 19711

PROJECT NUMBER:
20-03026-030

DATE:
07/26/2024

SCALE:
AS NOTED

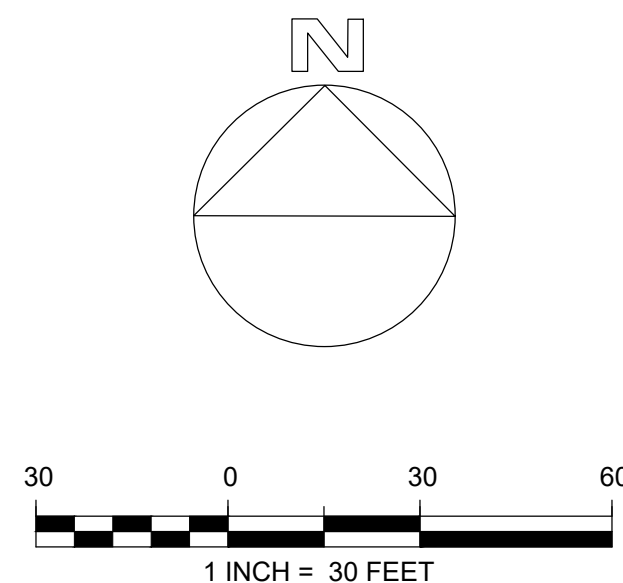
PLAN SET:
CONSTRUCTION PLAN

DRAWING TITLE:
LAYOUT PLAN

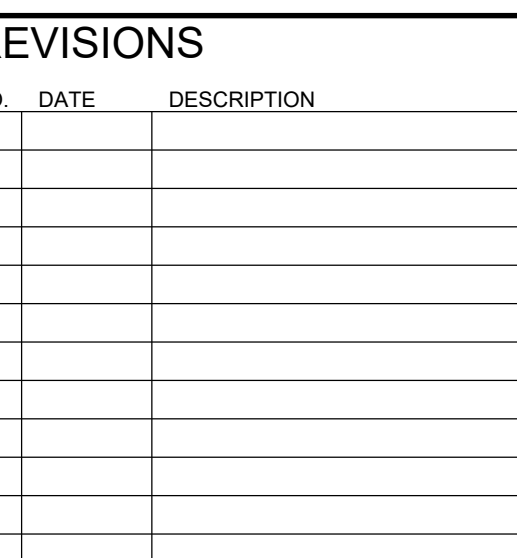
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L-104

1. WHERE PROPOSED PAVEMENT ABUTS EXISTING PAVEMENT, MATCH LINE AND GRADE OF THE EXISTING PAVEMENT.
2. ALL GRADING SHALL BE SMOOTH AND CONTINUOUS. TOPS AND BOTTOMS OF ALL SLOPES SHALL BE ROUND.
3. PLAN LOCATIONS AND DIMENSIONS SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVES. SUCH PLAN CHANGES, SHOULD THEY BECOME NECESSARY, ARE SUBJECT TO CITY STANDARDS, SPECIFICATIONS, AND ORDINANCES.
4. PROPOSED WALKS AND TRAILS SHALL GENERALLY FOLLOW EXISTING GRADE AND NOT IMPIDE THE NATURAL FLOW OF WATER ACROSS THE LAND. WALKS SHALL BE INSTALLED WITH A MAXIMUM TWO PERCENT (2%) CROSS SLOPE AND LESS THAN 5% LONGITUDINAL SLOPE. UNDER NO CIRCUMSTANCES SHALL THE PROPOSED WALK CREATE PONDING WATER. GRADING FOR WALKS SHALL ONLY DISTURB WHAT IS NECESSARY TO CONSTRUCT WALK AND MAINTAIN DRAINAGE FLOW.
5. PROPOSED GRADES SHALL MEET EXISTING GRADES AT LIMIT OF WORK.
6. ADJUST EXISTING AND PROPOSED UTILITIES TO MEET FINAL DESIGN CONDITIONS AS NECESSARY.
7. FINISH GRADES OF PAVEMENTS AND SOIL ALONG BOTTOM OF CURBS AND WALLS SHALL HAVE A CONSTANT SLOPE UNLESS INDICATED BY SPOT ELEVATIONS.
8. ANY DISCREPANCY BETWEEN FIELD CONDITIONS AND DOCUMENTED EXISTING OR PROPOSED CONDITIONS SHALL BE REPORTED TO ENGINEER AND LANDSCAPE ARCHITECT IN WRITING.
9. AT HIGH POINTS AND LOW POINTS IN PAVED AREAS, SLOPES SHALL NOT BE GRADED TO A POINT OR SHARP RIDGE; GRADES SHALL BE TRANSITIONED. AVOID LOW SPOTS IN PAVEMENTS THAT MAY RESULT IN PUDDLING.
10. ALL WALKWAYS AND PAVED AREAS ARE GRADED TO BE LESS THAN 5% SLOPE. CONTRACTOR MUST VERIFY THAT NO SLOPES EXCEED 5% MAXIMUM.

HP HIGH POINT
LP LOW POINT
EX ASSUMED EXISTING ELEVATION



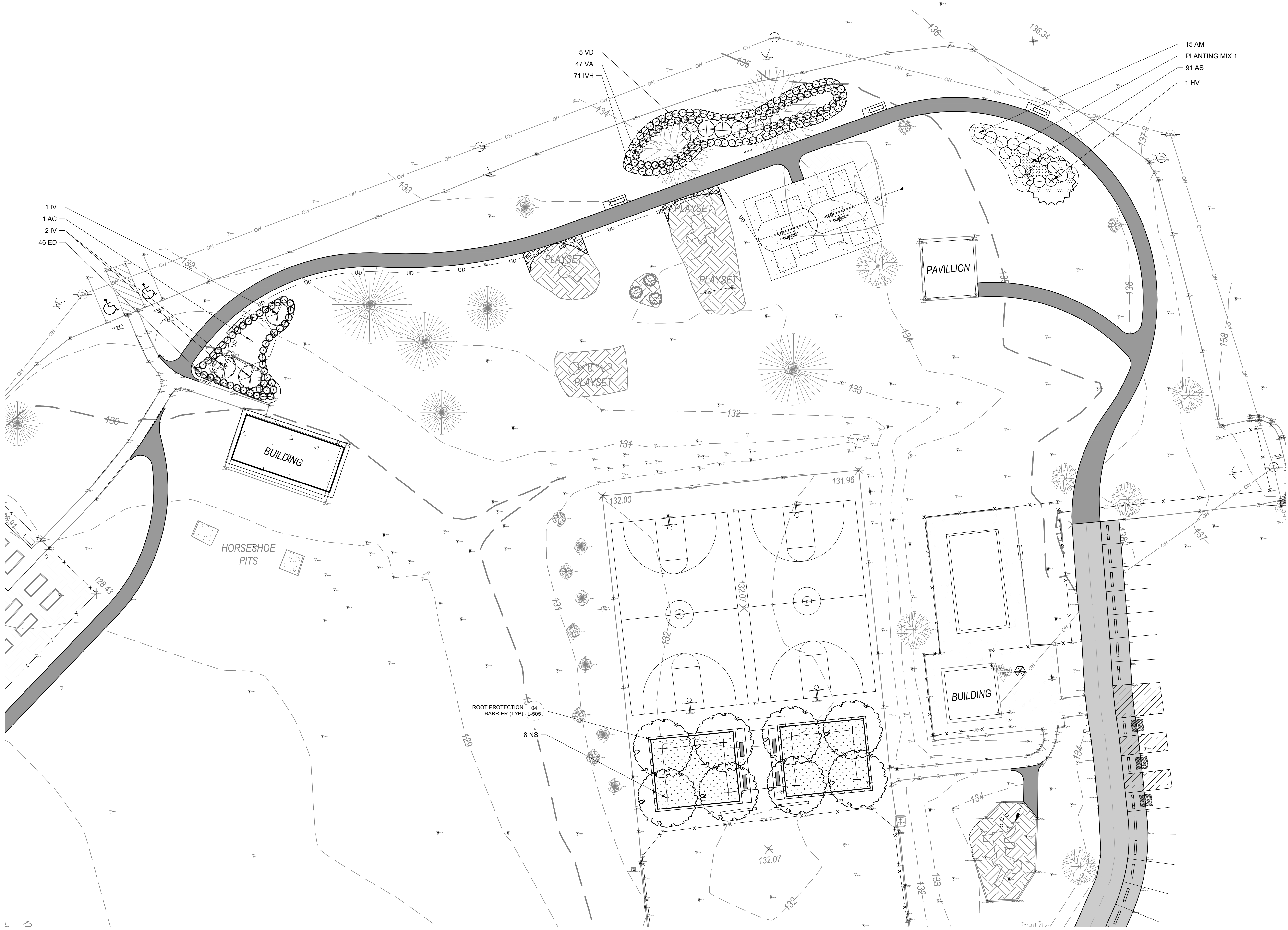
PREPARED FOR:
CITY OF NEWARK
PARKS AND
RECREATION
220 S MAIN STREET
NEWARK, DE 19711



DRAWING NUMBER:

-105

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TREES								
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACE	MATURE SPREAD	COMMENTS
AC	1	Amelanchier canadensis	Canadian Serviceberry	6' HT.	B&B/CONT.	AS SHOWN	15' - 20'	Clump
IVH	1	Hamamelis virginiana	Witch Hazel	6' HT.	B&B/CONT.	AS SHOWN	15' - 20'	
NS	8	Nyssa sylvatica	Black Gum	2" CAL.	B&B	AS SHOWN	20' - 30'	

SHRUBS								
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACE	MATURE SPREAD	COMMENTS
AM	15	Aronia melanocarpa 'Morton'	Black Chokeberry 'Morton'	#3	CONT.	AS SHOWN	3' - 4'	
IV	3	Ilex verticillata	Winter Berry	#5	CONT.	AS SHOWN	6' - 10'	
IVH	71	Itea virginica 'Little Henry'	Virginia Sweetberry 'Little Henry'	#3	CONT.	AS SHOWN	2' - 3'	
VA	47	Viburnum acerifolium	Maple Leaf Viburnum	#3	CONT.	AS SHOWN	2' - 4'	
VD	5	Viburnum dentatum 'Blue Muffin'	Arrowwood Viburnum 'Blue Muffin'	#4	CONT.	AS SHOWN	5' - 7'	

LEGEND

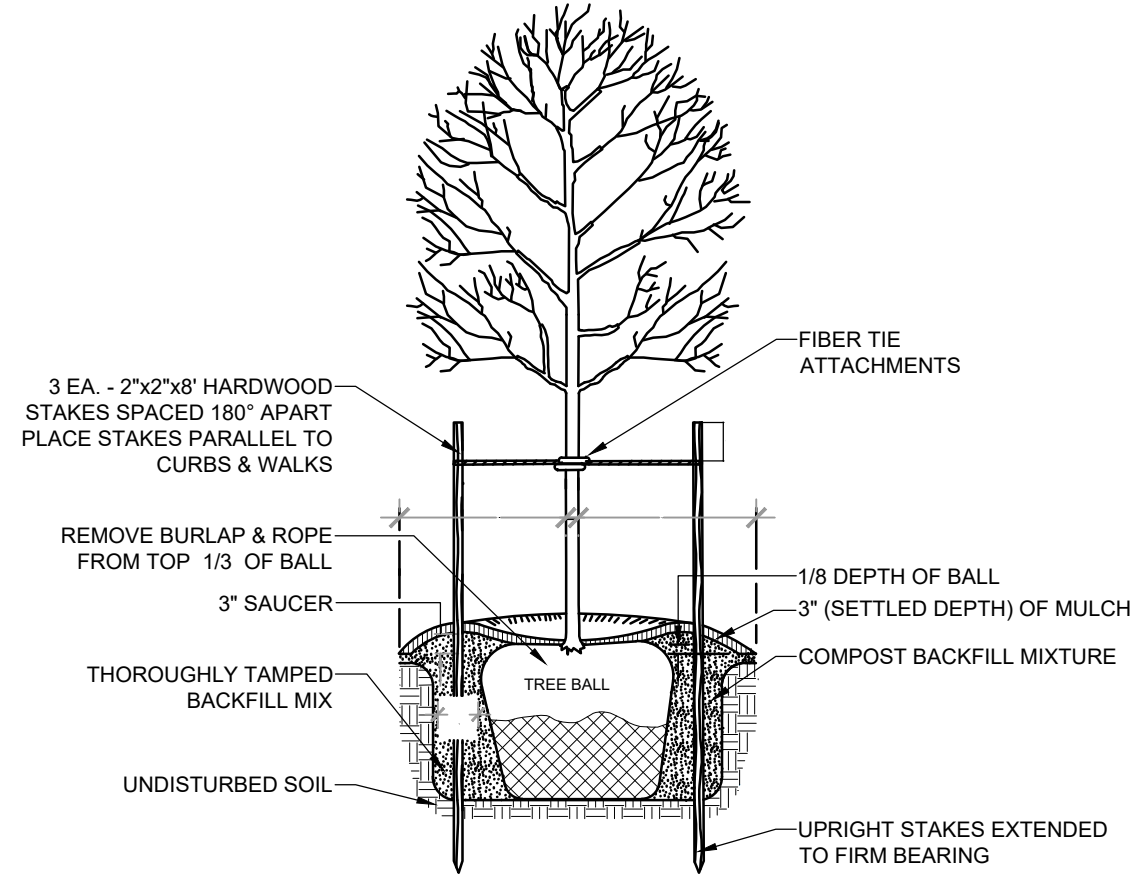
PLANT MIX 1 - WHORLED MILKWEED AND TURTLE HEAD

PLANTING NOTES

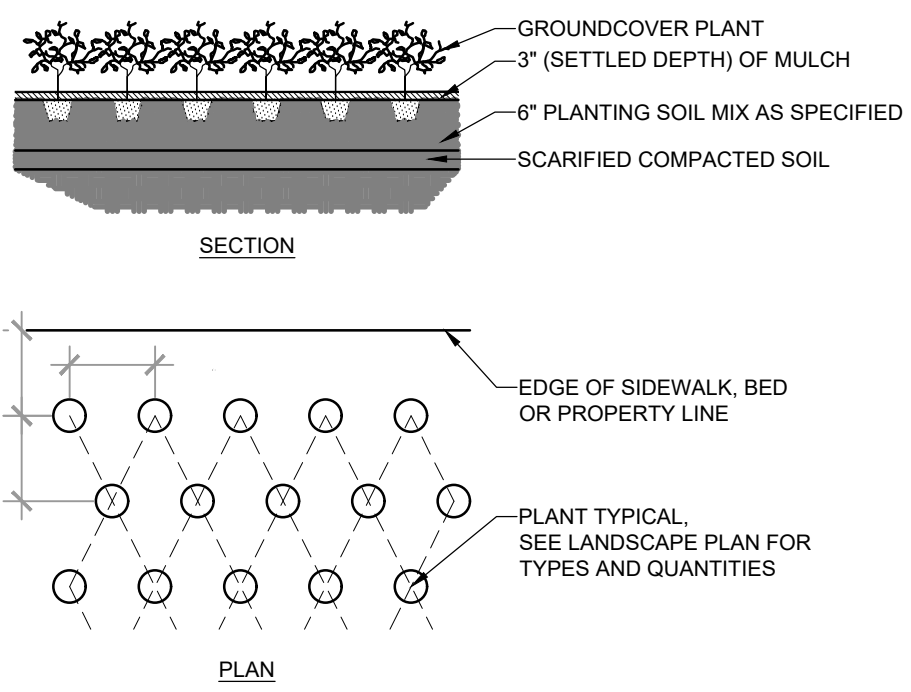
- LANDSCAPE PLANS ARE ONLY FOR LANDSCAPE PLANTING PURPOSES. REFER TO OTHER PLAN SHEETS FOR GRADING, DRAINAGE, EXISTING TREES TO BE REMOVED, ETC.
- CONTRACTOR TO COORDINATE WITH LANDSCAPE ARCHITECT FOR RELOCATION OF PLANTINGS DUE TO ELECTRICAL / UTILITY CONFLICTS.
- RESEED ALL DISTURBED AREAS.
- IF THE QUANTITIES LISTED IN THE PLANTING SCHEDULE DO NOT REFLECT THE QUANTITIES SHOWN IN THE ON THE PLANTING PLAN, PROVIDE THE QUANTITY OF EACH PLANT AS INDICATED ON THE PLANTING PLAN

INTERIOR - BUTTERFLY GARDEN								
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACE	MATURE SPREAD	COMMENTS
AS	91	Asclepias syriaca	Common Milkweed	#1	CONT.	1'	0'-9" - 1'	
ED	46	Eutrochium dubium	Joe-Pye Weed "Little Joe"	#3	CONT.	AS SHOWN	3'-0"	

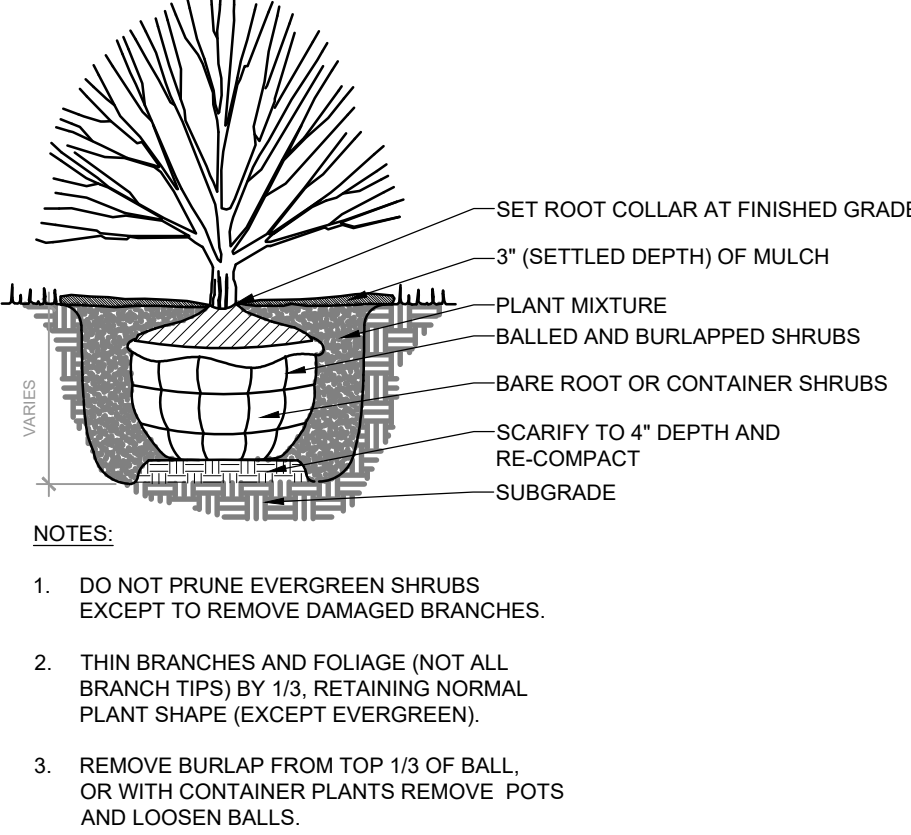
PLANTING MIX 1								
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACE	MATURE SPREAD	COMMENTS
AV	86	Asclepias verticillata	Whorled Milkweed	#1	CONT.	2'	1' - 2'	
CG	57	Chelone glabra	Turtle Head	#1	CONT.	3'	1' - 3'	



