REVISION #1 - REVISED PRELIMINARY / FINAL SUBDIVISION & LAND DEVELOPMENT PLAN

ARCONA NEIGHBORHOOD 8.3

PLAN INDEX

NO.	SEC.	TITLE
01	CV-1 *	COVER SHEET
02	CV-2 *	COVER SHEET – NOTES
03	EX-1	EXISTING CONDITIONS
04	SD-1	SUBDIVISION PLAN
05	LY-1	ARCONA TND OVERVIEW
06	LY-2 *	LAYOUT PLAN
07	LY-3 *	PARCEL LABEL PLAN
08	LY-4	GUEST PARKING AND SNOW EASEMENT PLAN
09	BE-1	BUILDING SETBACK EXHIBIT
10	EA-1 *	EASEMENT PLAN – OVERALL
11	EA-2 *	EASEMENT PLAN – STORM DRAINAGE AND COMBINED ACCESS & UTILITY EASEMENTS
12	EA-3 *	EASEMENT PLAN – WATER, SNOW, & EMERGENCY ACCESS EASEMENTS
13	EA-4 *	EASEMENT PLAN – SANITARY SEWER EASEMENTS
14	TM-1	TURNING MOVEMENTS PLAN
15	CD-1	CONSTRUCTION DETAILS
16	CD-2	CONSTRUCTION DETAILS
17	CD-3	CONSTRUCTION DETAILS
18	CD-4	CONSTRUCTION DETAILS
19	UT-1	UTILITY PLAN
20	UT-2	UTILITY DETAILS
21	SM-1 *	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN – COVER
22	SM-2 *	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
23	SM-3 *	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
24	SM-4 *	POST CONSTRUCTION STORMWATER MANAGEMENT BASIN DETAILS
25	SM-5 *	POST CONSTRUCTION STORMWATER MANAGEMENT BASIN DETAILS
26	SM-6 *	POST CONSTRUCTION STORMWATER MANAGEMENT NOTES
27	PF-1	PLAN & PROFILE – ECKFORD PARK & OVERLOOK DRIVE
28	PF-2	PLAN & PROFILE – JAMES STREET, LEROY DRIVE & RIDGEVIEW AVENUE
29	PF-3	PLAN & PROFILE OFF-STREET UTILITIES
30	PF-4	PLAN & PROFILE OFF-STREET UTILITIES
31	PF-5	PLAN & PROFILE OFF-STREET UTILITIES
32	PF-6	PLAN & PROFILE – SWALES & EXISTING STORM SEWER
33	PF-7	PLAN & PROFILE – EMERGENCY ACCESS DRIVE
34	LA-1	LANDSCAPING PLAN
35	LA-2	LANDSCAPING DETAILS & NOTES
36	ES-1 *	EROSION & SEDIMENTATION CONTROL – COVER
37	ES-2 *	EROSION & SEDIMENTATION CONTROL PLAN
38	ES-3 *	EROSION & SEDIMENTATION CONTROL DETAILS
39	ES-4 *	EROSION & SEDIMENTATION CONTROL BASIN DETAILS
40	ES-5 *	EROSION & SEDIMENTATION CONTROL NOTES

* SHEET TO BE RECORDED AND SUPERCEDE CORRESPONDING SHEET ON PRELIMINARY / FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN FOR ARCONA NEIGHBORHOOD 8.3 RECORDED IN INSTRUMENT # 202421380

OWNER / DEVELOPER (ARCONA NEIGHBORHOOD 8.3):
Charter Homes at Arcona, Inc.
322 North Arch Street
Lancaster, PA 17603

SOURCE OF TITLE:
Tax Map 13-10-0256-226
Inst. No.: 202421380

OWNER / DEVELOPER (ARCONA NEIGHBORHOOD 8.2):
Charter Homes at Arcona, Inc.
322 North Arch Street
Lancaster, PA 17603

SOURCE OF TITLE:
Tax Map 13-10-0256-032
Inst. No.: 202301420

SITE ACREAGE:

ARCONA NEIGHBORHOOD 8.3 – GROSS AREA – 13.61 Ac.

SITE DATA:

ZONING:
R-2 Single-Family Residential
District (TND Overlay)

PROPOSED USE:

41 Single-Family Lots
52 Single-Family Attached Units
93 Total Units

PROPOSED WATER SERVICE:

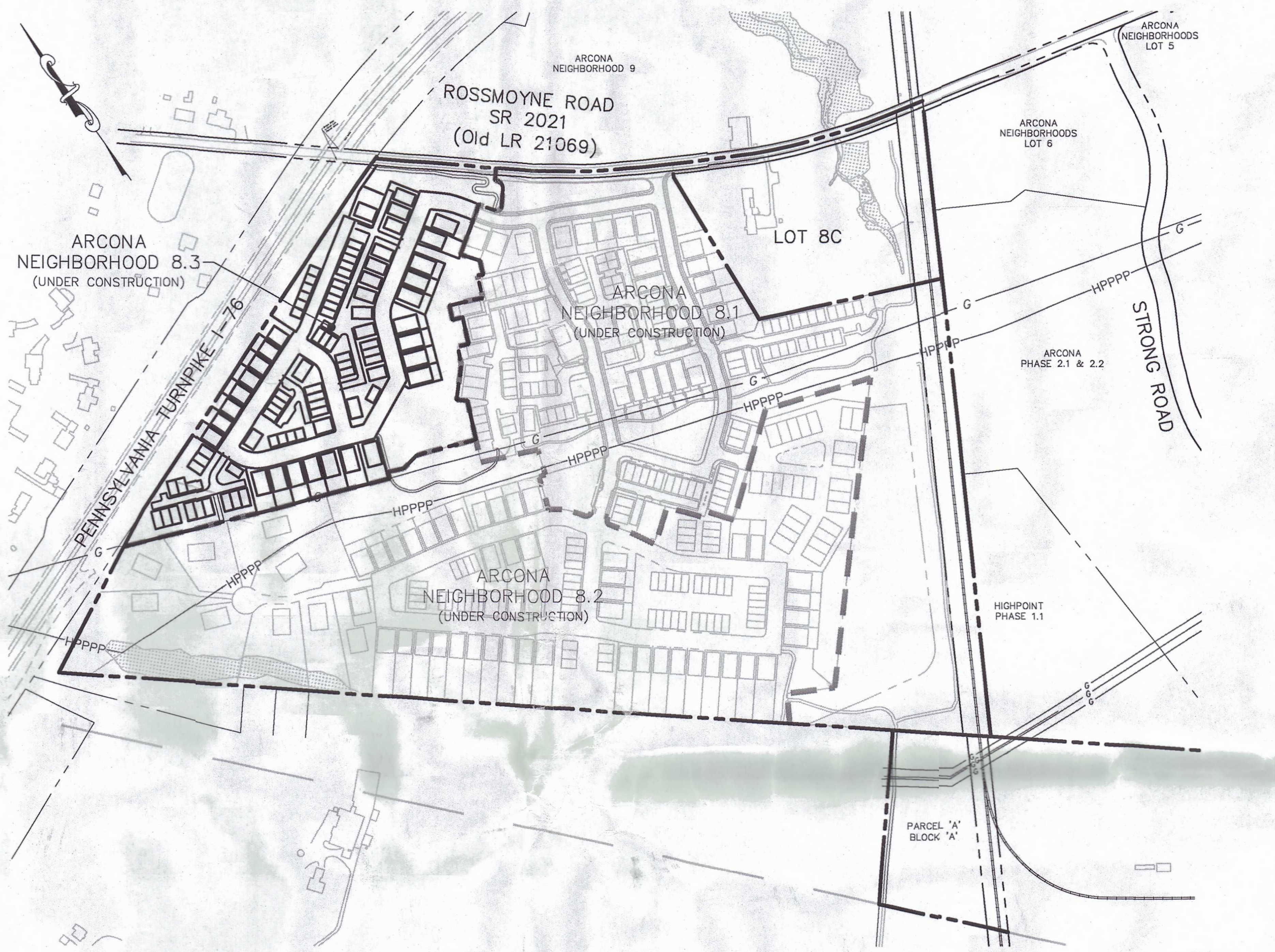
PUBLIC

PROPOSED SEWER SERVICE:

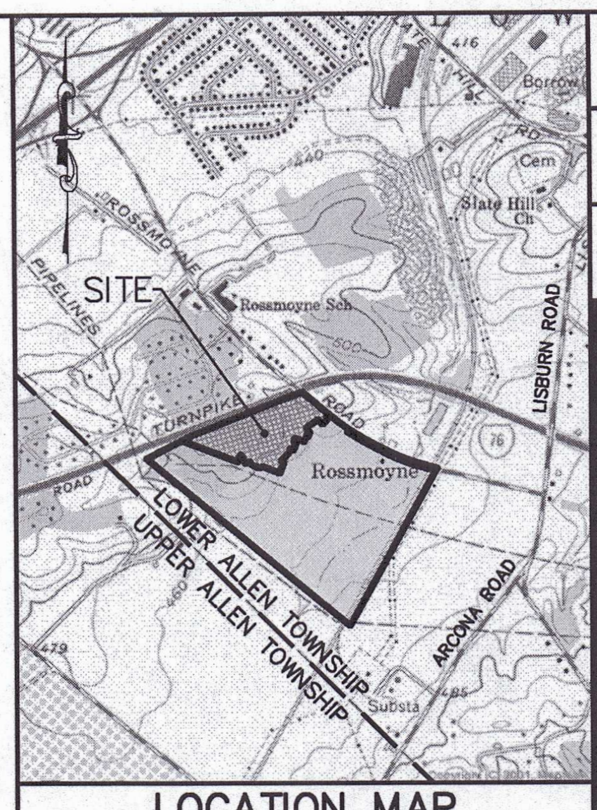
PUBLIC

NOTES:

1. PA ONE CALL, REQUESTED WAIVERS AND NOTES ARE LOCATED ON CV-2.
2. LEGENDS ARE LOCATED ON EX-1 & LY-1.
3. SOILS TABLE IS LOCATED ON EX-4.
4. THE OWNER(S) WILL PROVIDE A NOTARIZED CERTIFICATE OF OWNERSHIP SIGNATURE PRIOR TO FINAL PLAN RECORDATION.
5. SEE BUILDING AND PARKING SUMMARY ON LY-1.


ARCONA NEIGHBORHOOD 9
ROSSMOYNE ROAD SR 2021 (Old LR 21069)
ARCONA NEIGHBORHOODS LOT 5
ARCONA NEIGHBORHOODS LOT 6
ARCONA NEIGHBORHOOD 8.3 (UNDER CONSTRUCTION)
LOT 8C
ARCONA NEIGHBORHOOD 8.1 (UNDER CONSTRUCTION)
STRONG ROAD
PENNSYLVANIA TURNPIKE I-76
ARCONA PHASE 2.1 & 2.2
ARCONA NEIGHBORHOOD 8.2 (UNDER CONSTRUCTION)
HIGHPOINT PHASE 1.1
PARCEL "A" BLOCK "A"

PLAN: 1" = 300'



LOCATION MAP
SCALE: 1" = 2000'

CERTIFICATE OF ACCURACY (BOUNDARY & TOPO SURVEY)

THOMAS KILBORNE PHILLIPS
No.55399-E

I hereby certify that, to the best of my knowledge, the Boundary and Topographic survey shown and described hereon is true and correct to the accuracy required by the Subdivision and Land Development Ordinance of Lower Allen Township.

For Howell Surveying, LLC

3/7/2025

CERTIFICATE OF ACCURACY (LOT SURVEY)

G. MITCHELL KING
No. SU42004-E

I hereby certify that, to the best of my knowledge, the Lot survey shown and described hereon is true and correct to the accuracy required by the Subdivision and Land Development Ordinance of Lower Allen Township.

For Towne Square Engineering

G. Mitchell King 1/21/25

CERTIFICATE OF ACCURACY (PLAN)

G. MITCHELL KING
No. SU42004-E

I hereby certify that, to the best of my knowledge, the plan shown and described hereon is true and correct to the accuracy required by the Subdivision and Land Development Ordinance of Lower Allen Township.

For Towne Square Engineering

G. Mitchell King 1/21/25

STORMWATER MANAGEMENT DATA CERTIFICATION

G. MITCHELL KING
No. PE36683-E

I, G. Mitchell King, P.E., P.L.S., on this date 1/21/25 have reviewed and hereby certify that the drainage plan meets all design standards and criteria of the Lower Allen Township Act 167 Stormwater Management Ordinance.

For Towne Square Engineering

G. Mitchell King

The existing stone Emergency Access (aka Lesher Drive) off Eckford Park in Arcona 8.1 was approved by PennDOT and Lower Allen Township to provide a connection from Arcona Neighborhood 8 to Rossmoyne Road. The Emergency Access Drive was permitted as shown on sheet 53 of 71 (PF-2) of an approved plan titled "Preliminary / Final Subdivision and Land Development Plan, Arcona Neighborhood 8.1" and a Highway Occupancy Permit Plan titled "Arcona Phase 8 Existing Driveway", prepared by Traffic Planning & Design, Inc. Lower Allen Township is currently in discussion with PennDOT to convert the existing Emergency Access to a permanent driveway connection while maintaining the existing driveway connection to Rossmoyne Road at Wayland Road. Developer shall construct this permanent driveway connection if approved by PennDOT.

THIS REVISION # 1 – REVISED PRELIMINARY / FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN FOR ARCONA NEIGHBORHOOD 8.3 SUPERCEDES THE FOLLOWING AREA OF PRELIMINARY / FINAL PLAN FOR ARCONA 8.3 LAST REVISED OCTOBER 22, 2024 AND CONDITIONALLY APPROVED BY THE BOARD OF COMMISSIONERS AT THEIR MEETING ON SEPTEMBER 9, 2024 AND RECORDED IN INSTRUMENT # 202421380:

- REVISE LOCATION OF ARCONA 8.3 EMERGENCY ACCESS DRIVE.