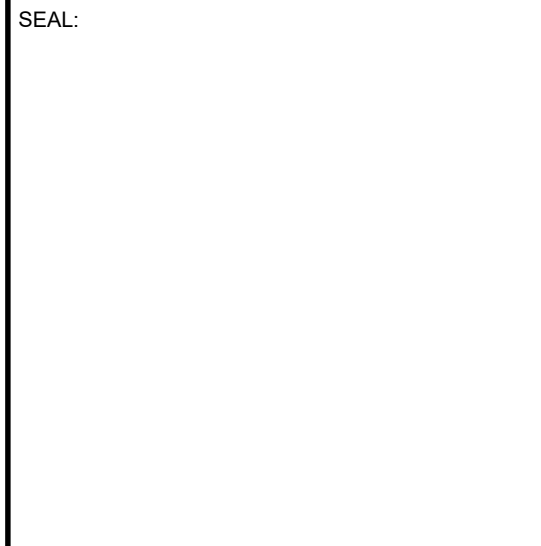
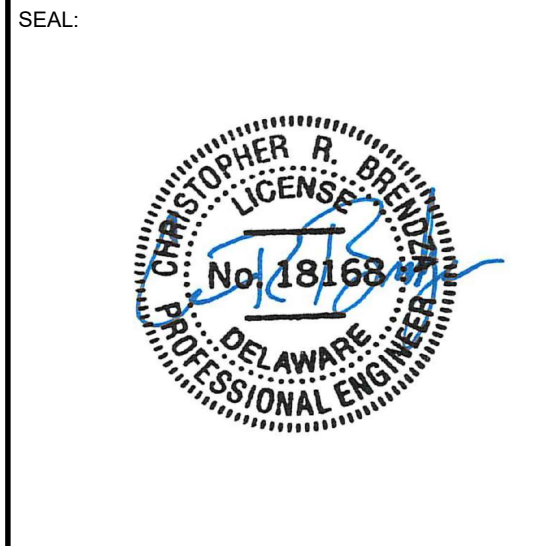
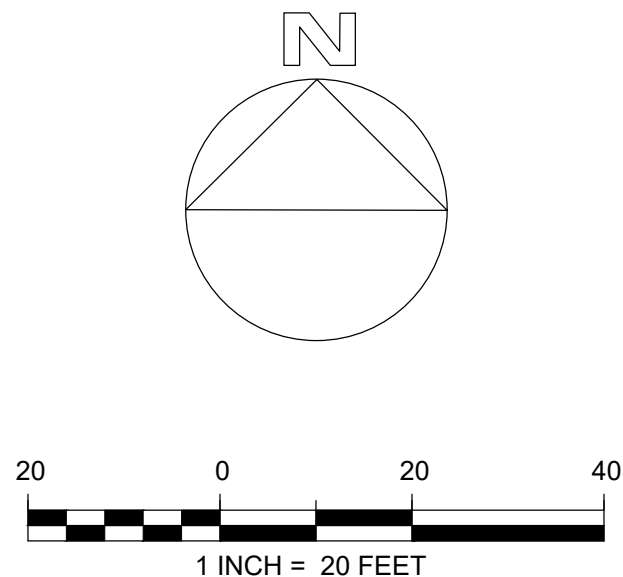
01 TREE PLANTING - BALL & BURLAP
L-106 NOT TO SCALE



02 GROUND COVER PLANTING
L-106 NOT TO SCALE



03 SHRUB PLANTING
L-106 NOT TO SCALE



PREPARED FOR:
CITY OF NEWARK
PARKS AND RECREATION
220 S MAIN STREET
NEWARK, DE 19711



REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT:
EDNA C. DICKEY PARK
SITE IMPROVEMENTS

PROJECT LOCATION:
60 MADISON DRIVE
NEWARK, DELAWARE, 19711

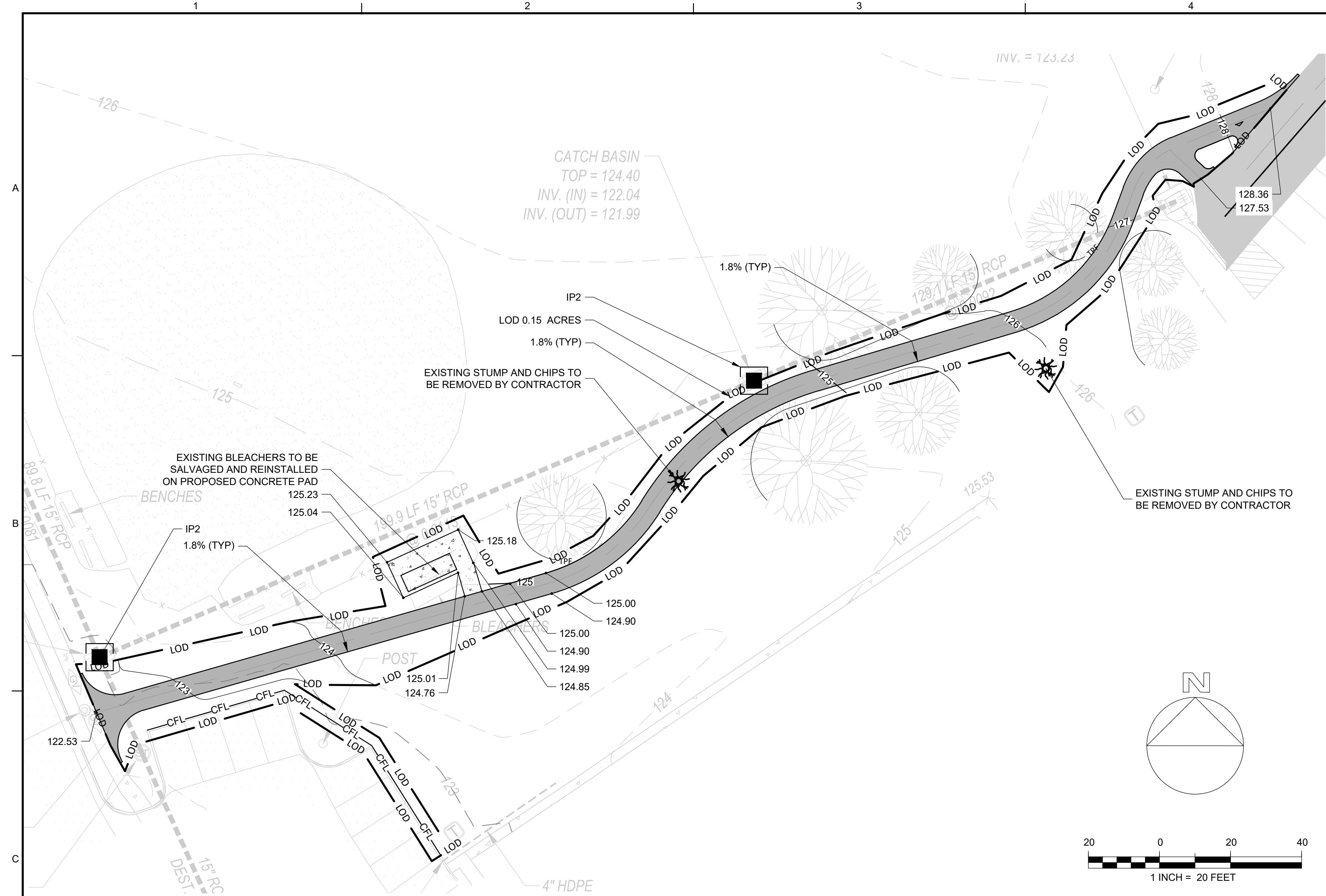
PROJECT NUMBER:
20-03026-030

DATE: 07/26/2024 SCALE: AS NOTED

PLAN SET:
CONSTRUCTION PLAN

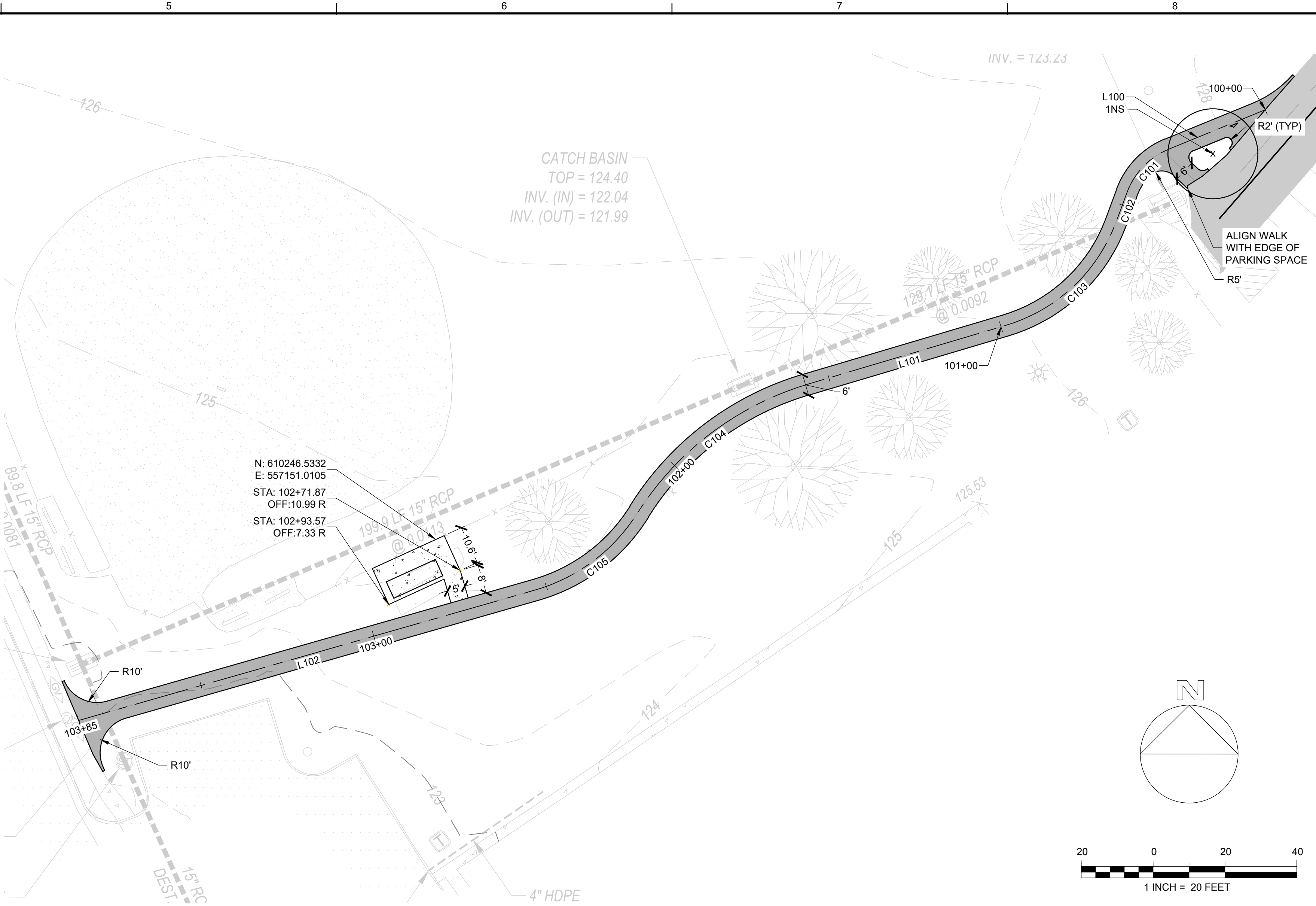
DRAWING TITLE:
LANDSCAPE PLAN

DRAWING NUMBER:
L-106



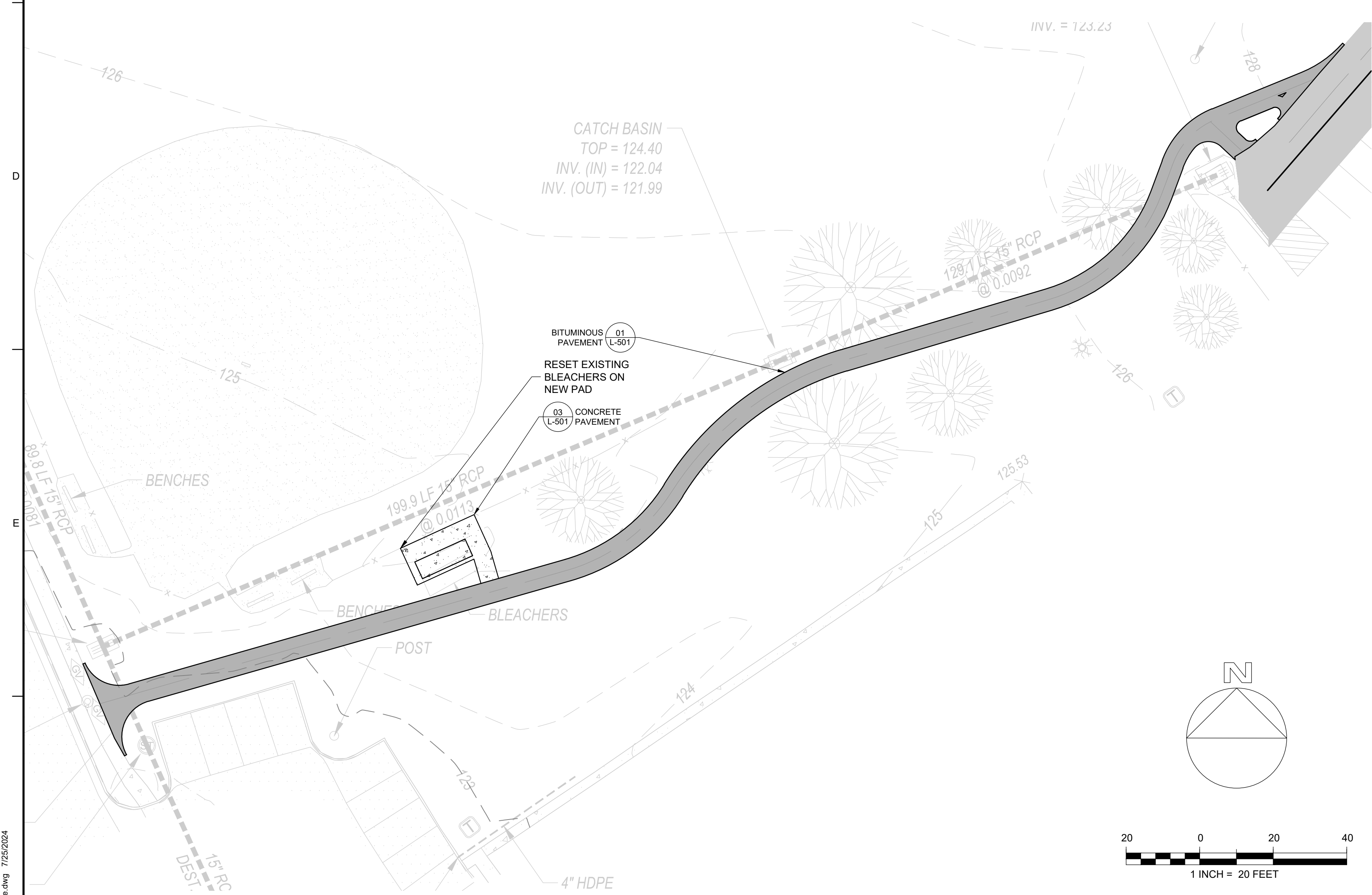
01
L-107
1" = 20'

DEMOLITION, EROSION AND SEDIMENT CONTROL, AND GRADING PLAN



02
L-107
1" = 20'

SITE LAYOUT AND PLANTING PLAN



03
L-107
1" = 20'

MATERIALS PLAN

CURVE #	START STATION	END STATION	RADIUS	LENGTH	CHORD DIRECTION	START POINT	END POINT
C101	100+28.92	100+46.54	21.00	17.62	S43° 44' 29.29"W	N: 610,355.1417, E: 557,355.1133	N: 610,342.7800, E: 557,343.2831
C102	100+46.54	100+55.52	427.00	8.98	S20° 18' 10.96"W	N: 610,342.7800, E: 557,343.2831	N: 610,334.3579, E: 557,340.1672
C103	100+55.52	100+98.64	47.00	43.12	S47° 11' 14.18"W	N: 610,334.3579, E: 557,340.1672	N: 610,306.0715, E: 557,309.6343
C104	101+56.00	102+17.01	85.00	61.01	S52° 54' 23.20"W	N: 610,289.7519, E: 557,254.6495	N: 610,253.7403, E: 557,207.0225
C105	102+17.01	102+53.41	50.00	36.41	S53° 12' 13.19"W	N: 610,253.7403, E: 557,207.0225	N: 610,232.4119, E: 557,178.5085

LINE #	START STATION	END STATION	LENGTH	DIRECTION	START POINT	END POINT
L100	100+00.00	100+28.92	28.92	S67° 46' 56.60"W	N: 610,366.0767, E: 557,381.8851	N: 610,355.1417, E: 557,355.1133
L101	100+98.64	101+56.00	57.36	S73° 28' 08.41"W	N: 610,306.0715, E: 557,309.6343	N: 610,289.7519, E: 557,254.6495
L102	102+53.41	103+85.44	132.02	S74° 03' 48.39"W	N: 610,232.4119, E: 557,178.5085	N: 610,196.1615, E: 557,051.5579

TREES								
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACE	MATURE SPREAD	COMMENTS
NS	1	Nyssa sylvatica	Black Gum	6' HT	B&B	AS SHOWN	20' - 30'	

LEGEND	
MATERIALS PLAN	
SIDELINE FENCE	— X — X —
BITUMINOUS PAVEMENT	— [Pattern] —
CONCRETE PAVEMENT	— [Pattern] —

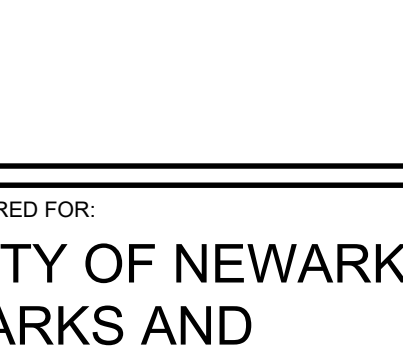
NOTES

1. ALL NOTES FROM CORRESPONDING DRAWINGS ARE APPLICABLE TO ADD ALTERNATE PLAN OPTIONS. PLEASE SEE EROSION AND SEDIMENT CONTROL PLAN, DEMOLITION PLAN, SITE LAYOUT PLAN, PLANTING PLAN, AND MATERIALS PLAN FOR MORE INFORMATION.



121 CONTINENTAL DRIVE, SUITE 300 | NEWARK, DE 19713
P: (302) 206-0500 www.jmt.com

SEAL:


SEAL:


PREPARED FOR:
**CITY OF NEWARK
PARKS AND RECREATION**
220 S MAIN STREET
NEWARK, DE 19711



**NEWARK
DELAWARE**
Committed to Service Excellence

NO.	DATE	DESCRIPTION

PROJECT:
**EDNA C. DICKEY PARK
SITE IMPROVEMENTS**

PROJECT LOCATION:
60 MADISON DRIVE
NEWARK, DELAWARE, 19711

PROJECT NUMBER:
20-03026-030

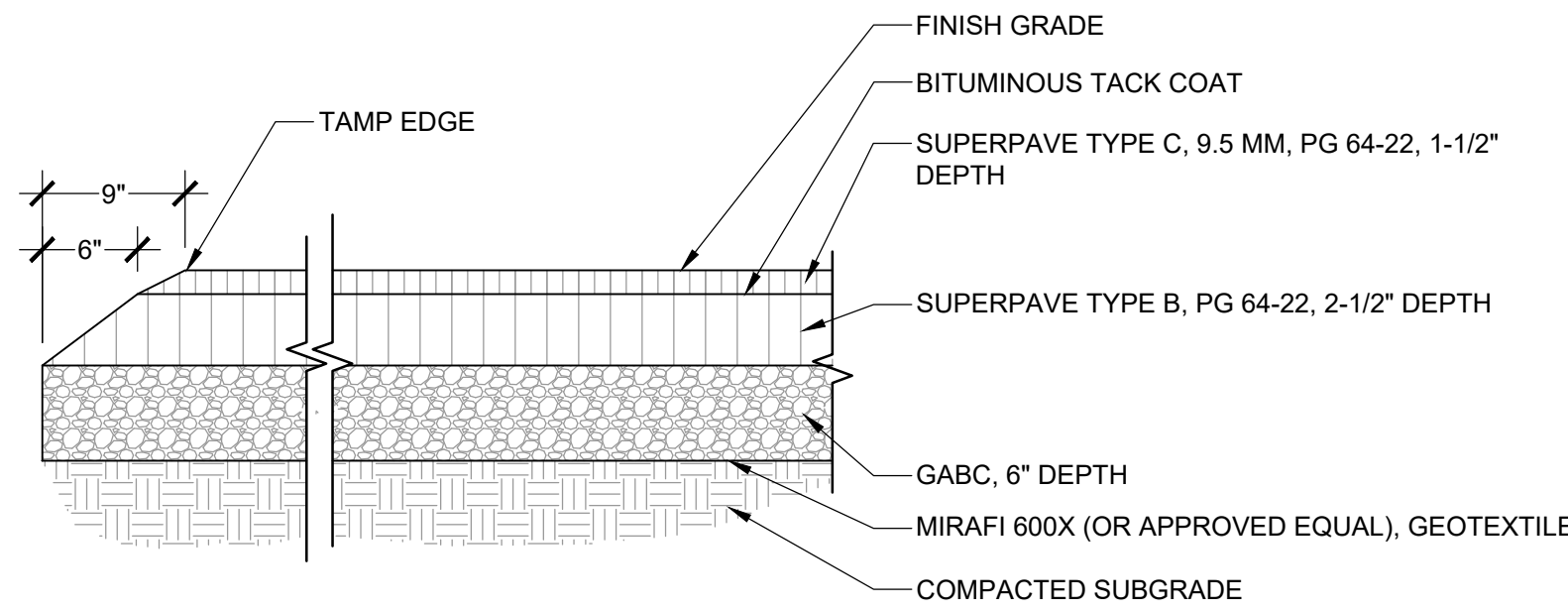
DATE:
07/26/2024

SCALE:
AS NOTED

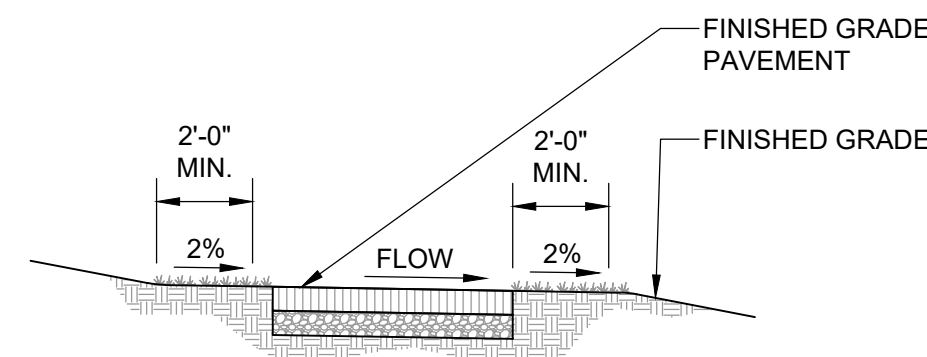
PLAN SET:
CONSTRUCTION PLAN

DRAWING TITLE:
ADD ALTERNATE

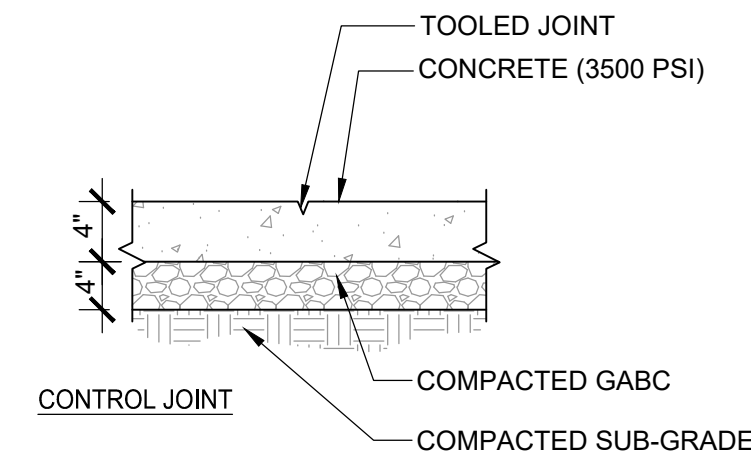
DRAWING NUMBER:
L-107



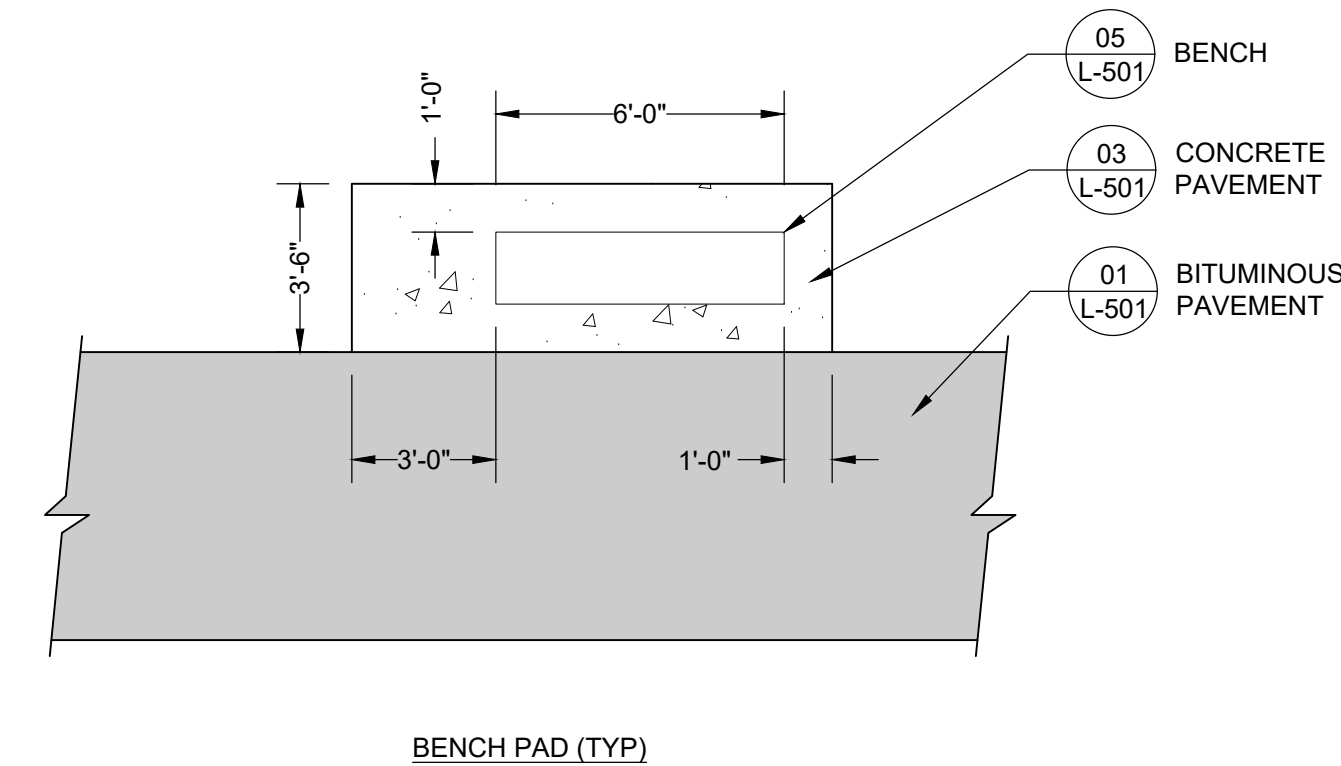
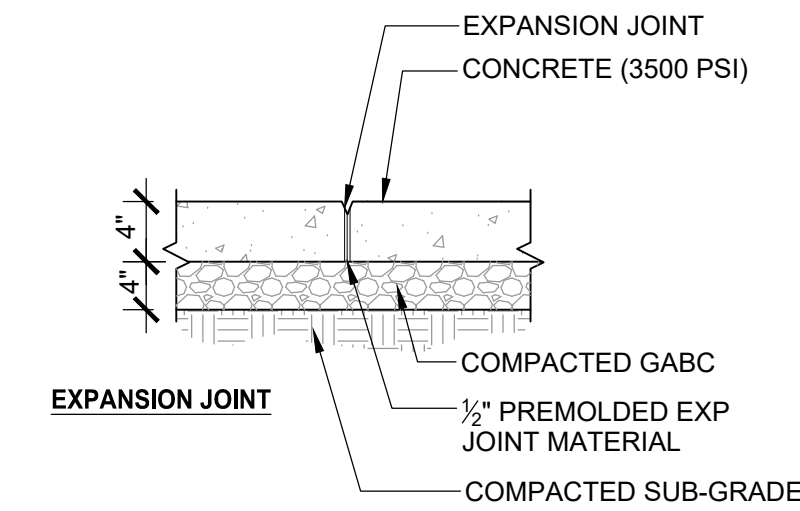
01 BITUMINOUS PAVEMENT
L-501 NOT TO SCALE



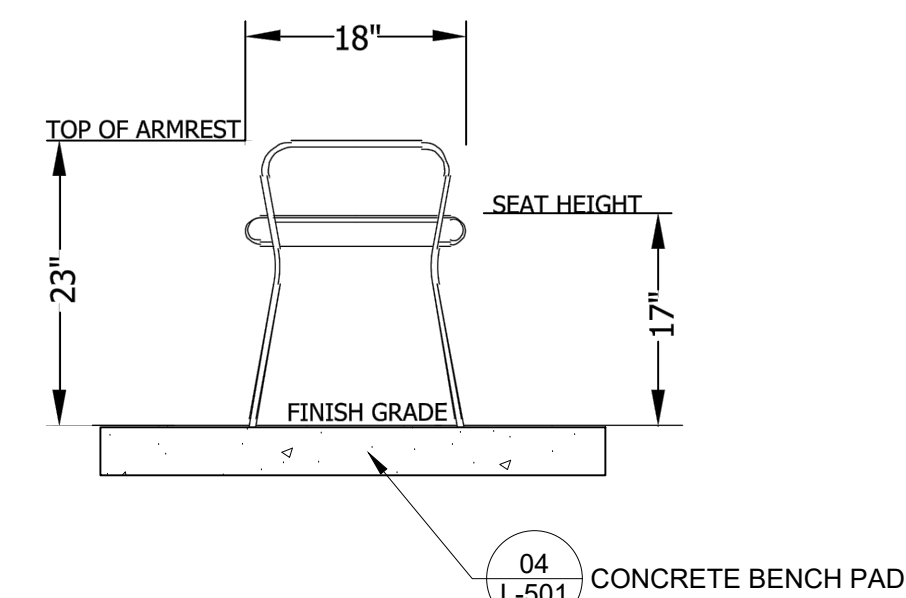
02 TRAIL SHOULDER GRADING
L-501 NOT TO SCALE



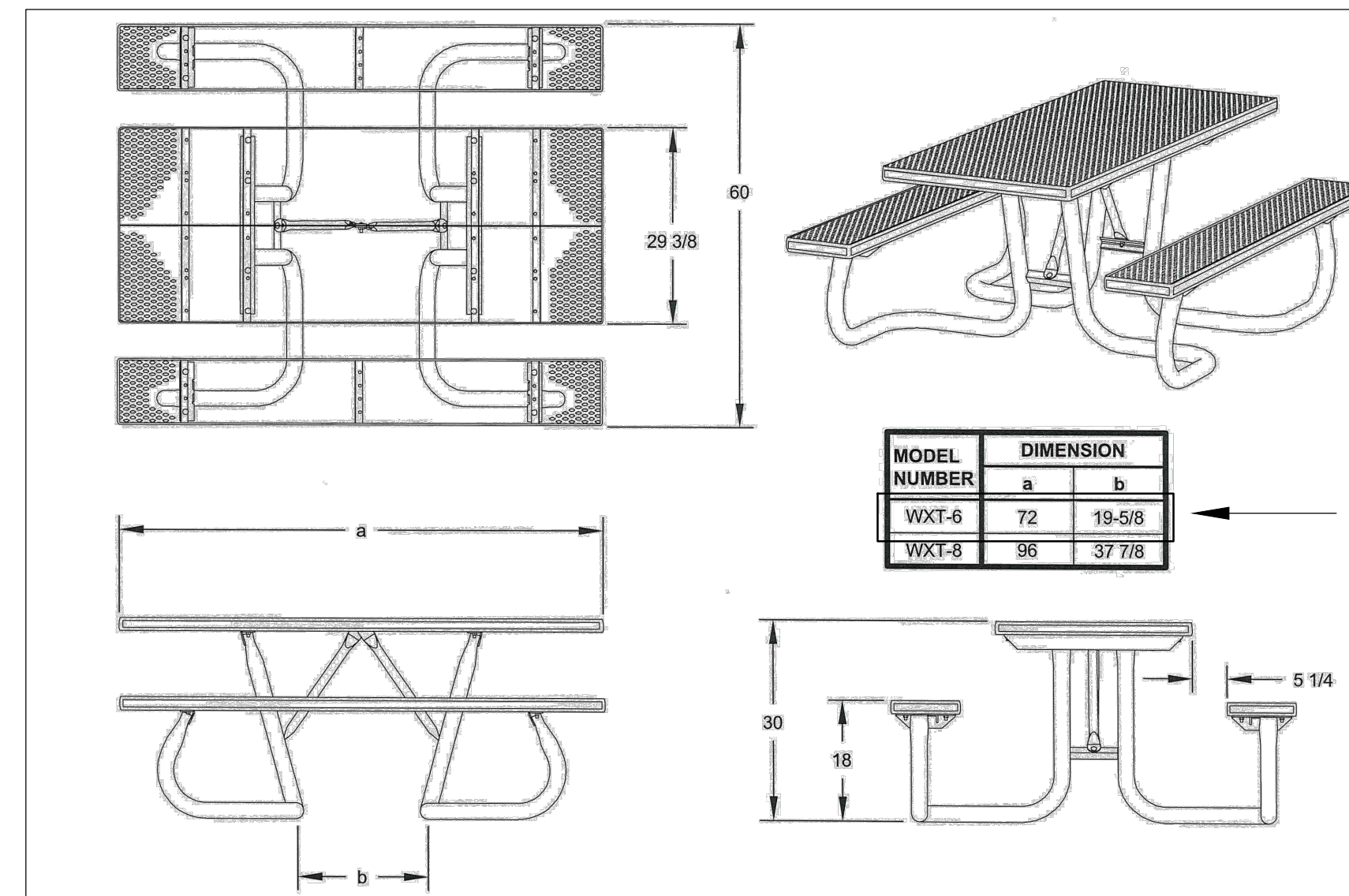
03 CONCRETE PAVEMENT
L-501 NOT TO SCALE



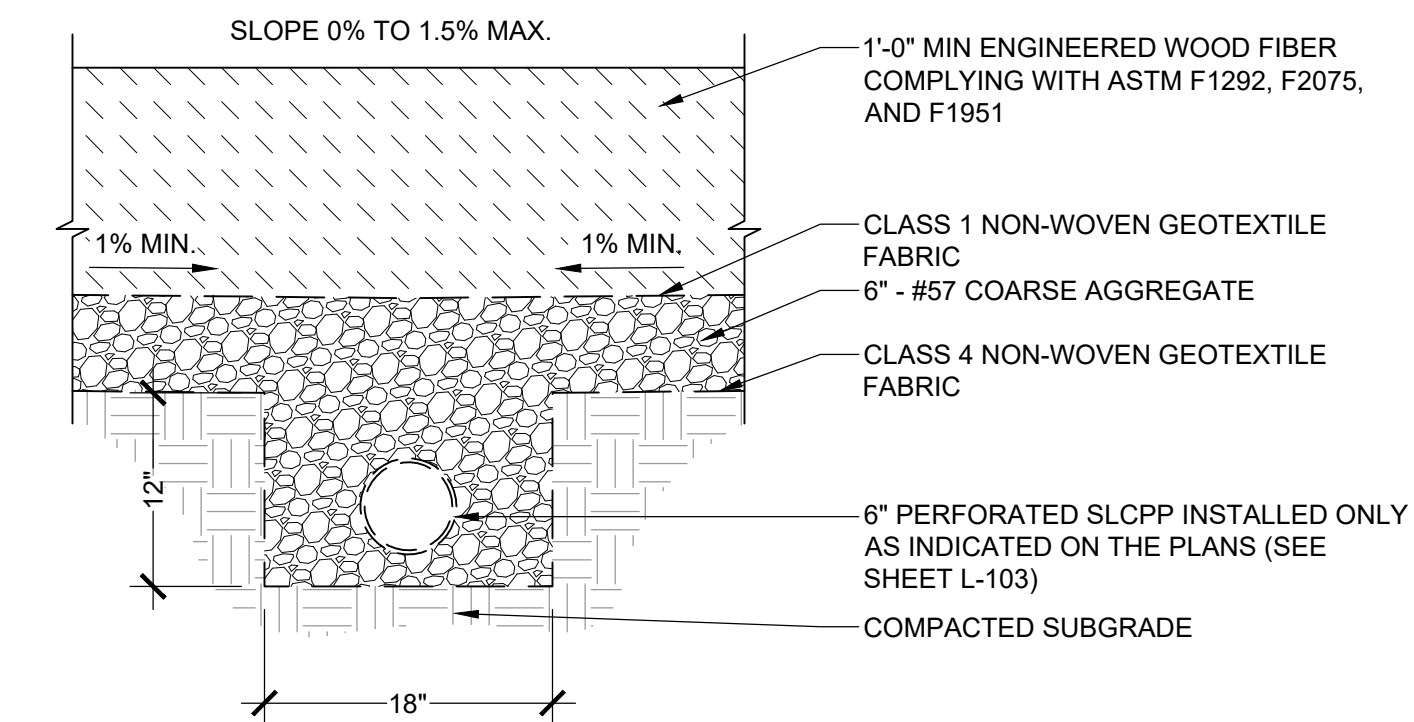
04 BENCH PAD
L-501 NOT TO SCALE



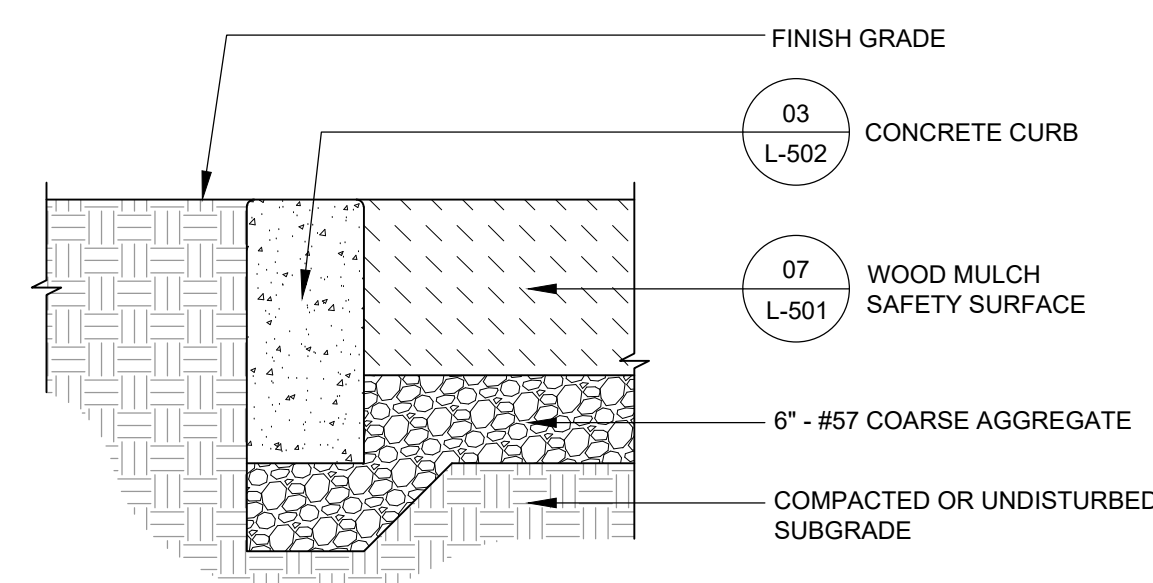
05 BENCH
L-501 NOT TO SCALE



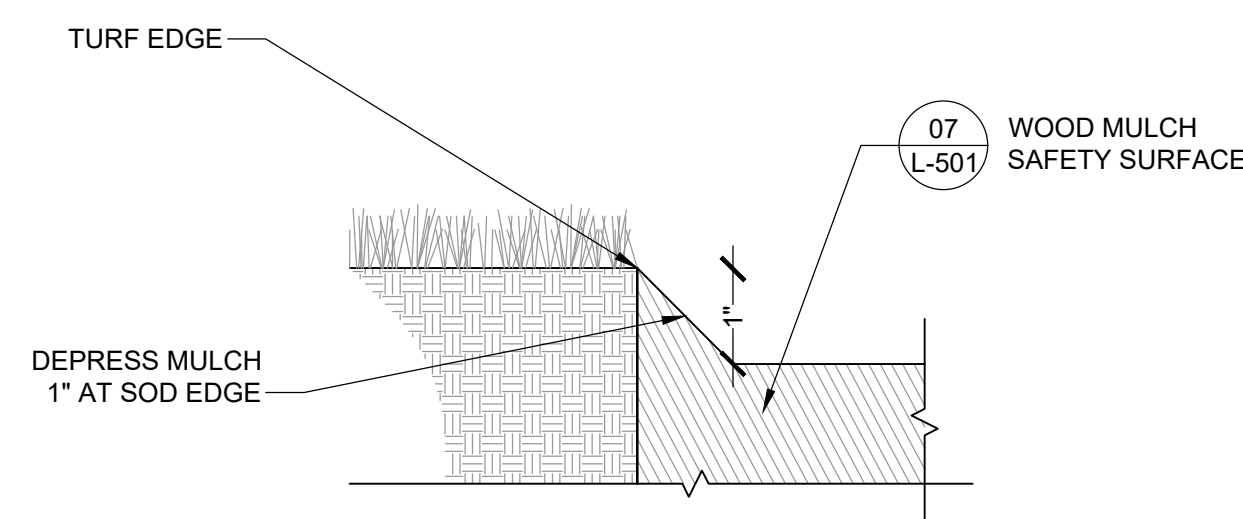
06 MOVEABLE PICNIC TABLE
L-501 NOT TO SCALE



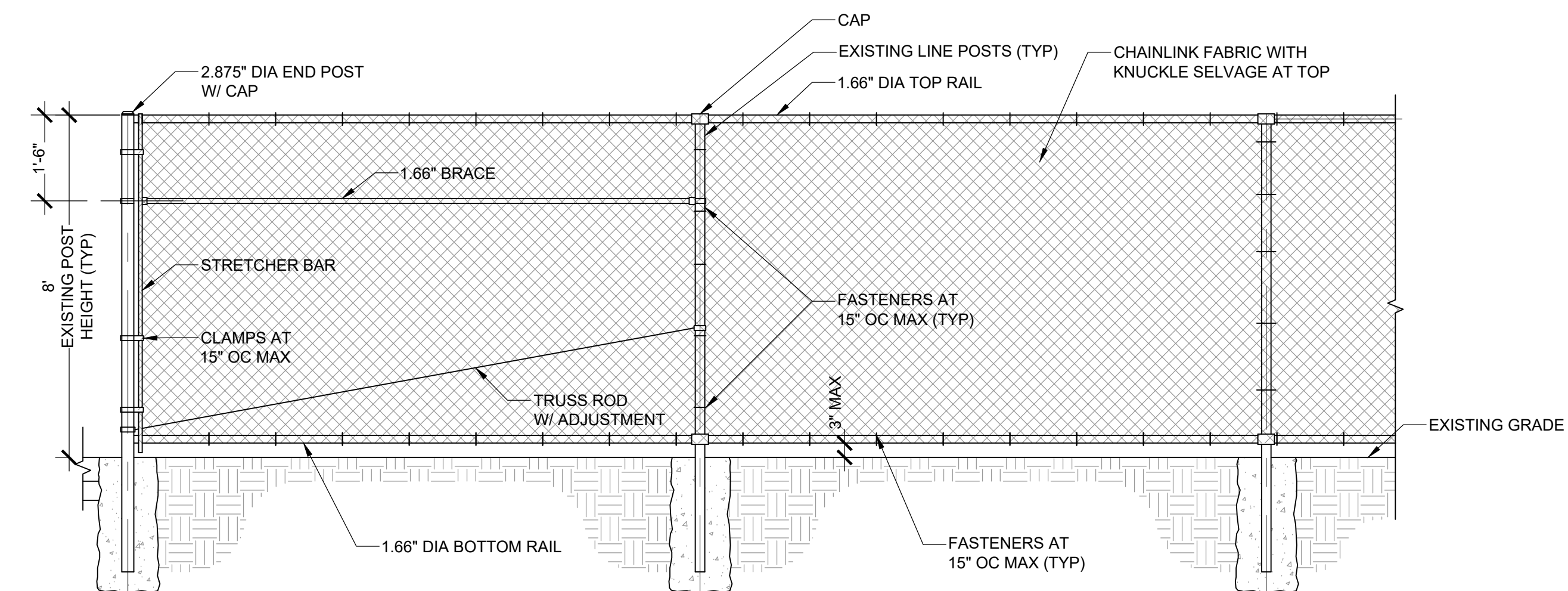
07 WOOD MULCH SAFETY SURFACE
L-501 NOT TO SCALE



08 CONCRETE CURB EDGE AT WOOD MULCH
L-501 NOT TO SCALE

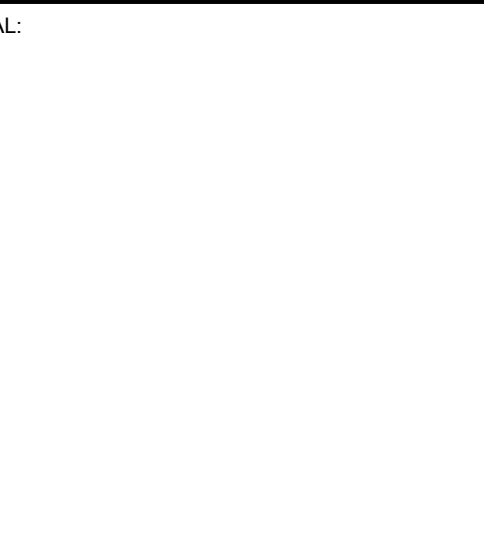
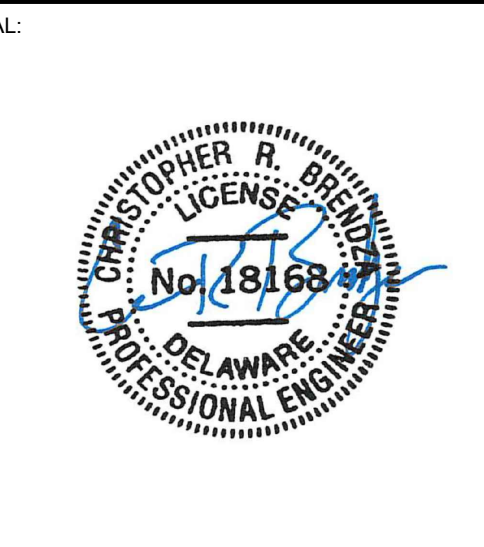


09 WOOD MULCH TRANSITION DETAIL
L-501 NOT TO SCALE



- NOTES:
1. ALL PIPE MEASUREMENTS GIVEN ARE OUTSIDE DIAMETER.
 2. ALL CHAINLINK FENCE COMPONENTS SHALL MATCH EXISTING FENCE MATERIALS - SUBMIT MATERIALS FOR APPROVAL PRIOR TO ORDERING.
 3. EXISTING LINE AND END POSTS TO BE STRAIGHTENED AND PLUMB BEFORE INSTALLING FABRIC, RAILS, AND FASTENERS.

10 SIDELINE FENCE REPAIRS
L-501 NOT TO SCALE



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220 S MAIN STREET
NEWARK, DE 19711



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SITE IMPROVEMENTS

PROJECT LOCATION:
60 MADISON DRIVE
NEWARK, DELAWARE, 19711

PROJECT NUMBER:
20-03026-030

DATE:
07/26/2024

SCALE:
AS NOTED

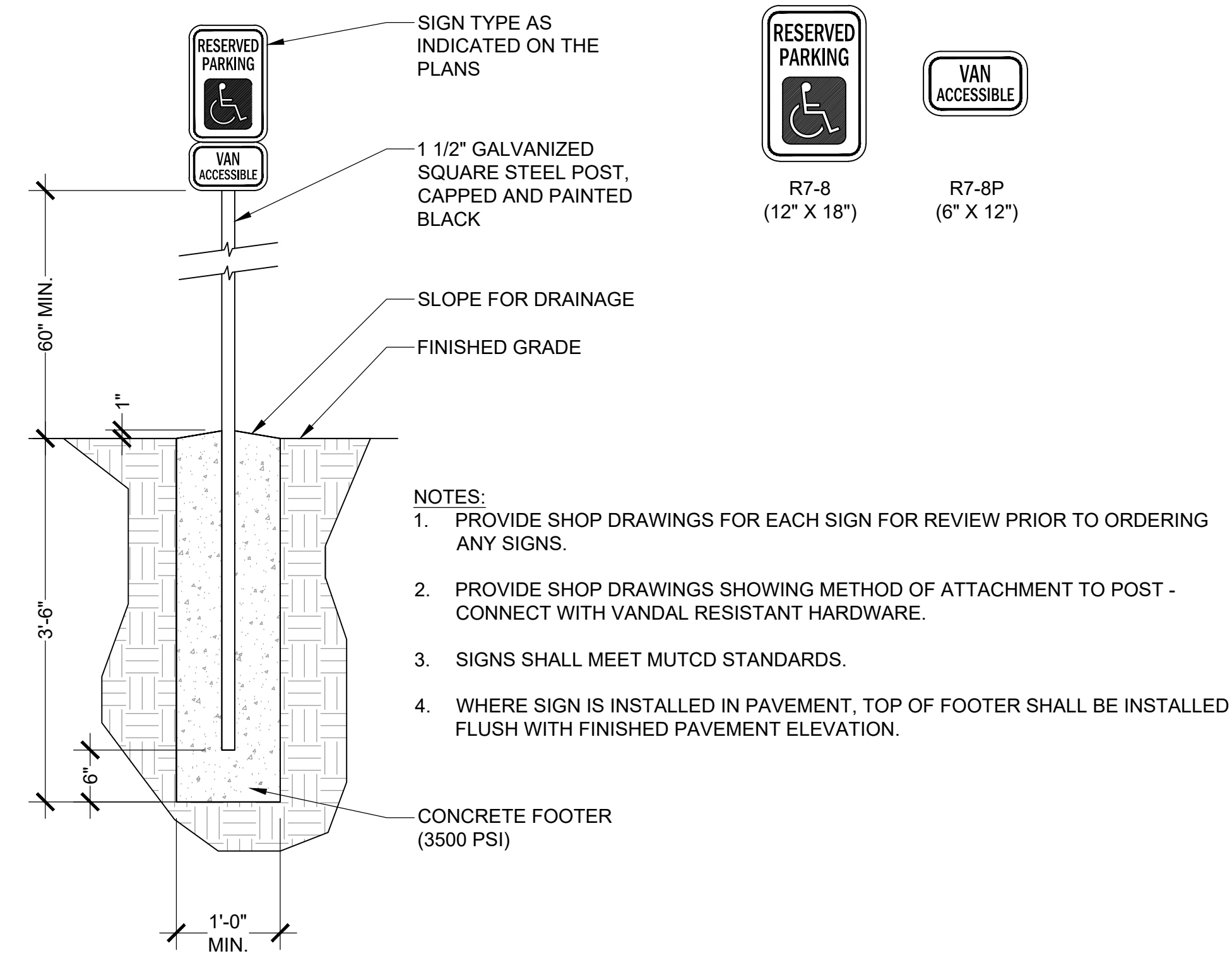
PLAN SET:
CONSTRUCTION PLAN

DRAWING TITLE:

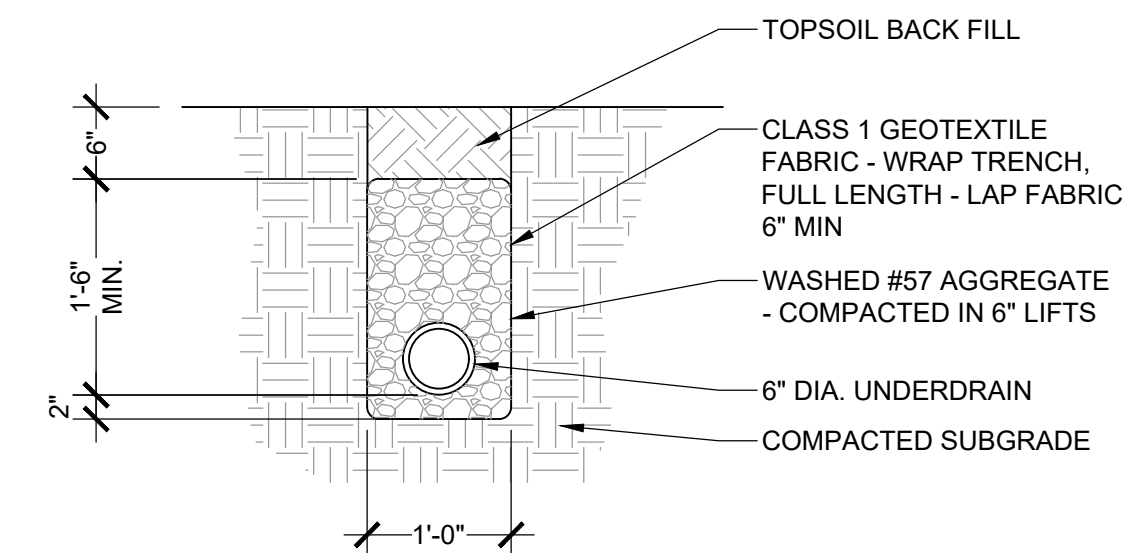
DETAILS

DRAWING NUMBER:

L-501



02
L-502

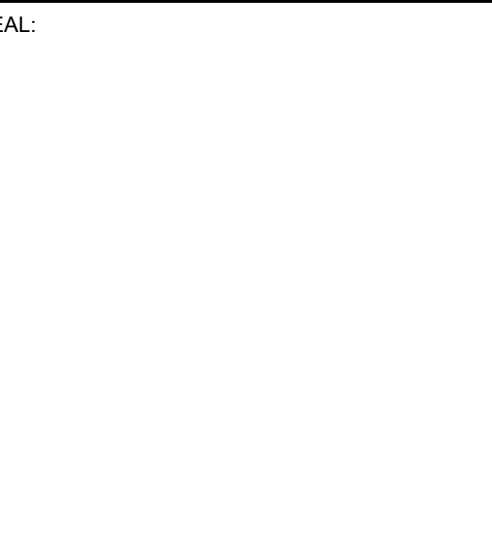


04 **CONCRETE WHEEL STOP REINSTALLATION**
I-502 NOT TO SCALE

05 **UNDERDRAIN (TURF)**
1-502 NOT TO SCALE



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PREPARED FOR:
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220 S MAIN STREET
NEWARK, DE 19711



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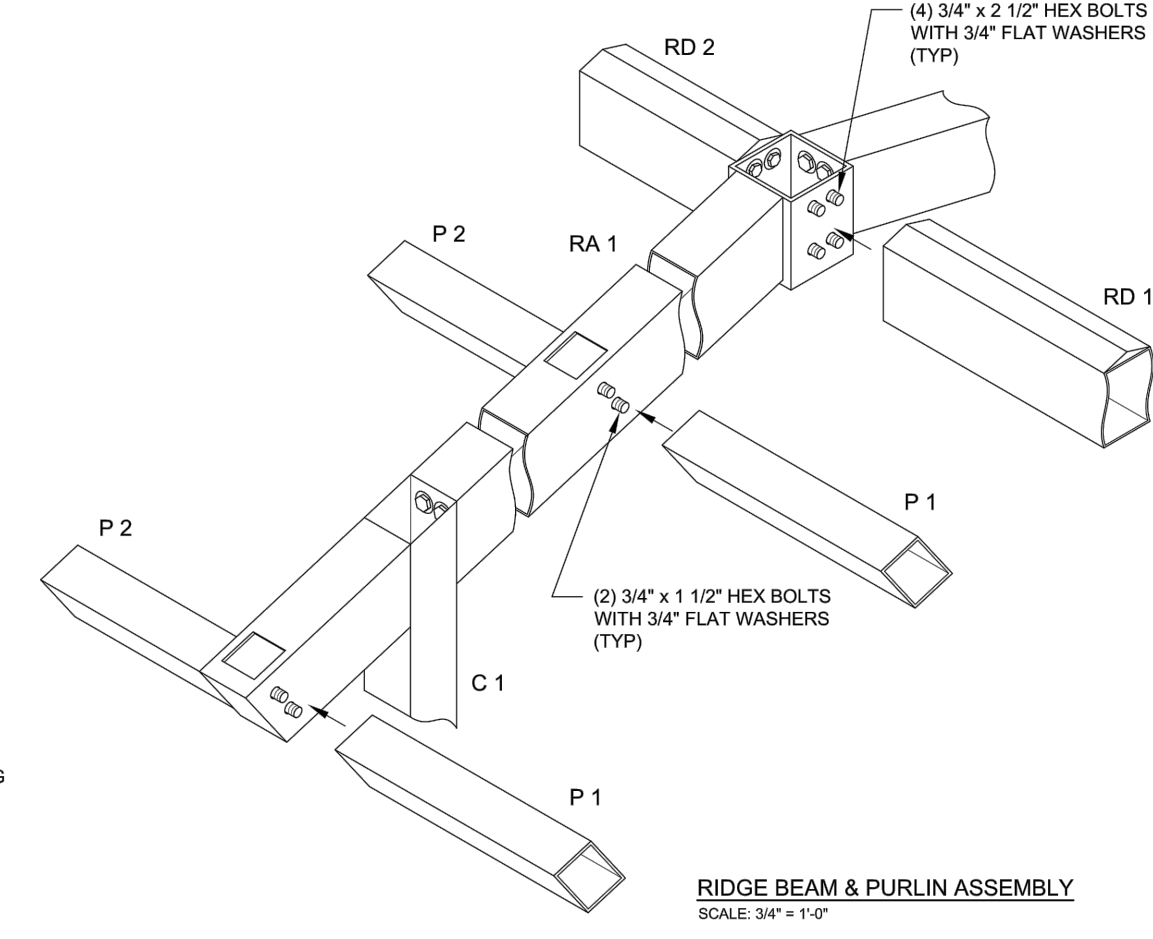
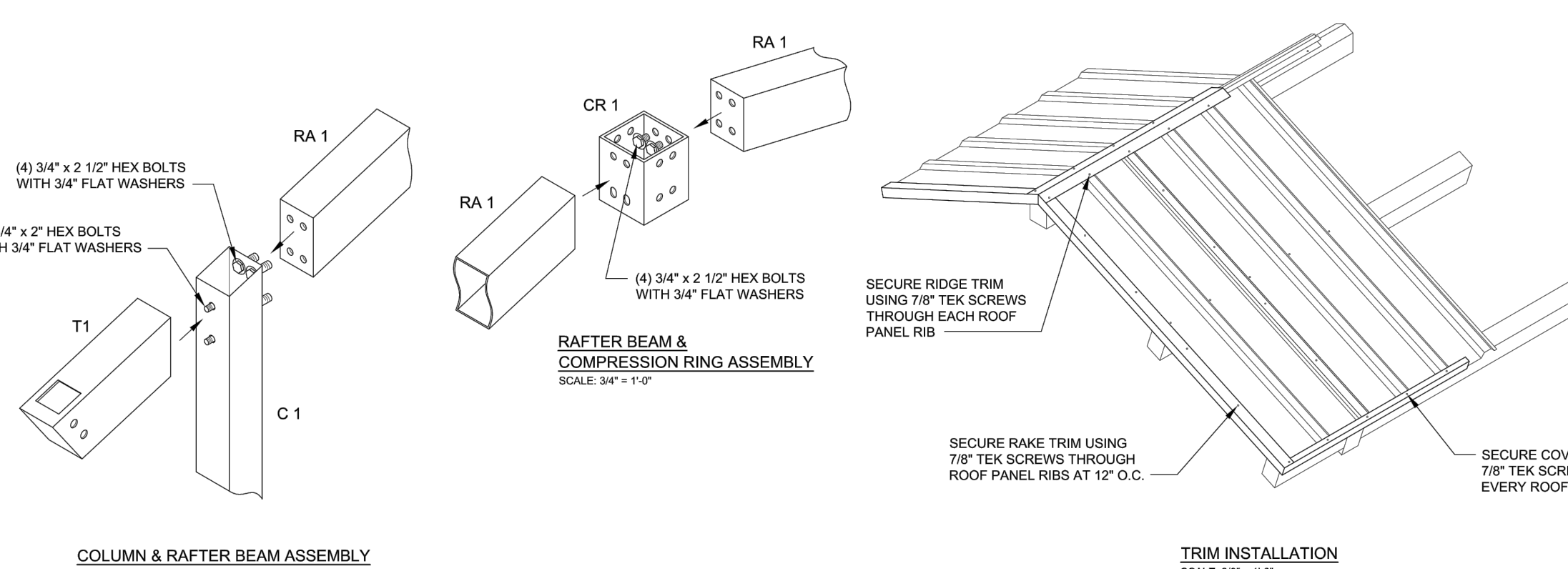
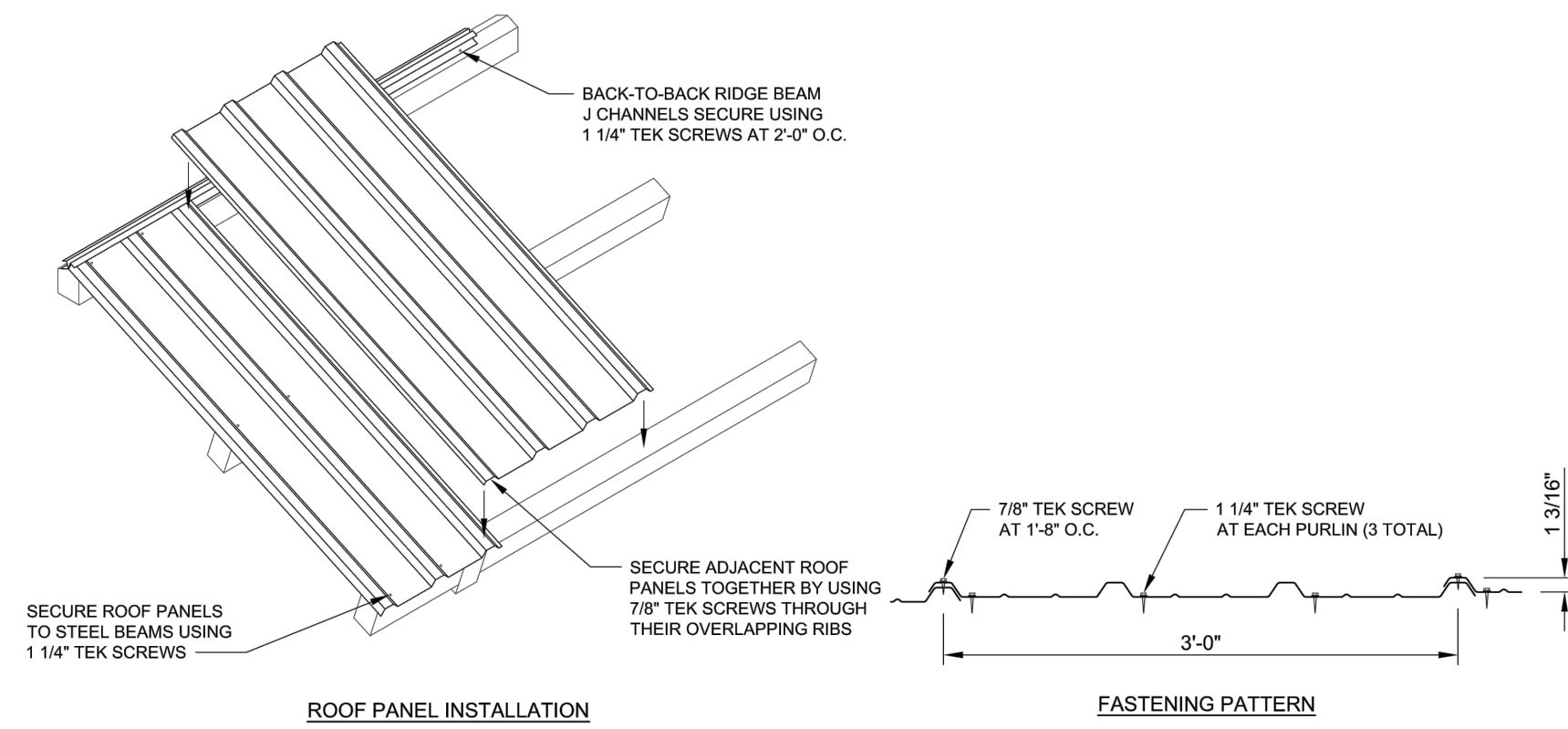
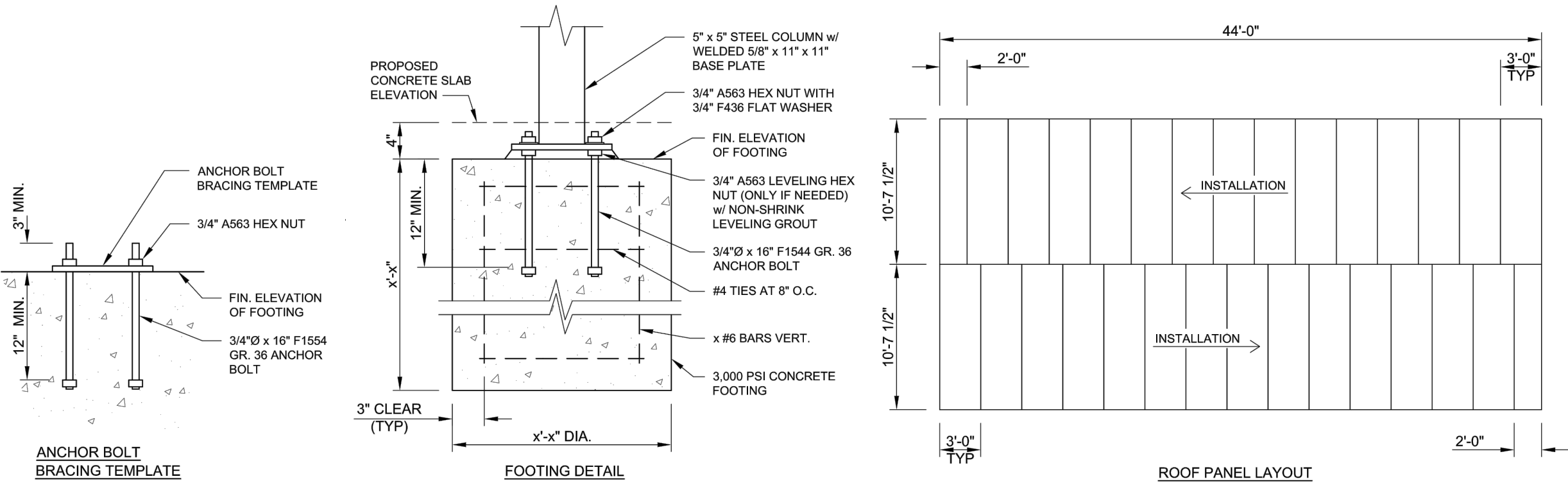
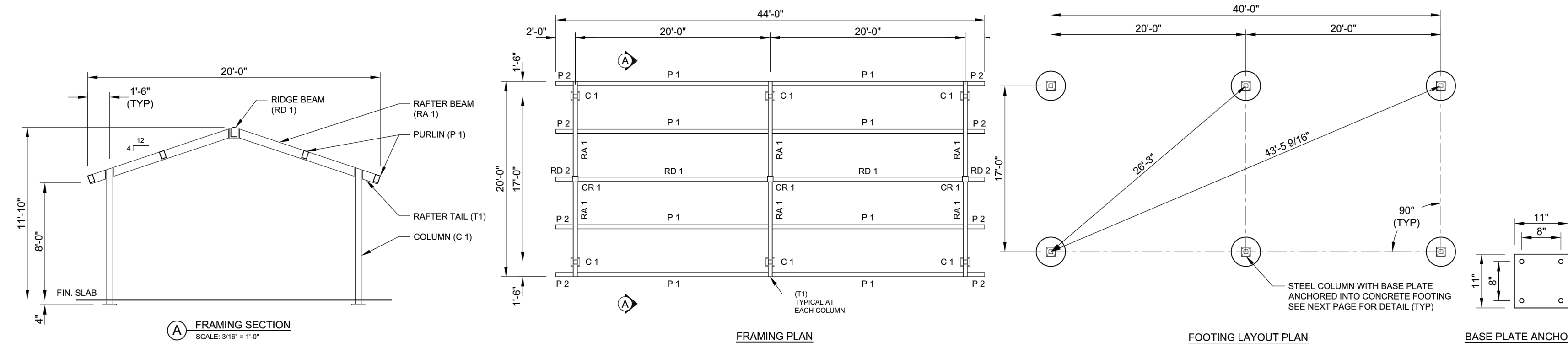
PLAN SET:
CONSTRUCTION PLAN