BMP CERTIFICATION

I acknowledge the stormwater management facilities and BMPs to be permanent fixtures that can be altered or removed only after approval of a revised plan by the municipality.

Laura Curran
LANDOWNER
Laura Curran, Manager

CERTIFICATE FOR REVIEW BY THE TOWNSHIP PLANNING COMMISSION

Reviewed by the Township Planning Commission, Lower Allen Township, Cumberland County, PA

Reviewed this ______ day of ____________________, 20____.

Chairman
Secretary

CUMBERLAND COUNTY PLANNING DEPARTMENT

REVIEWED THIS 7 DAY OF May, 20 24
BY THE CUMBERLAND COUNTY PLANNING DEPARTMENT.

Kirk Stoner (JC)
DIRECTOR OF PLANNING

CERTIFICATE FOR APPROVAL BY THE BOARD OF COMMISSIONERS

Approved by the Board of Commissioners, Lower Allen Township, Cumberland County, PA

Approved this 10th day of February, 20 25.

Conditions of Approval Completed this 10th day of March, 20 25.

President Jennifer M. Caron
Secretary Rebecca L. Davis

CERTIFICATE OF OWNERSHIP, ACKNOWLEDGMENT OF PLAN AND OFFER OF DEDICATION

COMMONWEALTH OF PENNSYLVANIA,
COUNTY OF LANCASTER

On this, the 10th day of March, 20 25, before me, the Laura Curran (CK) undersigned person, personally appeared ~~Anthony Faranda-Diedrich~~, being Authorized Signatory of the Charter Homes at Arcona Inc., a Pennsylvania company, who being duly sworn according to the law, deposes and says that the company is the Owner of the property shown on this plan, that they are authorized to execute said plan on behalf of the company, that the plan is the act and deed of the company, and that the company desires the same to be recorded and on behalf of the company.

Commonwealth of Pennsylvania - Notary Seal
Cynthia K. Lucci, Notary Public
Lancaster County
My commission expires April 19, 2028
Commission number 1205386
Member, Pennsylvania Association of Notaries

Cynthia K. Lucci
Notary Public

My Commission Expires April 19, 20 28

It is hereby certified that the undersigned are the owner(s) of the property shown in this plat and that all streets, easements and right-of-way or part thereof, if not previously dedicated are hereby tendered for dedication to the public use. The stormwater management facilities and BMP's to be permanent fixtures can be altered or removed only after approval of a revised plan by Lower Allen Township.

Owner: Laura Curran
Charter Homes at Arcona, Inc.
Authorized Signatory
Laura Curran, Manager

Sheet Number: 01 of 40
Project Number: 15-100-34
Date: APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3
Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

COVER SHEET

Project Manager: DAVID B. KEGERIZE PE
Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS
Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS
Scale: 1"=300'
0 150 300 600 900

Seal:

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number: CV-1

1/22/2025 9:55 AM L:\15-100-34\SHEETS\PRELIMINARY\01 CV-01.DWG

PRELIMINARY / FINAL

SURVEY NOTES:

1. The property boundaries depicted for Phase 8.3 are shown per the "Preliminary/Final Land Development and Subdivision Plan – Arcona Neighborhood 8.2", originally dated April 12, 2022 and last revised October 4, 2022. Being "Lot 8A" of said plan. Recorded at the Cumberland County Recorder of Deeds, Instrument # 202230603.
2. The existing features shown within the right-of-way of Rossmoyne Road are from a survey by Howell Kline Surveying, LLC, performed on December 3 & 4, 2019 and January 10, 2022. The existing features shown within Lot 8A are from a survey by Howell Kline Surveying, LLC, performed on March 21, 2024. The existing topography shown is based on a combination of an aerial lidar survey and a field survey by Howell Kline Surveying, LLC, performed on March 21, 2024.
3. The horizontal datum is relative to NAD83 (2011), EPOCH 2010.0000, PA State Plane South Coordinate System, Zone 3702. The vertical datum is relative to NAVD88, GEOID12A. Both datums were established using GPS observation. Site Benchmark #1 is a Mag Nail located within the pavement on the western side of Rossmoyne Road, being approximately 330' southeast of the southern end of the PA Turnpike overpass, elev.=496.22. Site Benchmark #2 is a mag nail located within the pavement near the western curbline intersection of Herr Street and Trow Street, elev.=471.09. Both benchmarks were established using the previous sanitary manhole site benchmark described on the aforementioned recorded plan for Arcona Neighborhood 8.2, elev.=429.44.
4. All features shown are existing unless otherwise noted.
5. Gross lot area is calculated to the title line. Net lot area will exclude existing street and railroad right-of-ways and include any internal, easements or right-of-ways.
6. The marker designation (set) indicates that the described marker will be set as part of this survey. The designation (fnd) indicates that the marker was found during the field survey. Open circle with no designation indicates no marker found or set as part of this survey.
7. The soils and soils data shown on this plan are taken from the NRCS Web Soil Survey, run done on August 17, 2010.
8. Monuments must be set (1) at the intersection of lines forming angles in the boundaries of the subdivision, (2) at such intermediate points as may be required by Municipal Engineer. Markers shall be set (1) at all corners except those monumented, (2) at the intersections of all street right-of-way lines, and (3) by the time the property is offered for sale.
9. The intent of this plan is to:
   a. Create the Arcona Neighborhood 8.3 Development Site which includes single-family detached lots, single-family attached units, and Open Space areas within Arcona Neighborhood 8.3.
   b. The Arcona Neighborhood 8.3 Development Site, Lot R will be created from Lot 8A from land currently owned by Ruth D. Lesher, and Strong & Detweiler.
   c. Provide new sanitary sewer and storm sewer easements for the proposed development of Arcona Neighborhood 8.3.
10. A FEMA designated floodplain is not present on the Arcona Neighborhood 8.3 property.
11. Utilities are shown based on surface evidence and information provided by the public utilities companies through the PA One Call System. All underground utility locations depicted on this plan are considered approximate and must be field verified by the site contractor prior to construction. PA One Call No. 20240612619.
12. Towne Square Engineering does not make any representation, warranty, assurance or guarantee that the underground utility location information provided by others and reflected on these drawings is correct and accurate. Towne Square Engineering assumes no responsibility for any damage incurred as a result of underground utilities omitted or inaccurately shown.

WETLANDS NOTES:

1. The Wetland Delineation on the Arcona Neighborhood 8 project report was performed by Vortex Environmental, Inc. dated July 29, 2019 and updated by Vortex Environmental, inc. on November 9, 2021. Field location of wetland flags was performed by Howell Kline Surveying, LLC. A field inspection of Arcona 8.3 was conducted by Vortex Environmental, Inc. on March 21, 2024 and letter report issued on March 26, 2024 siting no evidence of wetlands on Arcona 8.3.
2. No earth disturbance, fill or other encroachment shall be permitted within the wetlands, Waters of the U.S. or Waters of the Commonwealth shown on these plans without prior approval of the proper Federal, State and Local Authorities.