DRAWING TITLE:

DETAILS

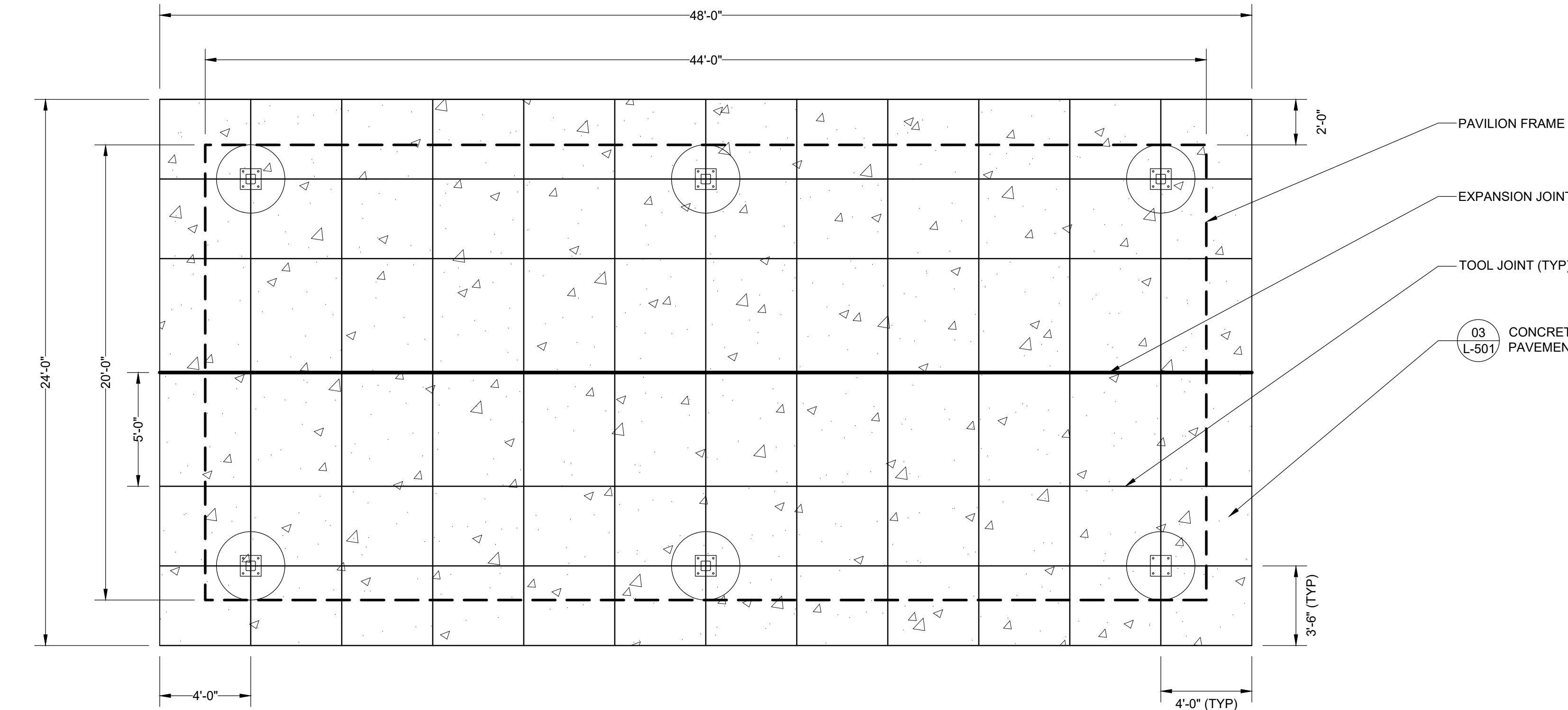
DRAWING NUMBER:

L-503



**FOR REFERENCE
ONLY**

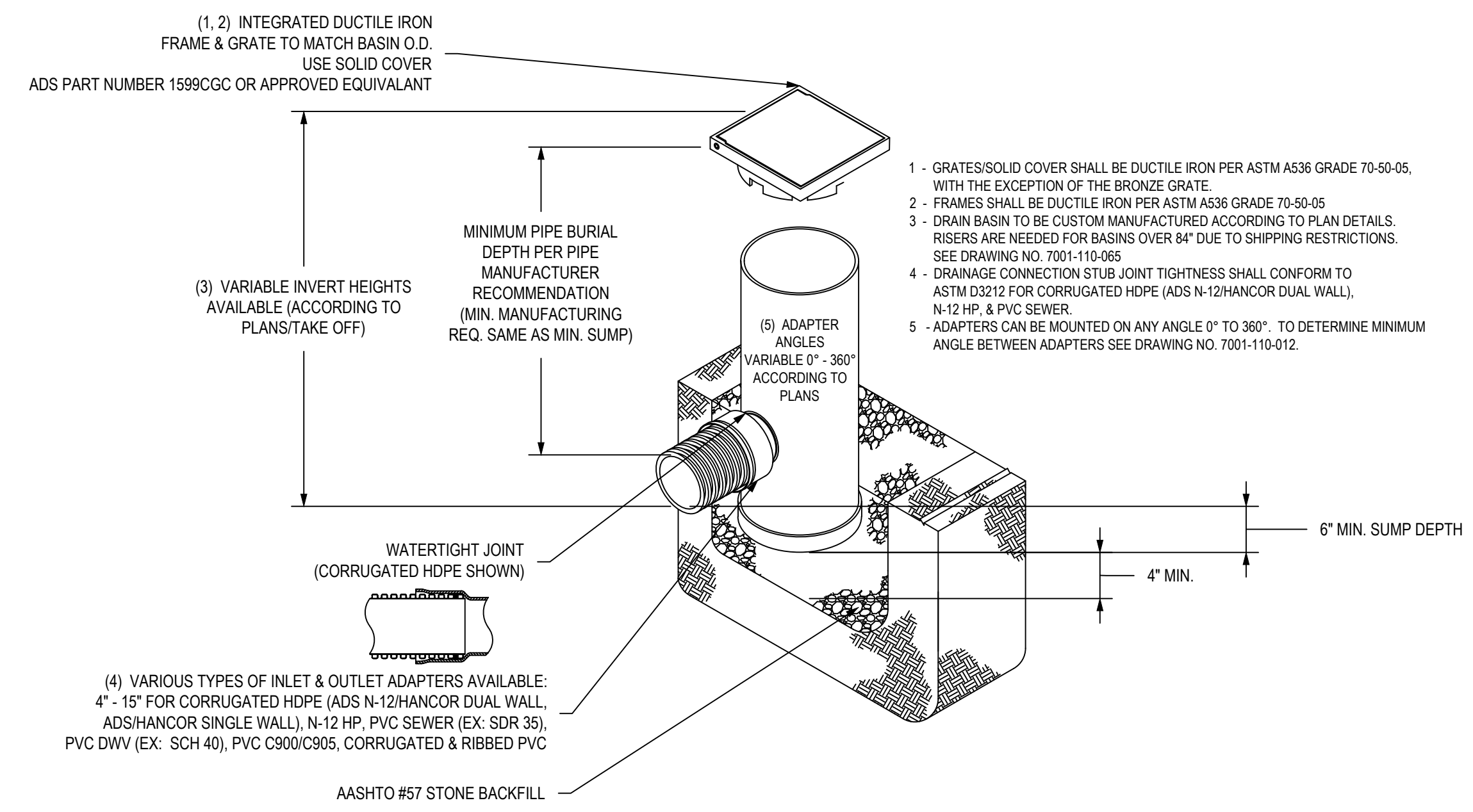
01 GABLE SHELTER - 20'x44'
L-503 NOT TO SCALE



02 SHELTER BASE JOINT PLAN
L-503 NOT TO SCALE

NOTES

- INFORMATION FOR SHELTER IS FOR REFERENCE AND BIDDING PURPOSES ONLY. SEALED DRAWINGS BY AN ENGINEER LICENSED IN THE STATE OF DELAWARE SHALL BE PROVIDED BY CONTRACTOR FOR INSTALLATION.
- A LICENSED ENGINEER IN THE STATE OF DELAWARE MUST PERFORM A FOUNDATION DESIGN AND BASE CONNECTION DETAILS TO BE SUBMITTED WITH SEALED DRAWINGS PACKAGE.
- PAVILION TO INCLUDE KNOCKOUTS IN EACH COLUMN FOR ELECTRIC OUTLETS AND RIDGE BEAMS FOR SECURITY LIGHT INSTALLATION.



03 12" CATCH BASIN
L-503 NOT TO SCALE

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A

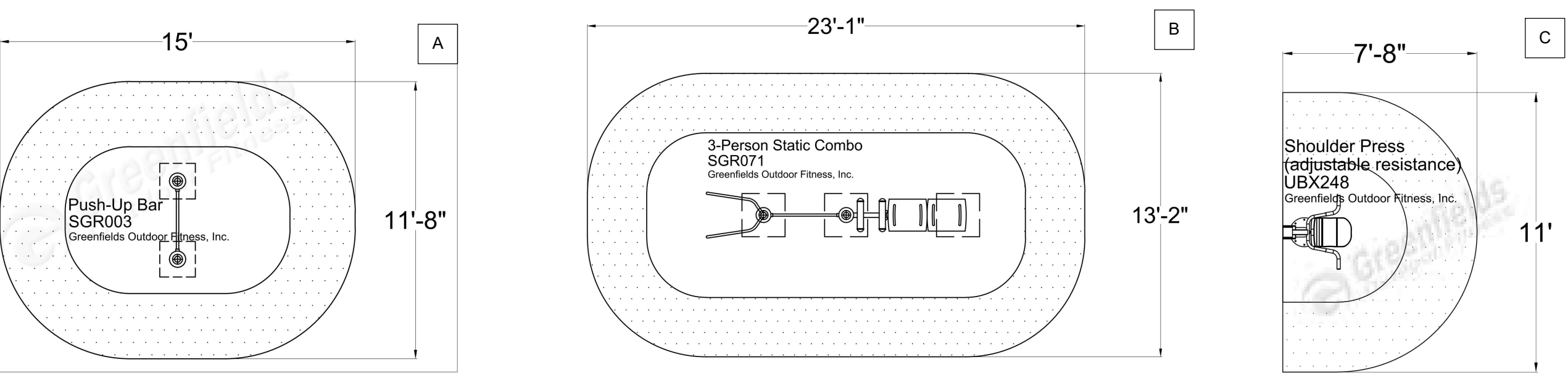
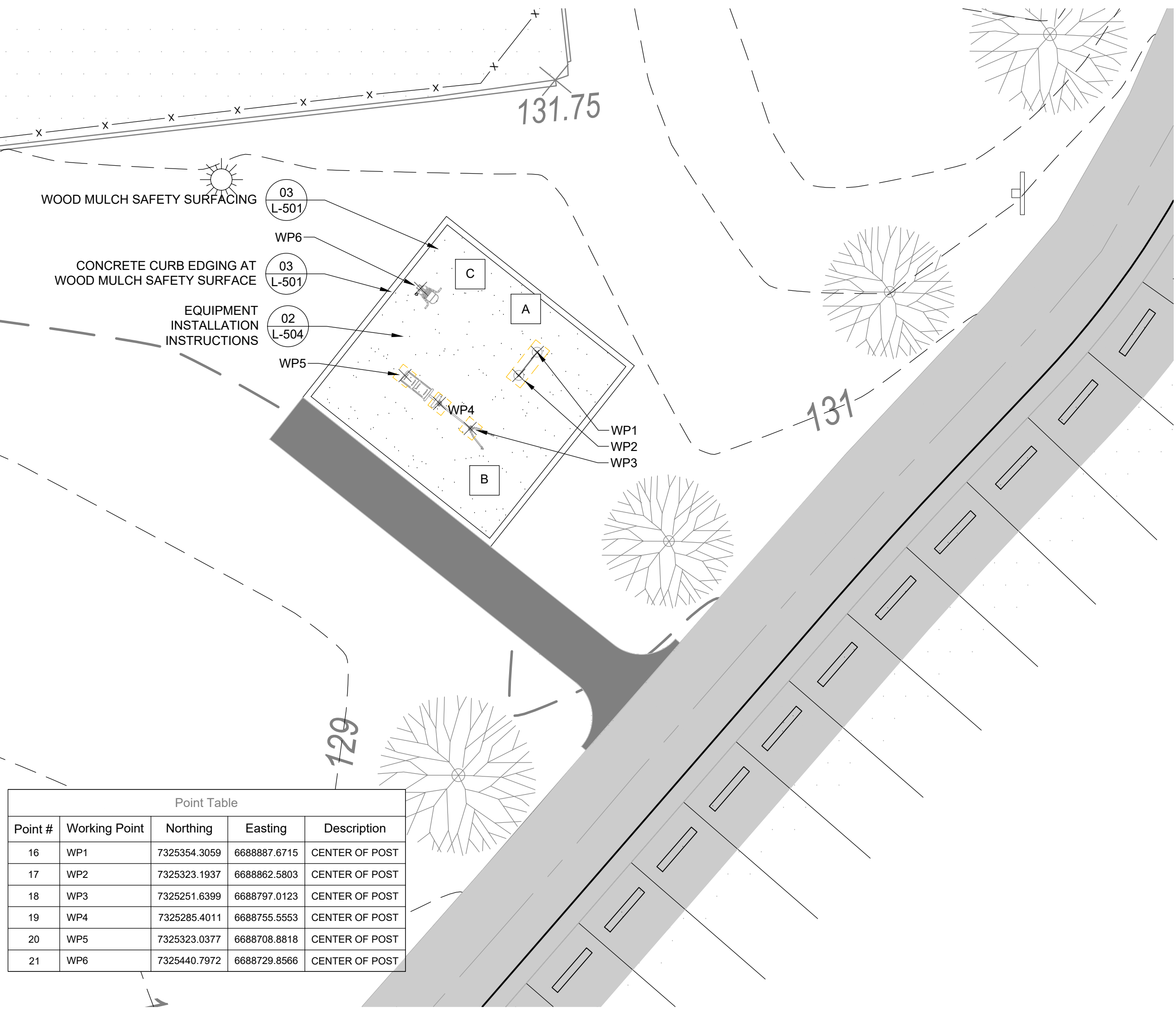
B

C

D

E

1 2 3 4 5 6 7 8



01 EXERCISE AREA LAYOUT
L-504 NOT TO SCALE

EDNA C. DICKEY PARK FITNESS ZONE

The fitness equipment is designed for your enjoyment. For your safety, we ask you to comply with the following:

- You assume all risk and responsibility for use of the exercise equipment at this facility.
- You must be at least 14 years old to use this equipment.
- Parents/Guardians: To avoid injuries, do not let your underage children use the equipment.
- Consult your physician prior to starting any physical fitness training program.
- The City of Newark does not provide any supervision for the use of the equipment.
- Any potential users with known adverse health conditions should not use the equipment.
- Before using the equipment, check for loose parts, breaks, cracks or other conditions needing attention. If any abnormalities are noticed, do not use the equipment. Please contact parksand@newark.de.us or (302)356-7159.
- Perform exercises according to instructions on each piece of equipment.
- Breathe normally during physical activity.
- Perform resistance exercises according to instructions in a slow, controlled manner over the full range of motion. Performing the movements too quickly may result in an injury.
- During exercise, pay attention to how your body feels. If pain or discomfort occurs, STOP THE EXERCISE IMMEDIATELY.
- Rest and recovery are important between sets and exercises. Please allow 2 minutes of rest between exercises.
- Keep a safe distance from exercise equipment when in use by others.