GENERAL DESIGN NOTES:

1. Applicant submitted an Arcona Overall Master Plan to Lower Allen Township. Arcona Neighborhood 8.3 is part of Arcona.
2. Any revisions made to these plans after the date of plan preparation or latest revision date shall not be the responsibility of TOWNE SQUARE ENGINEERING.
3. The footprints and configurations of buildings, driveways, and their locations within lots, as depicted on these plans, are illustrative only and intended to demonstrate material compliance with Lower Allen Township ordinance requirements. The actual footprint, configuration and location of each building or driveway that is to be constructed shall be depicted in building permit plans that are submitted with the building permit application for each such building. All such buildings and driveways shall comply with all applicable Lower Allen Township ordinance requirements.
4. It is the responsibility of the Developer to obtain any and all permits or approvals required for the construction of the improvements shown on this plan. All construction shall be in conformance with the Lower Allen Township specifications in effect at the time of construction.
5. It is the Contractor's responsibility to be aware of applicable standards and specifications as well as the required methods of construction. All deviations from the plans must be approved prior to construction.
6. Any blasting will require obtaining a State Permit and prior notification to the Township.
7. No building construction shall occur until the building permits are issued in accordance with Lower Allen Township.
8. No permit will be issued for any additional installation or construction of impervious coverage unless Lower Allen Township has approved a Drainage Plan in accordance with the Lower Allen Township Stormwater Management Ordinance.
9. No one shall scale from these plans for construction purposes.
10. Connection to public sewer and public water is required for all new lots and units.
11. The Township is not responsible for construction or maintenance of any facility not dedicated for public use. Sanitary sewer facilities are proposed to be dedicated to Lower Allen Township Authority. Potable water facilities are proposed to be dedicated to PA American Water Company.
12. It will be the Contractor's responsibility to ensure that the grading plan is implemented correctly, and that proper drainage is provided during construction.
13. Lower Allen Township shall be notified in the event sinkholes are encountered during construction. The services of a registered geologist shall be obtained to assist in recommending construction techniques and permanent facilities necessary to avoid further sinkhole creation and with regard to the repair of any existing sinkholes.
14. Representatives of the Township may enter, at reasonable times, upon any property, within the Township, to investigate or ascertain the condition of the subject property in regard to any aspect regulated by the Lower Allen Township Subdivision / Land Development and / or Stormwater Management Ordinance.
15. Contractor shall schedule a preconstruction site meeting with the Township Engineer at least 48 hours prior to starting site construction activities.
16. Site disturbance is permitted to start only if and when sufficient time is available to stabilize disturbed areas in accordance with PADEP requirements and with the approved plan.
17. A Neighborhood Association (NA) will own and maintain all open space areas. The owner or NA will be responsible to remove snow from off-street parking areas and private streets / alleys.
18. All streets are private to be owned and maintained by the NA. Eckford Park (Extended) is a public street.
19. Recreation requirements are to be satisfied in accordance with the recreation proposal in the Overall Master Plan accepted by the Board of Commissioners on December 14, 2015. Under SALDO Section 192-60 E & F and Lower Allen Township fee schedule, Charter Homes is proposing to provide a recreation fee per dwelling unit in lieu of recreation land in the amount of (i) $1,000 when the cumulative density for the Arcona TND, is less than or equal to six dwelling units per acre, (ii) $1,250 when such cumulative density is greater than six but less than or equal to seven dwelling units per acre, (iii) $1,500 when such cumulative density is greater than seven units per acre. This recreation fee per dwelling unit shall be paid when individual building permits are issued for the community, and shall be reduced by the following:

    A. Construct trails through Arcona Neighborhoods Open Space 34 & 35.

20. Highpoint, Arcona Phase 2.1, 2.2, 2.3, Arcona Neighborhood 8.1, 8.2, & 8.3 propose a total of 942 (928) dwelling units on 147.3 acres, which equates to a density of 6.30 dwelling units per acre. Pursuant to Sections 220-126.A and B of the Zoning Ordinance and Section 192-68.E of the SALDO, this density is permitted because (i) cumulatively for such phases, 30.1 acres of common open space is proposed to be provided, which exceeds 150% of the amount of common open space that is required under Section 220-131 of the Zoning Ordinance, and (ii) recreation fees are to be paid based upon approved cumulative density as provided in General Design Note 19 above.
21. No vibratory rollers shall be utilized over the underground pipelines, unless a minimum of 4 feet of cover is achieved. At this point, the roller shall only be used in static mode only. Hand equipment shall be used by until that point.
22. Proposed material stockpiles and equipment staging areas should be removed from easement unless gas pipeline right-of-way departments provide approval.
23. No cranes will be permitted within the pipeline right-of-way without a Buckeye person onsite.
24. Reinforced concrete is not permitted within the gas pipeline right-of-way.
25. See Buckeye Partners, LP specifications on sheets CD-3 and CD-4.
26. When any construction activity is conducted in or around the Buckeye pipeline right-of-way, Buckeye's On-Site Inspector must be present at all times. NO WORK SHALL TAKE PLACE WITHOUT A BUCKEYE ON-SITE INSPECTOR PRESENT. For this free-of-charge service, contact Buckeye's local Field Operations Manager.
27. Backfill over Buckeye's Right-of-Way shall be clean fill; with soil moisture content within ±2% of optimum moisture content, free of organic material, placed in lifts and compacted by hand until 18-inches of cover is achieved. Compaction above the 18- inches of cover shall be performed with a walk-behind unit. Vibratory rollers are not permitted to operate in dynamic vibratory mode within Buckeye's ROW. Rollers may operate within Buckeye's ROW in static mode provided 5-feet of cover over the HPPPP is verified. Compaction shall be to the same degree of compaction of the surrounding areas.
28. Snow removal activities shall not stockpile snow and ice within Buckeye's HPPPP.
29. No utility bends, elbows, transitions or connections shall be located within 25-feet of Buckeye's HPPPP.
30. All waterline and sanitary sewer joints within 50-feet of Buckeye's HPPPP shall be installed with Nitrile gaskets and the crossing utilities shall be wrapped with a tracer wire within 25-feet of the crossing location.
31. When any construction activity is conducted in or around the UGI pipeline right-of-way, UGI's On-Site Inspector must be present at all times. NO WORK SHALL TAKE PLACE WITHOUT A UGI ON-SITE INSPECTOR PRESENT. For this free-of-charge service, contact UGI's local Field Operations Manager.
32. ADA compliant ramps shall be constructed at all locations where sidewalk and trails intersect vehicular traffic.
33. Per Zoning Section 220-127.B, there are no multi-family, live-work nor accessory dwelling units located in Neighborhood 8.3.
34. Applicant and Owner acknowledge that certain site improvements depicted on this plan, including but not limited to accessible parking spaces, accessible route to the building and freestanding signs, that require approval under regulations contained in the PA uniform construction code and/or Lower Allen Township zoning code must be installed in accordance with separate permit approvals granted under those regulations.
35. Cluster mailboxes for Arcona Phase 8.3 will be located adjacent to existing cluster mailbox locations for Arcona Phase 8.1 & 8.2 near the Arcona Swim Club off Parade Street.