The City of Newark shall not be liable for any personal injury to any person resulting from the use of the exercise equipment at this facility.

Edna C. Dickey Park FITNESS ZONE

The fitness equipment is designed for your enjoyment. For your safety, we ask you to comply with the following:

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Edna C. Dickey Park FITNESS ZONE

Get Active!

Try to be active every day. Even if you've never exercised or haven't exercised in many years, you can benefit from fitness at any age.

Before You Start:

- Start slowly. Warm up for 5 to 10 minutes with easy stretching or brisk walking.
- Take it easy. Moderate exercise can benefit you as much as intense exercise.
- Read and understand all exercise instructions.

A Complete Exercise Program Includes 3 TYPES OF ACTIVITY:

AEROBIC EXERCISE
Exercises to increase heart rate
• Jogging and brisk walking
• Swimming
• Dancing
• Aerobic dance
• Stationary bike
• Elliptical machine
• Rowing machine
• Stair climber
• Treadmill

STRENGTH-BUILDING
Exercises to increase muscle mass
• Push-ups
• Squats
• Lunges
• Deadlifts
• Bench press
• Pull-ups
• Rows
• Tricep dips
• Planks
• Core exercises

STRETCHING
Exercises to increase flexibility
• Static stretching
• Dynamic stretching
• Yoga
• Pilates
• Tai Chi
• Qigong

NEWARK DELAWARE

ZONA DE EJERCICIOS

¡Actívale!

Intenta estar activo todos los días. Incluso si nunca has hecho ejercicios o no lo has hecho en muchos años, puedes beneficiarte del ejercicio físico a cualquier edad.

Antes de que empieces:

- Comienza lentamente. Calienta durante 5 a 10 minutos con estiramientos fáciles o caminata rápida.
- Tómalo con calma. El ejercicio moderado puede beneficiarte tanto como el ejercicio intenso.
- Lee y comprende todas las instrucciones de ejercicio.

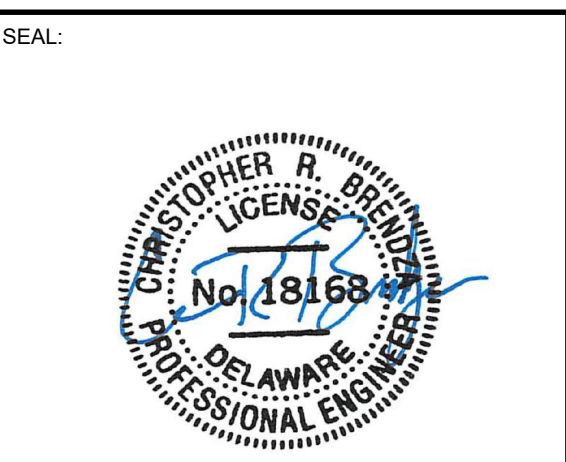
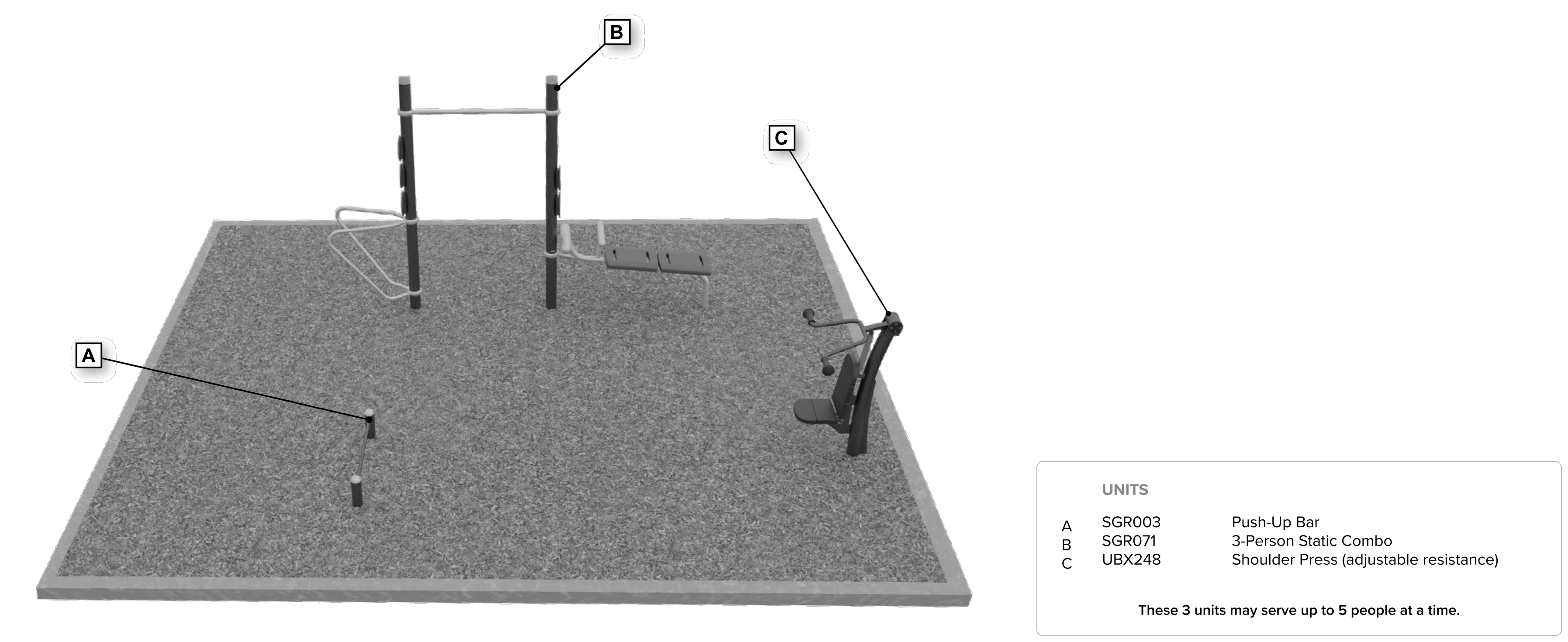
Un programa completo de ejercicios incluye 3 TIPOS DE ACTIVIDAD:

EJERCICIO AERÓBICO
Ejercicios que aumentan la frecuencia cardíaca
• Correr y caminar rápido
• Natación
• Bailar
• Aeróbic
• Bicicleta estática
• Máquina de remar
• Escalador
• Cinta rodante
• Máquina de remo

FORTALEZAR LOS MÚSCULOS
Ejercicios para aumentar la masa muscular
• Flexiones
• Sentadillas
• Zancos
• Levantamiento de pesas
• Press de banca
• Dominadas
• Remos
• Zancos
• Plancha
• Ejercicios de núcleo
• Yoga
• Tai Chi
• Qigong

ESTIRAMIENTOS
Ejercicios para aumentar la flexibilidad
• Estiramientos estáticos
• Estiramientos dinámicos
• Yoga
• Pilates
• Tai Chi
• Qigong

NEWARK DELAWARE



PREPARED FOR:
CITY OF NEWARK PARKS AND RECREATION
220 S MAIN STREET
NEWARK, DE 19711



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PROJECT:
EDNA C. DICKEY PARK SITE IMPROVEMENTS

PROJECT LOCATION:
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NEWARK, DELAWARE, 19711

PROJECT NUMBER:
20-03026-030

DATE:
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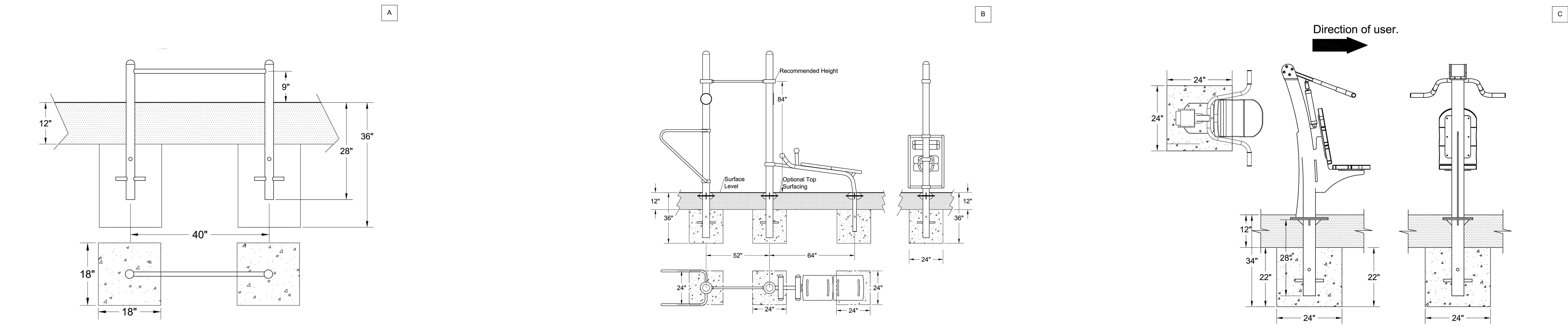
SCALE:
AS NOTED

PLAN SET:
CONSTRUCTION PLAN

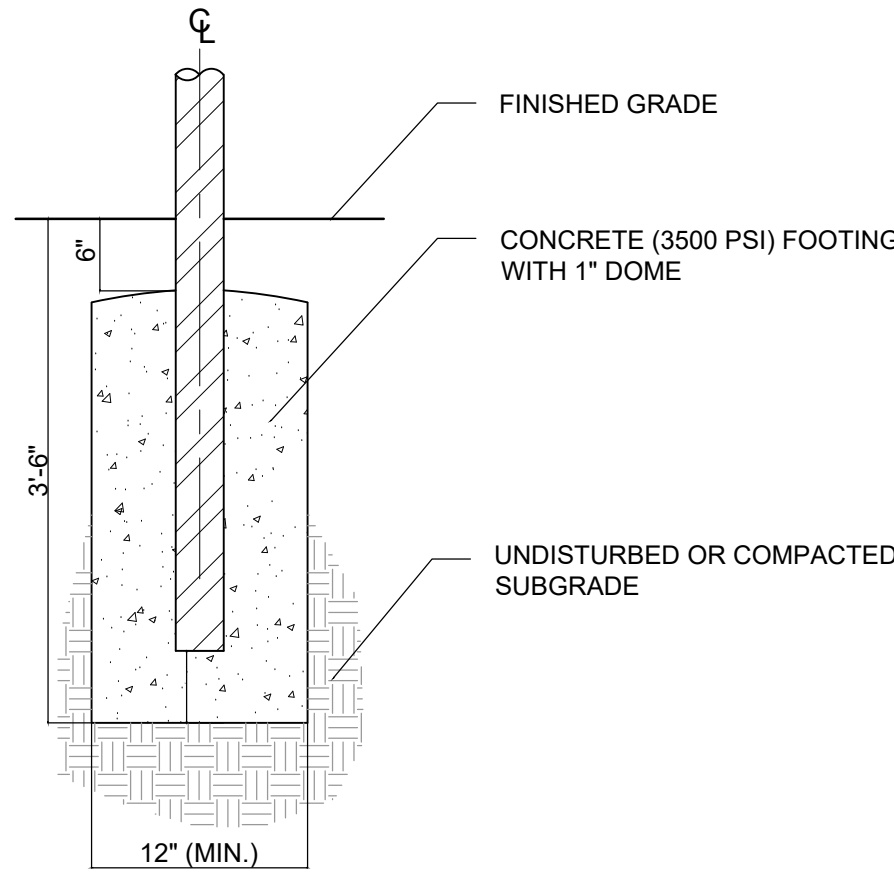
DRAWING TITLE:
DETAILS

DRAWING NUMBER:
L-504

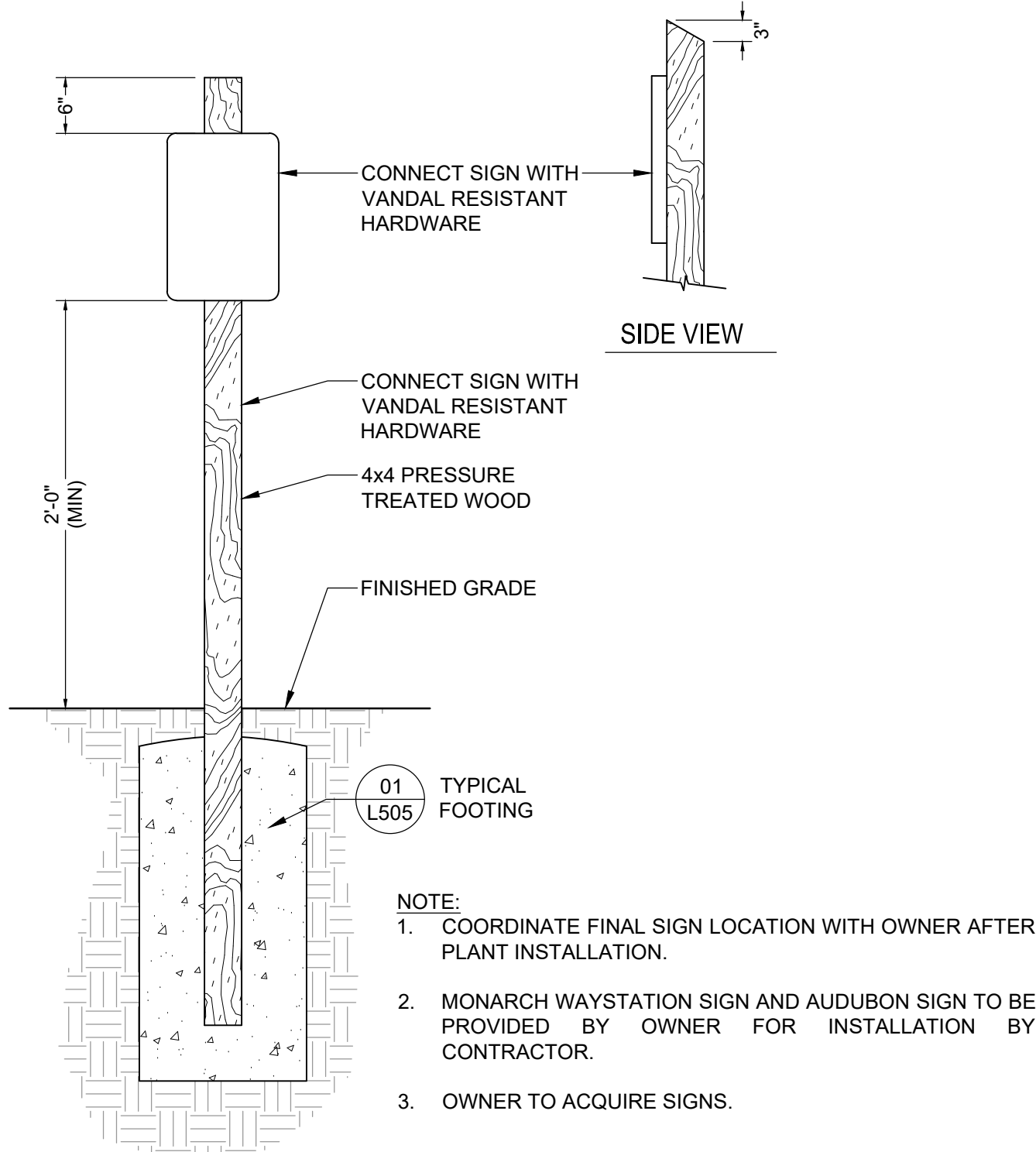
02 EXERCISE INSTALLATION INSTRUCTIONS
L-504 NOT TO SCALE



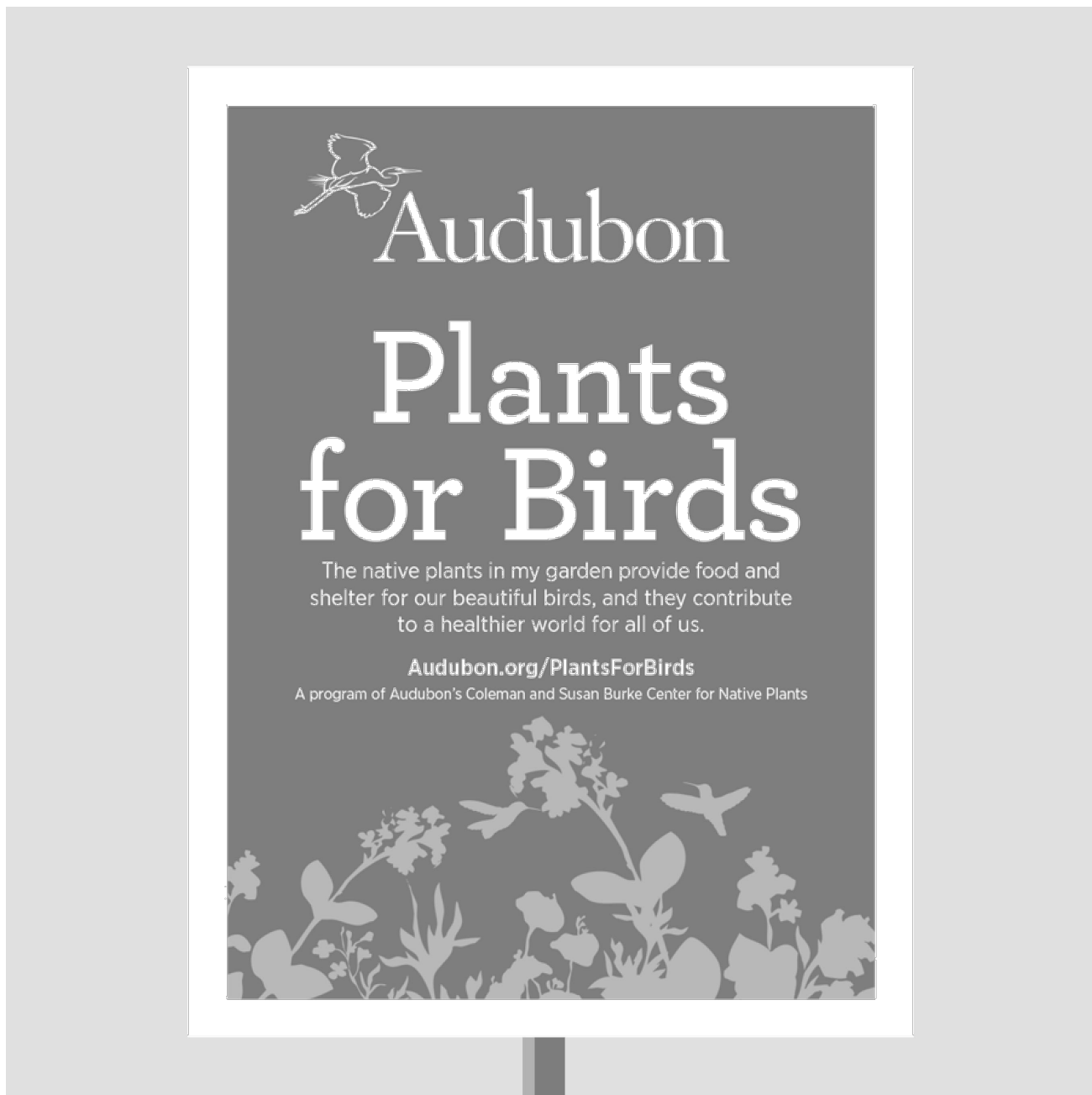
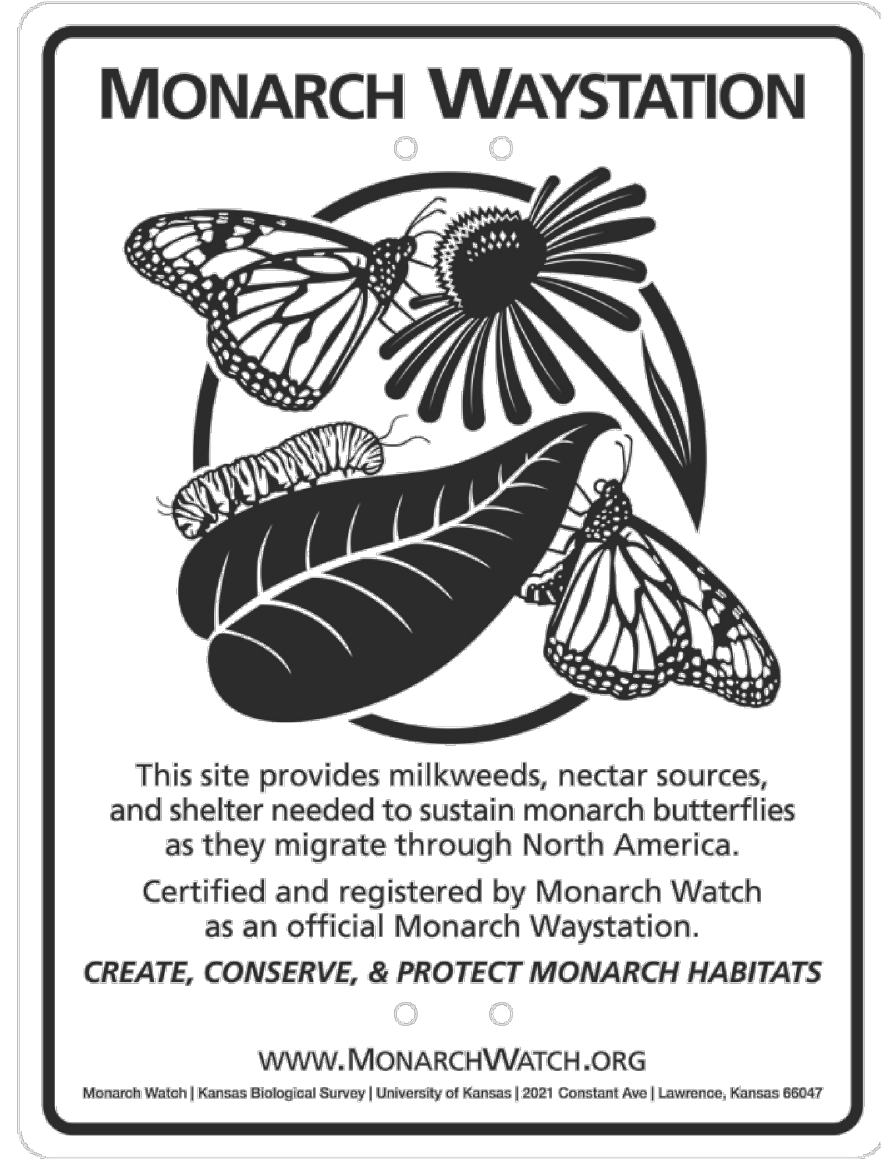
1 2 3 4 5 6 7 8