GENERAL UTILITY NOTES:

1. All easements shall be kept free of structures, fill and other encroachments that may adversely affect the function of the easement. The Owner shall not construct, plant, or maintain any structures, fences, trees, shrubbery, etc. within the sanitary sewer, stormwater or utility rights-of-way/easements, to ensure a free and clear access to all facilities.
2. Electric, telephone, cable television, gas and all other utilities shall be installed underground and a minimum of five feet from sewer main center line, Developer responsible for enforcement and relocates.
3. As-built plans will be required prior to dedication of public improvements including completed stormwater facilities.
4. All proposed utility companies shall review the Final Plans prior to construction.
5. Metallic tape shall be placed 6" above the top of all installed utilities.
6. Electric transformers, communication boxes, gas meters, and water meters shall be kept a minimum of five feet from sewer main center line, Developer responsible for enforcement and relocates.

UTILITY NOTES – SANITARY SEWER:

1. Public sewer service to be provided by the Lower Allen Township Authority.
2. The sewer components of the Arcona Neighborhood 8.3 Subdivision and Land Development Plan must be approved by the Lower Allen Township Authority.
3. Developer offers for dedication to the Lower Allen Township Authority all sanitary sewer collection and/or interceptor lines constructed by the Developer with appurtenances and a perpetual easement for the maintenance, repair, replacement or enlargement thereof, together with the right of ingress, egress and regress thereof as shown on this plan.
4. Sanitary sewer laterals shall not be placed in driveway areas, except where no alternative exists as determined by the Developer.
5. All sanitary sewer construction and materials shall be accordance with the latest edition of the Lower Allen Township Authority rules and regulations.
6. Manhole frame and cover shall be Lower Allen Township Authority Standard.
7. All manhole frames must be bolted to the manhole by four (4) ¾" stainless steel bolts spaced evenly around the frame, and imbedded at least 3" into the manhole. Manholes and sanitary sewer lines must be at least five (5') feet from the face of curb.
8. Sanitary sewer pipe shall be manufactured to meet ASTM specifications D-3034-SDR35.
9. Sanitary sewer pipe shall have a minimum of 5'-0" cover.
10. Maximum spacing between clean-outs is fifty (50) feet. Cleanouts shall be located 5' from building exterior.
11. Existing sewer main flow and service shall be maintained during all phases of construction. The contractor shall provide a work plan prior to starting sewer construction that shows how flow will be maintained.
12. Maintenance and repair of sanitary sewer laterals off sanitary sewer mains within Arcona Neighborhood 8.3 will be the responsibility of the individual single-family lot owners. The Neighborhood Association is responsible for maintenance and repair of sanitary sewer laterals to all townhouse dwellings.
13. Subgrade must be completed prior to sanitary sewer construction.
14. The site shall be graded to the proposed new sub-grade elevation prior to starting sewer line construction.
15. The Property Owner is responsible for final surface restoration in non-public paved roads after Authority sewer main external repair and backfill to sub-grade.
16. Trees shall not be planted within sewer easements.
17. Retaining walls shall not be placed within sewer easements without prior Authority approval.
18. Manholes in non-paved areas shall have watertight frame and covers.
19. All non-residential units shall have separate water meters.
20. Manholes having a depth greater than 12.5 feet shall have an inside diameter of 6 feet.
21. Inside drop connections at manholes are not permitted without Authority prior approval.
22. Abandoned sewer pipe and manholes shall be completely removed.
23. Changes in the approved plan sewer components require a revised plan submission and approval prior to construction.
24. Sewer lateral connections to the sewer main are not allowed until all sewer main testing is complete, a sewer permit has been issued, and the lateral is inspected by the Authority from sewer main to building outside frame.
25. Sanitary sewer lateral traps between the sewer main and outside building wall are not permitted.
26. Authority inspector to be present when utilities crossing the sewer main are constructed.

UTILITY NOTES – WATER SERVICE:

1. Public water service to be provided from Pennsylvania American Water Company.
2. Water laterals shall not be placed in the driveway area, except where no other alternative exists.
3. All water line construction shall be in accordance with Pennsylvania American Water design drawings.
4. Hydrant and fire flow requirements of Section 192-61.B to be met prior to occupancy.
5. Final location of hydrants must be approved by the Lower Allen Department of Public Safety.

UTILITY NOTES – STORM DRAINAGE:

1. Ownership and maintenance of stormwater facilities within the lots shall be the responsibility of the lot owner. Maintenance and ownership of storm sewer, swales and all other storm water related facilities located outside of the right-of-way is the responsibility of the property owner on which the facilities are located. Stormwater management facilities shall be maintained in design condition and free of fill and other obstructions.
2. All stormwater facilities not within the public street right of way shall be provided with an easement as shown on the plans.
3. All storm drainage pipe shall be smooth interior unless otherwise noted.
4. All storm sewer materials and installation shall be per the Lower Allen Township specifications as amended.
5. A revision which involves a change in Stormwater Management control methods or techniques, or which involves the relocation or redesign of control measures, or which is necessary because soil or other conditions are not as stated on the approved plan, shall require a resubmission by the applicant in accordance with the plan requirements as set forth in the Stormwater Management Ordinance.
6. Nothing shall be placed, planted, set or put within the area of an easement that would adversely affect the function of the easement.
7. Lower Allen Township shall have the right to:
   a. Access the site to inspect stormwater facilities at any reasonable time.
   b. Require that the land owner take corrective measures and assign the land owner reasonable time periods for any necessary action.
   c. Authorize Maintenance to be done and lien all cost of all work against the properties or the private entity responsible for maintenance.
8. The Municipal Engineer or his/her designee shall be permitted to inspect all phases of the installation of the permanent stormwater management facilities and BMPs.
9. The Municipal Engineer or his/her designee shall be permitted to inspect all phases of the site development work in progress, to ensure compliance with erosion and sediment control requirements. Inspection functions under this section may be delegated by the municipality to another entity if such agreement is entered into by the municipality.
10. During any state of the work, if the Municipal Engineer determines that the permanent stormwater management facilities or BMPs are not being installed in accordance with the approved SWM site plan, the municipality shall revoke any existing municipal permits and/or issue a stop-work order until a revised SWM site plan is submitted and approved, as specified in this chapter.
11. If the Township determines, at any time, that any permanent stormwater management facility has been eliminated, altered or improperly maintained, the landowner of the lot shall be advised of corrective measures required and given a reasonable period of time, within which to take such corrective action. If such corrective action is not taken by the owner, the Township may cause the work to be done and shall take the appropriate action to a file a municipal claim pursuant to the PA Municipal claims and tax liens Act.
12. Upon presentation of proper credentials, duly authorized representatives of the municipality may enter at reasonable times upon any property within the municipality to inspect the implementation, condition, or operation of the stormwater BMPs in regard to any aspect governed by this chapter.
13. BMP owners and operators shall allow persons working on behalf of the municipality ready access to all parts of the premises for the purposes of determining compliance with this chapter.
14. Persons working on behalf of the municipality shall have the right to temporarily locate on any BMP in the municipality such devices as are necessary to conduct monitoring and/or sampling of the discharges from such BMP.
15. The Developer shall be responsible for completing a "Record Survey" of all stormwater management facilities included with the approved stormwater management plan.
16. Lot owner is required to maintain lot grading and surface drainage patterns and characteristics in accordance with the approved plan.
17. Lot owner shall be responsible for the implementation and maintenance of soil erosion control measures.
18. Manhole covers for storm manholes shall be cast with the word "Storm" for identification purposes.
19. Construction of all work within the public street right-of-way and work related to storm drainage facilities requires inspection by the Township. Provide a minimum 48 hour notice to the Township before starting work.

GENERAL STREET NOTES:

1. All work shall be in accordance with PennDOT Publication 408, specifications and Publication 72, Roadway Construction Standards, unless otherwise noted.
2. Work Zone Traffic Control shall be in accordance with PennDOT Publication 213 and approved HOP plan for improvements.
3. A Right-of-Way Permit is required before starting any work within the public street right-of-way.
4. The Developer shall be responsible for the installation and maintenance of all traffic control signs and pavement markings. All pavement markings shall be hot thermoplastic.
5. Traffic control signs and pavements markings shall be installed in accordance with all PennDOT standards and regulations in effect at the time of street dedication.
6. Exact designation of "on-street" parking spaces will be subject to driveway, utility locations, sight distance and emergency vehicle access (See LY-4).
7. Pedestrian crossings shall be clearly delineated.
8. All handicapped accessible ramps shall be designed and constructed in accordance with the applicable standard requirements by PADOT.
9. No buildings, wall, fence, landscaping or plantings shall be erected, altered or maintained, and no hedge, tree or growth shall be planted or maintained, which, in each case, exceeds 30 inches within the clear sight distance at intersections. Any tree limbs extending into the clear sight distance must be limbed to a height greater than 8 feet.
10. Arcona Neighborhood 8.3 street Eckford Park (extended) shall be a private street. All other streets and alleys are to be private – owned and maintained by the Neighborhood Association.
11. Street access for proposed residential lots shall be from internal streets and alleys, under no circumstance shall proposed residential lots be permitted access to Rossmoyne Road.

SLOPE REINFORCEMENT AND RETAINING WALL NOTES:

1. Slope reinforcement and retaining walls shall be designed by a Professional Engineer experienced in geotechnical and retaining wall design. Specific calculations and design details will be provided to Township prior to construction.
2. A licensed geotechnical engineer qualified in soils and with experience in segmental retaining walls shall oversee and certify the construction of all retaining walls.
3. A licensed geotechnical engineer qualified in soils and with experience in slope reinforcement shall oversee and certify the construction of all slope reinforcement.
4. A geotechnical engineer shall have all soils tested and approved for use in the construction of the retaining wall prior to their construction.
5. Copies of all geotechnical reports, site observations and soil testing performed in relation to slope and retaining wall design and construction shall be provided to Lower Allen Township as they become available.
6. All soils shall be compacted to 95% of the maximum dry density as specified by the modified proctor method (ASTM-d1557) or as otherwise directed by the site geotechnical engineer.
7. Upon completion of each retaining wall, the geotechnical engineer shall submit to Lower Allen Township a geotechnical report documenting all parameters actually used in the field, provide comparison to the design values and document the acceptability of the as-built conditions.
8. All stabilized slopes and retaining walls shown on plan shall be maintained by the NA.

WAIVERS:

LIST OF REQUESTED WAIVERS & MODIFICATIONS

At a meeting held on September 9, 2024, the Lower Allen Township Board of Commissioners approved the following waivers and modifications of the Lower Allen Township Subdivision and Land Development Ordinance:

1. Waiver from Section 192-24.C requiring Preliminary plan submittal.
2. Modification of Section 192-57-B.(2)(h)[2] and 192-57-C.(13)(c)[1] require only the the right of way width and cartway width that is required by PennDOT for Rossmoyne Road.
3. Waiver of Section 192-57.C.8 requiring installation of curbs along Rossmoyne Road.
4. Waiver of Section 192-57.C.9 requiring installation of sidewalk along Rossmoyne Road.
5. Modification of Section 192-57.C.(1), requiring 50' wide street right-of-way (allow 48' wide right-of-way and 30' wide right-of way).
6. Modification of Section 192-63.A(3) requiring curbing to meet PennDOT Pub 408 standards (allow Belgian Block).
7. Modification of Section 192-68.B(3) requiring minimum street centerline radius of 165' (allow <165' on Overlook Drive, Ridgewood Drive and Leroy Drive).

Know what's **below.**
Call before you dig.

Before You Dig Anywhere

In...

PENNSYLVANIA

STOP! CALL 811 (or 1-800-242-1776 outside of PA)
TOLL FREE

PA Act 287 (amended by Act 121 (2008)) requires notification to ONE CALL SYSTEM 3 working days for construction phase and 10 working days for design phase before you excavate.

PA ONE CALL SYSTEM, INC.

DESIGN PHASE SERIAL # 20240612619 (LOWER ALLEN TOWNSHIP)
(CALL MADE BY : Howell Kline Surveying, LLC)

Howell Kline Surveying, LLC.. does not guarantee the accuracy of the locations for existing subsurface utility lines, structures, etc. shown on the plans, nor does Howell Kline Surveying, LLC. guarantee that all subsurface utility lines, structures, etc. are shown.
Contractor shall verify the location and elevations of all subsurface utility lines, structures, etc. before the start of work, by calling the Pennsylvania One Call System at 1-800-242-1776.