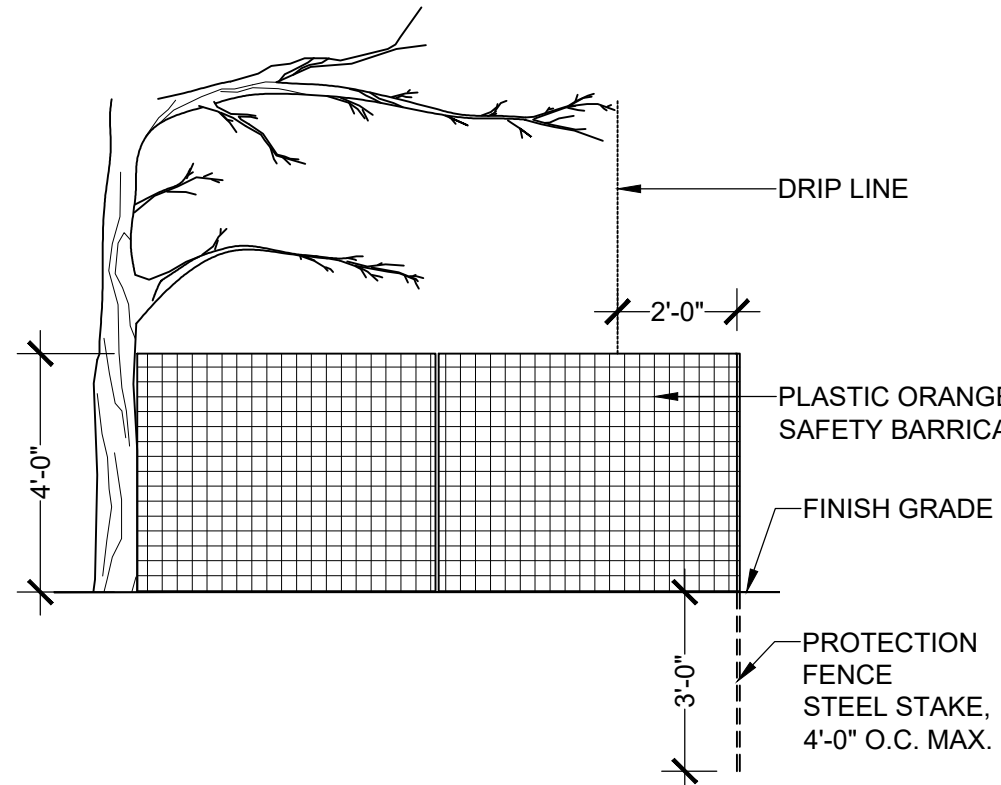
01
L-505
TYPICAL FOOTER
NOT TO SCALE



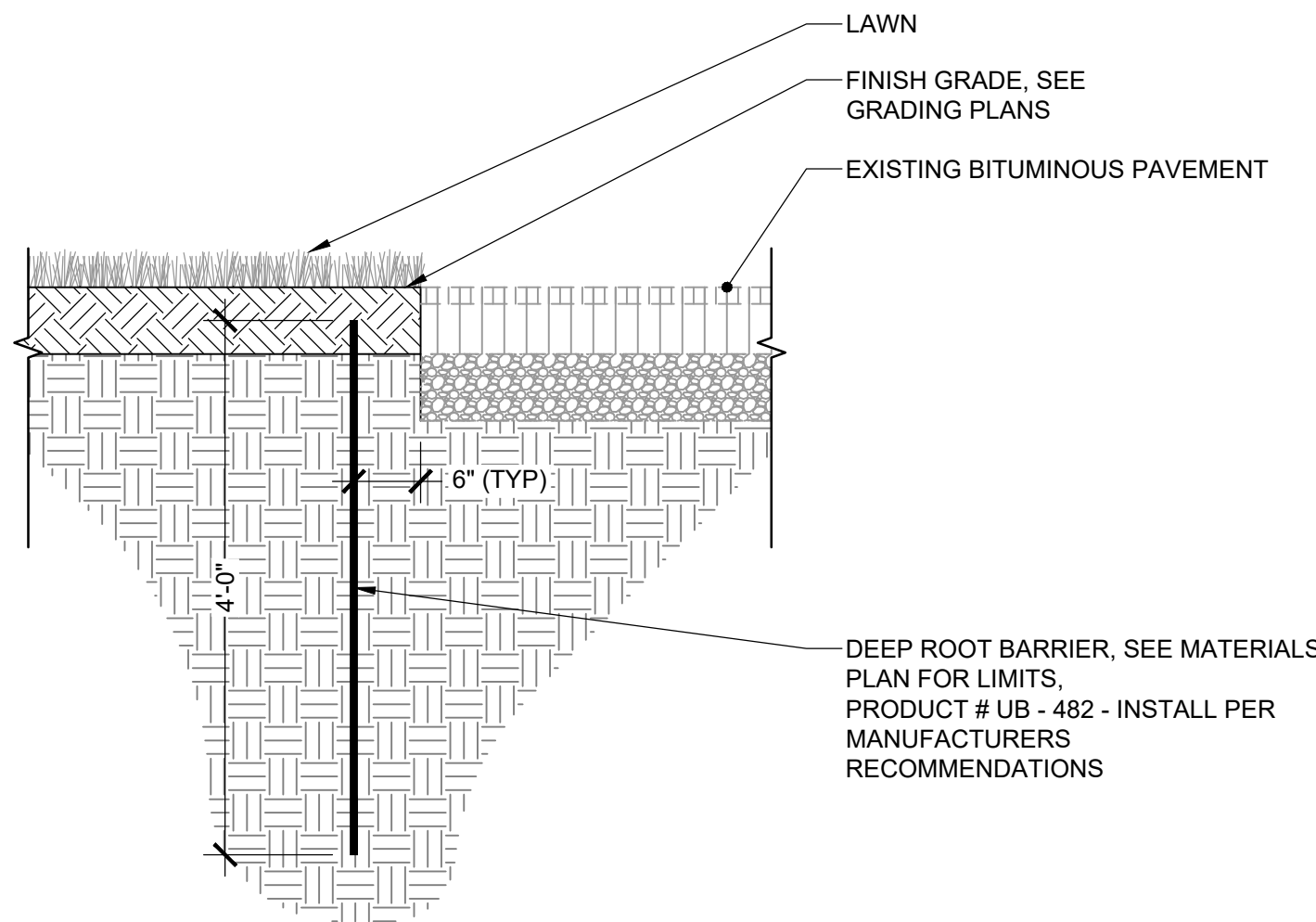
02
L-505
HABITAT GARDEN SIGNS
NOT TO SCALE



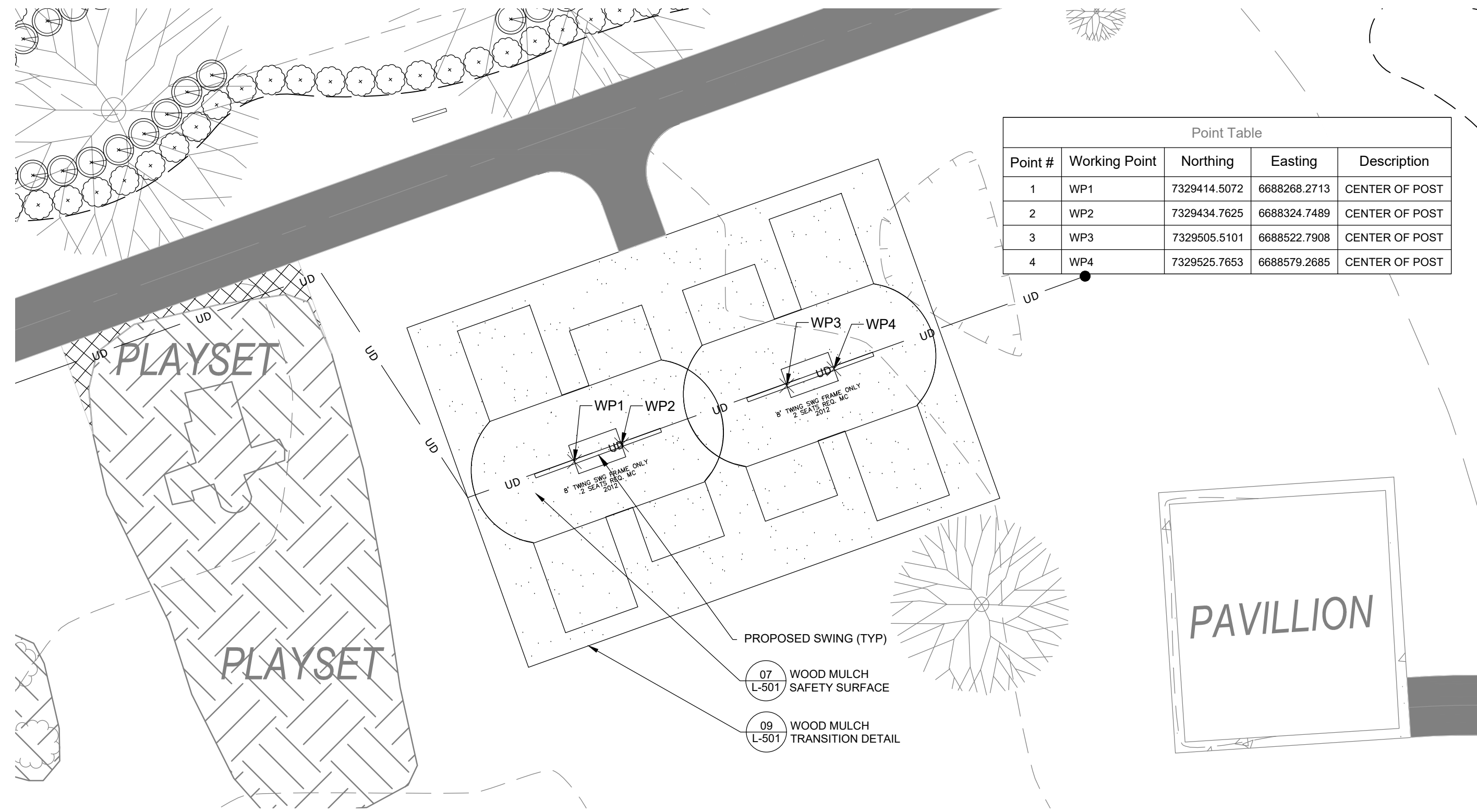
- TREE PROTECTION NOTES
1. ALL EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TREE PROTECTION FENCING. LOCATION OF TREE PROTECTION FENCE IS INDICATED ON DRAWINGS.
 2. TREE PROTECTION FENCE SHALL BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION PROCESS. IF TREE PROTECTION IS MOVED OR REMOVED FOR THE INSTALLATION OF THE WORK REPLACE IT IMMEDIATELY AT THE COMPLETION OF THE WORK.
 3. EXERCISE EXTREME CAUTION IN REMOVING PAVEMENT WITHIN DRIP LINE OF EXISTING TREES TO REMAIN.
 4. EXERCISE EXTREME CAUTION WHEN REMOVING TREES, ADJACENT TO EXISTING TREES TO REMAIN. USE HAND METHODS IN CANOPIES AND ROOT ZONES OF EXISTING TREES.
 5. TRENCHING OR EXCAVATION WITHIN THE TREE PROTECTION FENCE SHALL BE COMPLETED WITH EXTREME CARE. USE HAND TOOLS ONLY.
 6. AVOID DAMAGING EXISTING TREES. DAMAGE INCLUDES BUT IS NOT LIMITED TO: CUTTING, BREAKING, SKINNING OR COMPACTING OF ROOTS. SKINNING AND BRUISING OF BARK AND BREAKING OF BRANCHES AND LIMBS.
 7. CONTRACTOR SHALL NOT PARK OR STORE EQUIPMENT AND SUPPLIES WITHIN THE TREE PROTECTION FENCING.



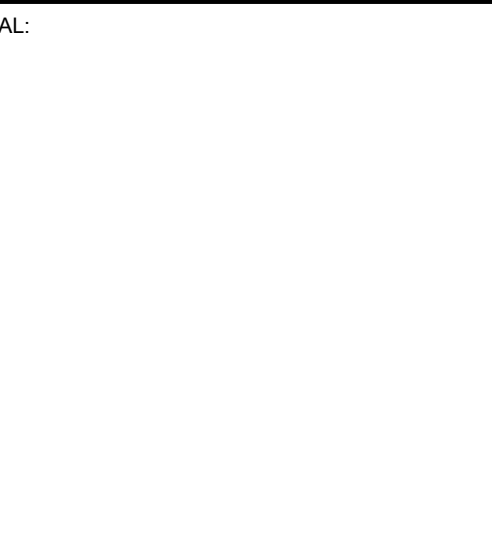
03
L-505
TREE PROTECTION FENCE
NOT TO SCALE



04
L-505
ROOT PROTECTION BARRIER
NOT TO SCALE



05
L-505
TWIN SWING LAYOUT INFORMATION
NOT TO SCALE



PREPARED FOR:
**CITY OF NEWARK
PARKS AND
RECREATION**
220 S MAIN STREET
NEWARK, DE 19711



REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT:
**EDNA C. DICKEY PARK
SITE IMPROVEMENTS**

PROJECT LOCATION:
60 MADISON DRIVE
NEWARK, DELAWARE, 19711

PROJECT NUMBER:
20-03026-030

DATE: 07/26/2024
SCALE: AS NOTED

PLAN SET:
CONSTRUCTION PLAN

DRAWING TITLE:

DETAILS

DRAWING NUMBER:

L-505

LIGHTING FIXTURE SCHEDULE - BEAR TRAFFIC												
TYPE	DESCRIPTION	BASIS OF DESIGN OR APPROVED EQUAL	BASIS OF DESIGN MODEL	COUNT	LAMP	COLOR	LIFE	VOLTAGE	MAXIMUM WATTAGE	LUMENS	MOUNTING	COMMENTS
A	VANDAL RESISTANT LINEAR FIXTURE WITH PHOTOCELL CONTROLS	LCD	VSA-2-1W29-40-80-VAR-DM-OP-BJ-TP-65-PC	4	LED	4000K	100,000 0	VAR	100,000	2929	SURFACE	SEE 1,2,3,4,&5

FIXTURE SCHEDULE NOTES:

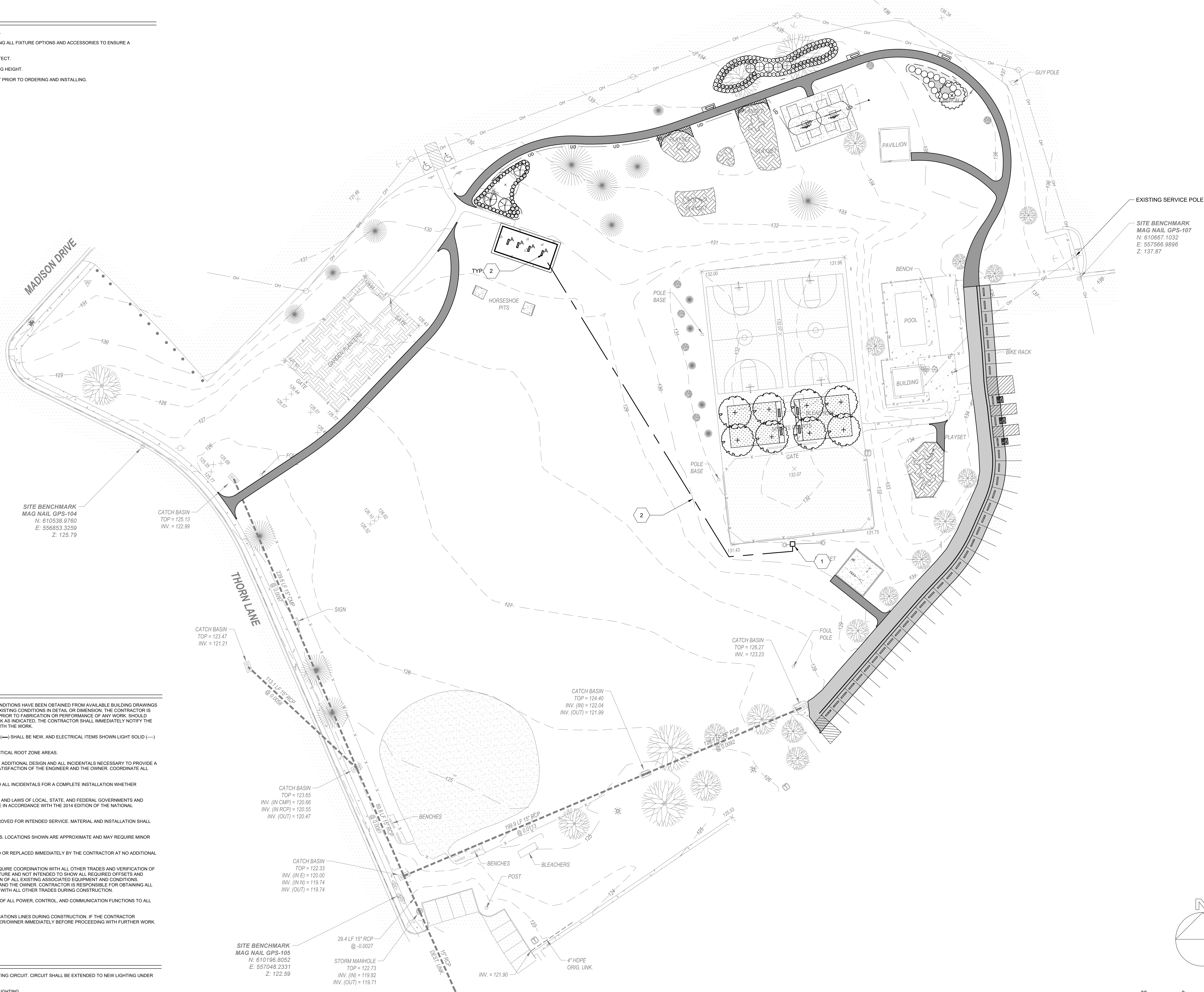
- COORDINATE ALL FIXTURE QUANTITIES AND PLACEMENT REQUIREMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING AND COORDINATING ALL FIXTURE OPTIONS AND ACCESSORIES TO ENSURE A COMPLETE QUALITY INSTALLATION.
- FOR ALL LIGHT FIXTURES, FINISH SHOULD BE COORDINATED WITH ARCHITECT.
- FOR ALL LIGHT FIXTURES, COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHT.
- ALL LIGHTING FIXTURES SHALL BE APPROVED BY THE OWNER/ARCHITECT PRIOR TO ORDERING AND INSTALLING.

GENERAL SHEET NOTES:

- INFORMATION SHOWN ON THIS DRAWING PERTAINING TO EXISTING CONDITIONS HAVE BEEN OBTAINED FROM AVAILABLE BUILDING DRAWINGS OR GENERAL FIELD OBSERVATIONS AND MAY NOT INDICATE ACTUAL EXISTING CONDITIONS IN DETAIL OR DIMENSION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL EXISTING CONDITIONS PRIOR TO FABRICATION OR PERFORMANCE OF ANY WORK. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
- UNLESS OTHERWISE NOTED, ELECTRICAL ITEMS SHOWN HEAVY SOLID (—) SHALL BE NEW, AND ELECTRICAL ITEMS SHOWN LIGHT SOLID (---) SHALL BE EXISTING TO REMAIN.
- REFER TO DEMOLITION PLAN FOR WORK LIMITATIONS WITHIN TREE CRITICAL ROOT ZONE AREAS.
- PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, COORDINATION, ADDITIONAL DESIGN AND ALL INCIDENTALS NECESSARY TO PROVIDE A COMPLETE AND OPERABLE SYSTEM AS DETAILED ON PLANS TO THE SATISFACTION OF THE ENGINEER AND THE OWNER. COORDINATE ALL WORK WITH THE ENGINEER BEFORE THE START OF WORK.
- CONTRACTOR SHALL INCLUDE IN THEIR BID ALL MATERIAL, LABOR, AND ALL INCIDENTALS FOR A COMPLETE INSTALLATION WHETHER SPECIFICALLY CALLED FOR OR NOT.
- PERFORM WORK AS REQUIRED BY APPLICABLE CODES, REGULATIONS, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS AND OTHER AUTHORITIES WITH LAWFUL JURISDICTION. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2014 EDITION OF THE NATIONAL ELECTRICAL CODE.
- MATERIAL AND EQUIPMENT SHALL BE UL, NEMA, ANSI, ADA & CBM APPROVED FOR INTENDED SERVICE. MATERIAL AND INSTALLATION SHALL MEET REQUIREMENTS OF NATIONAL AND STATE ELECTRICAL CODE.
- COORDINATE ALL ELECTRICAL ITEMS WITH EXISTING FIELD CONDITIONS. LOCATIONS SHOWN ARE APPROXIMATE AND MAY REQUIRE MINOR ADJUSTMENT IN THE FIELD TO SATISFY THE DESIGN INTENT.
- DAMAGE TO EXISTING FACILITIES AND EQUIPMENT SHALL BE REPAIRED OR REPLACED IMMEDIATELY BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- THE LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND REQUIRE COORDINATION WITH ALL OTHER TRADES AND VERIFICATION OF EXISTING CONDITIONS. ROUTING OF CONDUIT IS DIAGRAMMATIC IN NATURE AND NOT INTENDED TO SHOW ALL REQUIRED OFFSETS AND DETAILS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING ASSOCIATED EQUIPMENT AND CONDITIONS. COORDINATE THE LOCATION OF ALL EQUIPMENT WITH THE ENGINEER AND THE OWNER. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER TRADES' DRAWINGS AND SPECIFICATIONS AND COORDINATING WITH ALL OTHER TRADES DURING CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUITY OF ALL POWER, CONTROL, AND COMMUNICATION FUNCTIONS TO ALL AREAS AFFECTED BY DEMOLITION AND/OR NEW CONSTRUCTION.
- CONTRACTOR SHALL NOT CUT ANY ACTIVE ELECTRICAL OR COMMUNICATIONS LINES DURING CONSTRUCTION. IF THE CONTRACTOR ACCIDENTALLY CUTS A LINE, THEN THEY SHALL CONTACT THE ENGINEER/OWNER IMMEDIATELY BEFORE PROCEEDING WITH FURTHER WORK.

SHEET KEYNOTES:

- PROVIDE NEW 2X2 JUNCTION WELL FOR INTERCEPTING EXISTING LIGHTING CIRCUIT. CIRCUIT SHALL BE EXTENDED TO NEW LIGHTING UNDER CANOPY.
- PROVIDE 1" PVC SCHEDULE 40 CONDUIT WITH 2 #10 + 1 #10G FOR NEW LIGHTING.
- VANDAL RESISTANT LINEAR FIXTURES SHALL BE CONTROLLED BY FACTORY PROVIDED PHOTOCELLS.



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PROJECT:
**EDNA C. DICKEY PARK
SITE IMPROVEMENTS**

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PROJECT NUMBER:
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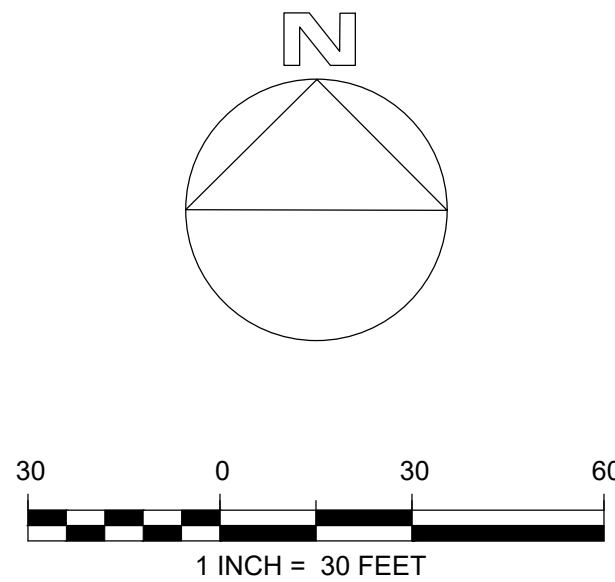
CONSTRUCTION PLAN

DRAWING TITLE:

**ELECTRICAL & LIGHTING
PLAN**

DRAWING NUMBER:

E-101



Submitted On: Aug 31, 2020 1/2 [Index Page](#)

Submitted On: Aug 31, 2020 2/2 Index Page

AL:

PREPARED FOR:
CITY OF NEWARK
PARKS AND
RECREATION
220 S MAIN STREET
NEWARK, DE 19711



REVISIONS

[illegible]

EDNA C. DICKEY PARK SITE IMPROVEMENTS

PROJECT LOCATION:
50 MADISON DRIVE
NEWARK, DELAWARE, 19711

PROJECT NUMBER:
20-03026-030

DATE:	SCALE:
07/26/2024	AS NOTED

CONSTRUCTION PLAN

DRAWING TITLE:

CUT SHEETS

DRAWING NUMBER:

E-102

SHEET NOTES

1. STABILIZED CONSTRUCTION ENTRANCE IS SHOWN AT RECOMMENDED LOCATION. CONTRACTOR MAY DETERMINE APPROPRIATE PLACEMENT DURING CONSTRUCTION, MOVING AS NECESSARY. STABILIZED CONSTRUCTION ENTRANCES WILL BE PLACED WHERE CONSTRUCTION VEHICLES WILL BE LEAVING THE SITE.
2. STABILIZE ALL AREAS WITHIN THE PROJECT LIMITS THAT HAVE BEEN IDLE FOR 14 DAYS.
3. ALL DISTURBED AREAS OF THE SITE WITHOUT PROPOSED IMPROVEMENTS SHALL BE SEEDED PER SPECIFICATIONS.
4. MAINTAIN ACCESS TO EXISTING GARDEN AT ALL TIMES.
5. CONTRACTOR TO COORDINATE TEMPORARY ACCESS TO BASKETBALL COURTS AND POOL AREA WITH OWNER.

LEGEND

- LOD — LIMIT OF DISTURBANCE (0.82 ACRES)
- CFL — COMPOST FILTER LOG
- INLET PROTECTION TYPE 2
- SCE STABILIZED CONSTRUCTION ENTRANCE WITH WASH RACK

EROSION & SEDIMENT CONTROL NOTES

1. THERE SHALL BE NO CONSTRUCTION ACCESS FROM THORN LANE.
2. THE CITY OF NEWARK PUBLIC WORKS AND WATER RESOURCES DEPARTMENT SHALL BE NOTIFIED IN WRITING 5 DAYS PRIOR TO COMMENCING WITH CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
3. REVIEW AND/OR APPROVAL OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLAN.
4. IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY DNREC OR THE CITY OF NEWARK.
5. FOLLOWING SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED FOR ALL PERIMETER SEDIMENT CONTROLS, SOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE WITHIN 14 CALENDAR DAYS UNLESS MORE RESTRICTIVE FEDERAL REQUIREMENTS APPLY.
6. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
7. AT ANY TIME A DEWATERING OPERATION IS USED, IT SHALL BE PREVIOUSLY APPROVED BY THE AGENCY CONSTRUCTION SITE REVIEWER FOR A NON-EROSIVE POINT OF DISCHARGE, AND A DEWATERING PERMIT SHOULD BE APPROVED BY THE DNREC WELL PERMITTING BRANCH.
8. APPROVED PLANS REMAIN VALID FOR 5 YEARS FROM THE DATE OF APPROVAL.
9. POST CONSTRUCTION VERIFICATION DOCUMENTS SHALL BE SUBMITTED TO THE CITY OF NEWARK PUBLIC WORKS AND WATER RESOURCES DEPARTMENT WITHIN 60-DAYS OF COMPLETION.
10. APPROVAL OF A SEDIMENT AND STORMWATER MANAGEMENT PLAN DOES NOT GRANT OR IMPLY A RIGHT TO DISCHARGE STORMWATER RUNOFF. THE OWNER/DEVELOPER IS RESPONSIBLE FOR ACQUIRING ANY AND ALL AGREEMENTS, EASEMENTS, ETC., NECESSARY TO COMPLY WITH STATE DRAINAGE AND OTHER APPLICABLE LAWS.
11. THE NOTICE OF INTENT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER A NPDES GENERAL PERMIT FOR THIS PROJECT IS # XXXX. THE PERMITTEE OF RECORD SHALL NOT BE RELIEVED OF THEIR RESPONSIBILITIES UNTIL A NOTICE OF TERMINATION HAS BEEN PROCESSED BY THE DEPARTMENT.
12. THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHALL BE CHECKED DAILY AND ADJUSTED OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
13. THE OWNER SHALL BE FAMILIAR WITH AND COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION GENERAL PERMIT ASSOCIATED WITH THE PROJECT, INCLUDING, BUT NOT LIMITED TO, PERFORMING WEEKLY SITE INSPECTIONS DURING CONSTRUCTION AND AFTER RAIN EVENTS, AND MAINTAINING WRITTEN LOGS OF THESE INSPECTIONS.
14. BEFORE ANY EARTHWORK OR EXCAVATION TAKES PLACE, THE CONTRACTOR SHOULD CALL MISS UTILITY AT 811 OR 1-800-282-8555 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO HAVE ALL EXISTING UTILITIES MARKED ONSITE.
15. BEST AVAILABLE TECHNOLOGY (BAT) SHALL BE EMPLOYED TO MANAGE TURBID DISCHARGES IN ACCORDANCE WITH REQUIREMENTS OF 7 DEL.C.H.60 AND THE CURRENT DELAWARE CONSTRUCTION GENERAL PERMIT (CGP).
16. DOCUMENTATION OF SOIL TESTING AND MATERIALS USED FOR TEMPORARY OR PERMANENT STABILIZATION INCLUDING BUT NOT LIMITED TO SOIL TEST RESULTS, SEED TAGS, SOIL AMENDMENT TAGS, ETC. SHALL BE PROVIDED TO THE CITY OF NEWARK PUBLIC WORKS AND WATER RESOURCES DEPARTMENT TO VERIFY THAT THE PERMANENT OR TEMPORARY STABILIZATION HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED PLAN.
17. THE CITY OF NEWARK MAY REQUIRE ADDITIONAL SOIL TESTING AND REAPPLICATION OF PERMANENT OR TEMPORARY STABILIZATION IN ACCORDANCE WITH THE SPECIFICATIONS IN THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, OR ALTERNATIVE MEASURES THAT PROVIDE FUNCTIONAL EQUIVALENCY.

HYDROLOGIC SOIL GROUP

ErB: Elisiboro-Delanco-Urban land complex, 0 to 8 percent slopes.
(Entire site comprised of ErB soil.)



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PROJECT LOCATION:

60 MADISON DRIVE
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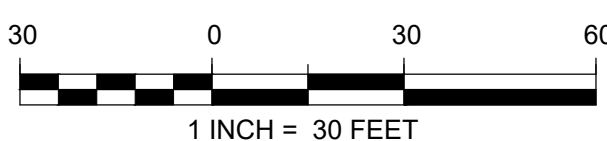
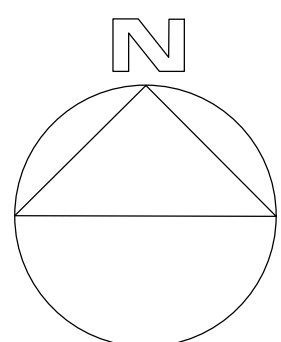
EROSION & SEDIMENT CONTROL PLAN

DRAWING TITLE:

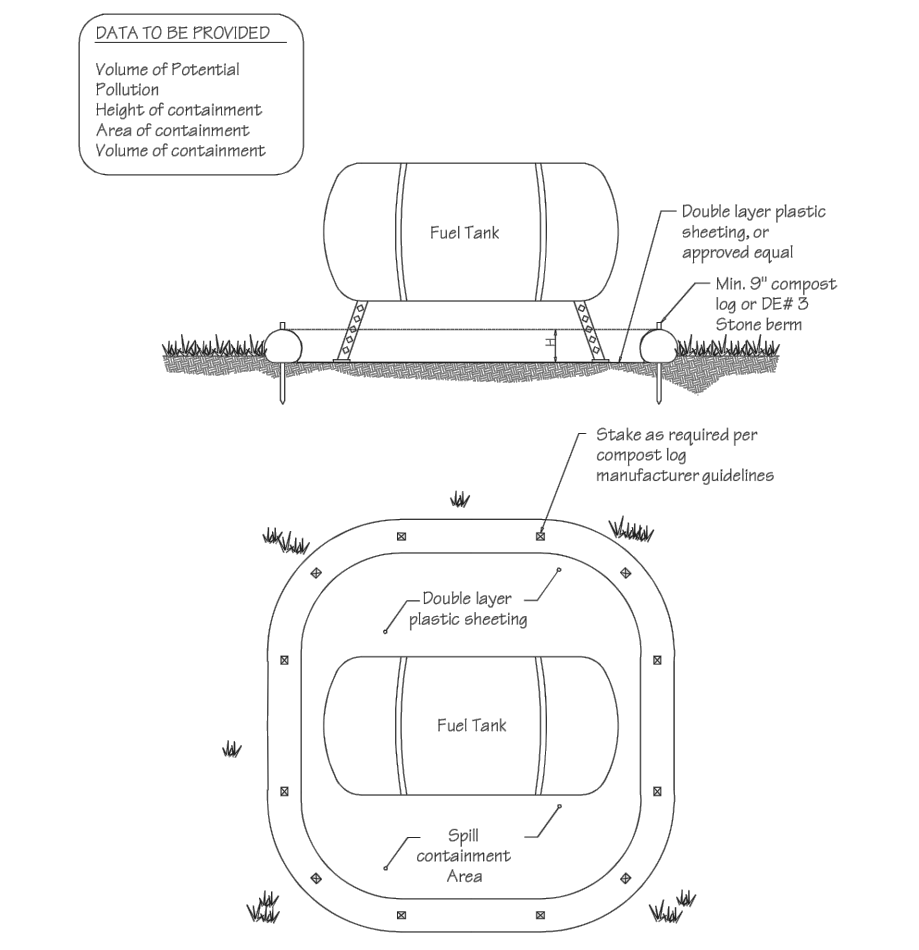
E&S PLAN

DRAWING NUMBER:

ES-101



Standard Detail & Specifications
Construction Site Waste Mgt & Spill Control



Source: Delaware ESC Handbook
Symbol:
Detail No. DE-ESC-3.6.1
Sheet 1 of 5
Effective FEB 2019

Standard Detail & Specifications
Mulching

- Application:
- Apply product to geotechnically stable slopes that have been designed and constructed to divert runoff away from the face of the slope.
 - Do not apply to saturated soils, or if precipitation is anticipated within 24-48 hours.
 - During the summer (March 1 to May 31 and fall September 1 to November 30) seasons, hydraulic mulches may be applied in a one-step process where all components are mixed together in single tank loads. It is recommended that the product be applied from opposing directions to achieve optimum soil coverage.
 - During the summer (June 1 to August 31 and winter December 1 to February 28) seasons, the following two-step process is required:
Step One: Mix and apply seed and soil amendments with a small amount of mulch for visual matting.
Step Two: Mix and apply mulch or manufacturer's recommended rates over freshly seeded surface. Apply from opposing directions to achieve optimum soil coverage.
e. Minimum curing temperature is 40°F (4°C). The best results and more rapid curing are achieved at temperatures exceeding 60°F (16°C). Curing times may be accelerated in high temperature, low humidity conditions on dry soils.
 - Recommended application rates are for informational purposes only. Conformance with this standard and specification shall be performed as based and requires 100% soil coverage. Any areas with bare soil showing shall be top dressed until full coverage is achieved.
 - Compost blanket (CB): Loosely applied with a pneumatic blower or flat "C" compost blanket uniformly covers the soil with 100% coverage. This application can be used with seed to provide germination by supplying the approved seed mix directly into the loosely blown compost. The compost blanket performs best on slopes less than 2:1 and requires no mulch matting.
 2. Anchoring mulch: Mulch must be anchored immediately to minimize loss by wind or water. It may be done by one of the following methods, depending upon site area, erosion hazard, and cost:
 - Crimping: A crimper is a tractor drawn implement designed to punch and anchor mulch into the top 20 inches of soil. This practice affords maximum erosion control but is limited to lighter slopes where equipment can operate safely. On sloping land, crimping should be done on the contour whenever possible.
 - Trailing: Trailing is the process of cutting mulch loosely above into the soil using a bulldozer or other equipment that runs on cleared tracks. Trailing is used primarily on slopes 3:1 or steeper and should be done up and down the slope with clear marks running across the slope.
 - Liquid mulch binders: Applications of liquid mulch binders should be heavier at edges, in valleys, and at crests of banks and other areas where the mulch will be moved by wind or water. All other areas should have a uniform application of binder. The use of synthetic binders is the preferred method of mulch binding and should be applied at the rates recommended by the manufacturer.
 - Paper fiber: The fiber binder shall be applied at a net dry weight of 250 lbs/acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons.
 - Netting: Synthetic or organic netting may be used to secure straw mulch. Install and secure according to the manufacturers recommendations.

Source: Delaware ESC Handbook & Filtrax International
Symbol:
Detail No. DE-ESC-3.4.5
Sheet 2 of 3
Effective FEB 2019

Standard Detail & Specifications
Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES (cont.)												
Seeding Method	Seeding Rate ¹	Optimum Seeding Dates ¹										Remarks
No. 1	Certified Seed	Soil Temp.	Soil Moist.	Soil Temp.	Soil Moist.	Soil Temp.	Soil Moist.	Soil Temp.	Soil Moist.	Soil Temp.	Soil Moist.	Soil Temp.
1	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
2	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
3	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
4	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
5	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
6	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
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12	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
13	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
14	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
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21	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
22	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
23	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
24	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
25	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
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43	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
44	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
45	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
46	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
47	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
48	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
49	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
50	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
51	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
52	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
53	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
54	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
55	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
56	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
57	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
58	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
59	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
60	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
61	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
62	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
63	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
64	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
65	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
66	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
67	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
68	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
69	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
70	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
71	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
72	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
73	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
74	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
75	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
76	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
77	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
78	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
79	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
80	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
81	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
82	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
83	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
84	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
85	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
86	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
87	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
88	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
89	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
90	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
91	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
92	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
93	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
94	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
95	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
96	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
97	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
98	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
99	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100
100	Phosphoric Acid	100	0.5	100	0.5	100	0.5	100	0.5	100	0.5	100