Utilities Listing – Lower Allen Township

Verizon Pennsylvania Inc
1026 Hay St.
Pittsburgh, PA 15221
Contact: Deborah Barum
Email: deborah.d.delia@verizon.com

Buckeye Partners
The Buckeye Building
6161 Hamilton Blvd.
Allentown, PA 18106
Contact: Dave Jones
Email: dajones@buckeye.com

Lower Allen Township Authority
120 Limekiln Rd.
New Cumberland, PA 17070
Contact: Brian Kauffman
Email: bkauffman@latwp.org

Lower Allen Township
2233 Gettysburg Rd.
Camp Hill, PA 17011
Contact: Bryce Thompson
email: bthompson@latwp.org

Sprint
484 Williamsport Pike
PO Box 113
Martinsburg, WV 25404
Contact: Wesley Carpenter
Email: wesley.a.carpenter@tmobile.com

PPL Electric Utilities Corporation
434 Susquehanna Trl.
Northumberland, PA 17857
Contact: Doug Haupt
Email: dlhaupt@pplweb.com

Comcast Cable Communications Inc
4601 Smith Street
Harrisburg, PA 17109
Contact: Michael Sweigard
Email: m_sweigard@cable.comcast.com

Upper Allen Township
100 Gettysburg Pike
Mechanicsburg, PA 17055
Contact: Kodi Hockenberry
Email: khockenberry@uatwp.org

UGI Utilities Inc
1301 Aip Dr.
Middletown, PA 17057-5987
Contact: Stephen Bateman
Email: sbateman@ugi.com

Windstream
1450 Center Point Rd.
Hiawatha, IA 52233
Contact: Locate Desk Personnel
Email: locate.desk@windstream.com

Centurylink
1025 Eldorado Blvd.
Broomfield, CO 80021
Contact: Century Link Operator Personnel
Email: relocations@lumen.com

Firsst Energy Penelec
21 S Main St.
Akron OH, 44308
Contact: Cara Warren
Email: carawarren@firstenergycorp.com

SUEZ Water Pennsylvania Inc
6310 Allentown Blvd.
Harrisburg, PA 17112
Contact: Nat Sheffer
Email: nathaniel.sheffer@suez.com

Pennsylvania American Water
852 Wesley Dr
Mechanicsburg, PA 17055
Contact: Jeff Horton
Email: jeff.horton@amwater.com

ZONING INFORMATION - ARCONA Neighborhood 8.3

LOCATION: Off Rossmoyne Road, Lower Allen Township, Cumberland County, PA

ZONE: R-2, Single-Family Rural Residential District, Traditional Neighborhood Development Overlay

PROPOSED USE: 41 Lots SF-Detached & 52 Units SF-Attached - (Including accessory structures to single-family dwellings)

#	ITEM	REQUIRED	PROPOSED	VARIANCE
1	MAXIMUM BUILDING HEIGHT	40 ft.	40 ft.	NO
2	MAXIMUM DENSITY - Arcona to Date + Highpoint (See TND Tracking by Neighborhood Chart on LY-1)	4 Dwelling Units per ac. (up to 8)	+/- 6.30	NO
3	MINIMUM LOT AREA - Single-Family Detached	4,000 s.f.	4,000 s.f.	NO
4	MINIMUM LOT AREA - Single-Family Attached (Townhouse)	1,560 s.f.	1,560 s.f.	NO
5	MINIMUM LOT WIDTH - Single-Family Detached	40 ft.	40 ft.	NO
6	MINIMUM LOT WIDTH - Single-Family Attached (Townhouse)	20 ft.	20 ft.	NO
7	IMPERVIOUS COVER - Arcona to Date + Highpoint (See TND Tracking by Neighborhood Chart on LY-1)	≤ 50% Overall for the TND	+/- 43.63%	NO
8	MINIMUM SETBACK - FRONT - Single-Family Detached or Single-Family Attached (Townhouse)	5 ft.	5 ft.	NO
9	MAXIMUM SETBACK - FRONT - Single-Family Detached or Single-Family Attached (Townhouse)	25 ft.	25 ft.	NO
10	MINIMUM SETBACK - SIDE - Single-Family Detached	Total no less than 10 ft. - 5 ft. one side.	10 ft. / 5 ft.	NO
11	MINIMUM SETBACK - SIDE - Single-Family Attached (Townhouse)	0 ft. for interior units - Each end unit 8 ft. one side	0 ft. / 8 ft.	NO
12	MINIMUM SETBACK - REAR - Single-Family Detached or Single-Family Attached (Townhouse)	25 ft.	25 ft.	NO
13	MINIMUM SETBACK - REAR - Single-Family Detached or Single-Family Attached (Townhouse) (**served by rear-load alley)	**5 ft.	5 ft.	NO
14	WATER	Public	Public	NO
15	SANITARY SEWER	Public	Public	NO

Sheet Number:
02 of 40
Project Number:
15-100-34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

COVER SHEET – NOTES

Drafting: D TURNER
Checked by: –
Scale: AS NOTED
Project Manager: DAVID B. KEGERIZE PE
Project Engineer: G. MITCHELL KING PE, PLS
Project Surveyor: MATTHEW D. DENNIS PE, PLS

Seal:

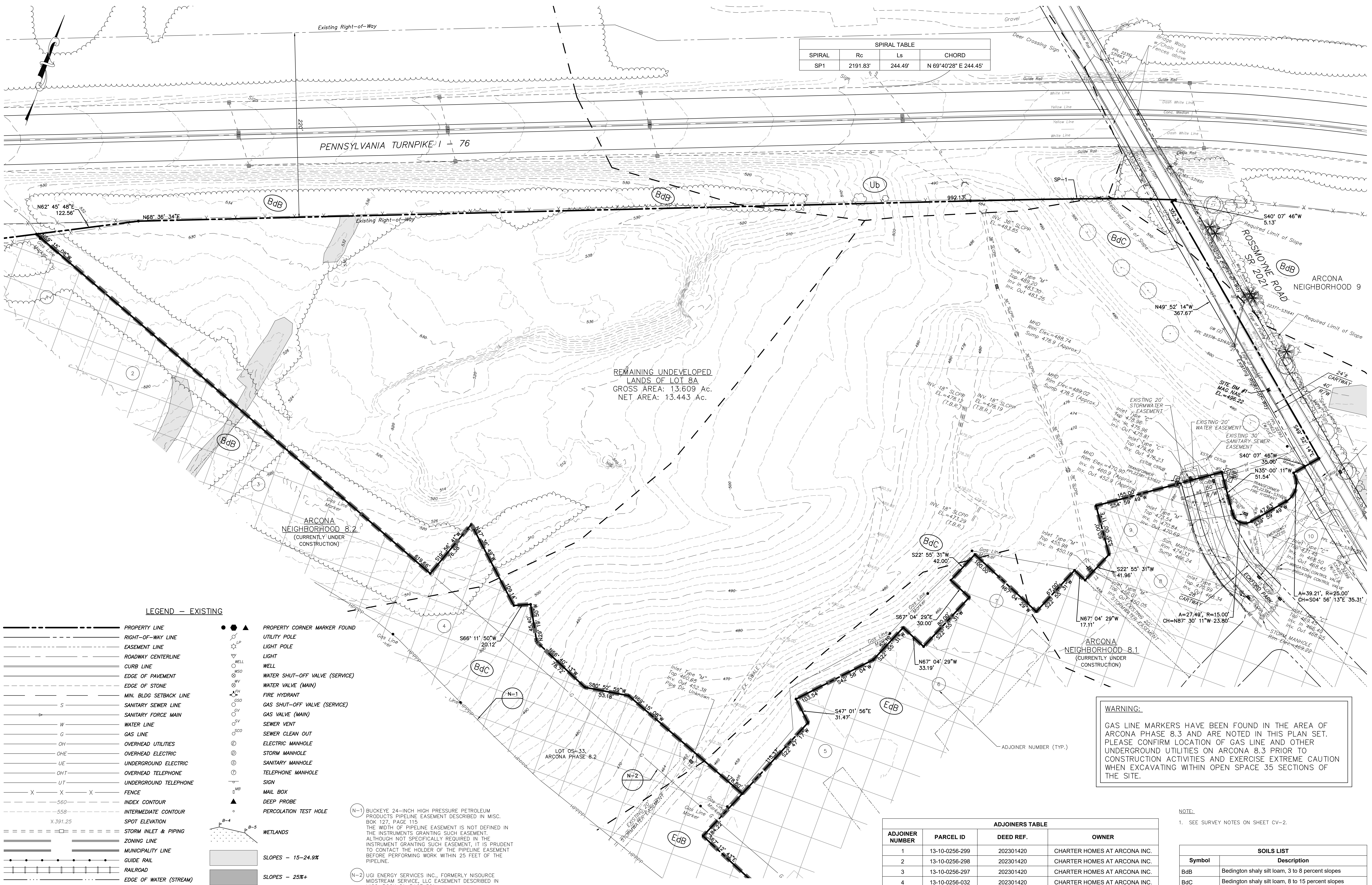
TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

1/21/2025 12:46 PM L:\15-100-34\SHEETS\PRELIMINARY\02 CV-02.DWG

Section Number:
CV-2

PRELIMINARY / FINAL


Existing Right-of-Way
PENNSYLVANIA TURNPIKE I – 76
220'
Gravel
Deer Crossing Sign
Bridge Walls w/Chain Link Fences above
Guide Rail
White Line
Yellow Line
Conc. Median
Dash White Line
Ub
BdB
BdC
EdB
SP-1
992.13'
N62° 45' 48"E 122.56'
N68° 36' 34"E
N69° 15' 08"W
352.39'
S40° 07' 46"W 5.13'
Required Limit of Slope
ROSSMOYNE ROAD SR 2021
ARCONA NEIGHBORHOOD 9
N49° 52' 14"W 367.67'
SITE BM #1 MAG NAIL EL=496.22
24'± CARTWAY
40' R/W
REMAINING UNDEVELOPED LANDS OF LOT 8A
GROSS AREA: 13.609 Ac.
NET AREA: 13.443 Ac.
EXISTING 20' STORMWATER EASEMENT
EXISTING 20' WATER EASEMENT
EXISTING 30' SANITARY SEWER EASEMENT
S40° 07' 46"W 35.00'
N35° 00' 11"W 51.54'
155.00'
S54° 59' 49"W
47.63'
S35° 59' 49"W
ARCONA NEIGHBORHOOD 8.2 (CURRENTLY UNDER CONSTRUCTION)
619.66'
S19° 56' 41"W 76.58'
N67° 35' 49"W
109.14'
S66° 11' 50"W 20.12'
N29° 19' 50"W 45.40'
N66° 40' 13"W 78.72'
S80° 52' 59"W 53.18'
N69° 15' 08"W
178.80'
184.22'
S67° 12' 43"E
115.37'
S22° 47' 17"W
S47° 01' 56"E 31.47'
103.54'
S42° 58' 04"W
S67° 04' 29"E 30.00'
N67° 04' 29"W 33.19'
S22° 55' 31"W
S22° 55' 31"W 42.00'
100.00'
N67° 04' 29"W
S22° 55' 31"W 67.00'
N67° 04' 29"W 17.11'
S22° 55' 31"W 41.96'
S11° 00' 11"E
ARCONA NEIGHBORHOOD 8.1 (CURRENTLY UNDER CONSTRUCTION)
A=27.49', R=15.00' CH=N87° 30' 11"W 23.80'
A=39.21', R=25.00' CH=S04° 56' 13"E 35.31'
ECKFORD PARK
LOT OS-33, ARCONA PHASE 8.2
N-1
N-2
EXISTING 20' STORMWATER EASEMENT
Gas Line Marker
EX. SWALE
ADJOINER NUMBER (TYP.)
1 2 3 4 5 6 7 8 9 10

SPIRAL TABLE			
SPIRAL	Rc	Ls	CHORD
SP1	2191.83'	244.49'	N 69°40'28" E 244.45'

LEGEND – EXISTING

PROPERTY LINE
RIGHT-OF-WAY LINE
EASEMENT LINE
ROADWAY CENTERLINE
CURB LINE
EDGE OF PAVEMENT
EDGE OF STONE
MIN. BLDG SETBACK LINE
SANITARY SEWER LINE
SANITARY FORCE MAIN
WATER LINE
GAS LINE
OVERHEAD UTILITIES
OVERHEAD ELECTRIC
UNDERGROUND ELECTRIC
OVERHEAD TELEPHONE
UNDERGROUND TELEPHONE
FENCE
INDEX CONTOUR
INTERMEDIATE CONTOUR
SPOT ELEVATION
STORM INLET & PIPING
ZONING LINE
MUNICIPALITY LINE
GUIDE RAIL
RAILROAD
EDGE OF WATER (STREAM)
SOILS LINE
TREELINE
DECIDUOUS TREE
CONIFEROUS TREE

● ⬢ ▲ PROPERTY CORNER MARKER FOUND
UTILITY POLE
LIGHT POLE
LIGHT
WELL
WATER SHUT-OFF VALVE (SERVICE)
WATER VALVE (MAIN)
FIRE HYDRANT
GAS SHUT-OFF VALVE (SERVICE)
GAS VALVE (MAIN)
SEWER VENT
SEWER CLEAN OUT
ELECTRIC MANHOLE
STORM MANHOLE
SANITARY MANHOLE
TELEPHONE MANHOLE
SIGN
MAIL BOX
▲ DEEP PROBE
PERCOLATION TEST HOLE
WETLANDS
SLOPES – 15–24.9%
SLOPES – 25%+

(N–1) BUCKEYE 24–INCH HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE EASEMENT DESCRIBED IN MISC. BOK 127, PAGE 115
THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENTS GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

(N–2) UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICE, LLC EASEMENT DESCRIBED IN MISC. BOOK 81, PAGE 561
THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENT GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

NOTE:

THIS SHEET REFLECTS CONDITIONS AT THE TIME OF RECORDATION OF PRELIMINARY / FINAL SUBDIVISION & LAND DEVELOPMENT PLAN, ARCONA NEIGHBORHOOD 8.3 AS SHOWN ON SHEET EX–1, LAST REVISED OCTOBER 22, 2024 IN INSTRUMENT #202421380 DATED OCTOBER 29, 2024. CHARTER HOMES AT ARCONA, INC. HAS PURCHASED LOT 8A AFTER RECORDING OF THE SUBDIVISION PLAN AS NOTED ON CV–1.

WARNING:

GAS LINE MARKERS HAVE BEEN FOUND IN THE AREA OF ARCONA PHASE 8.3 AND ARE NOTED IN THIS PLAN SET. PLEASE CONFIRM LOCATION OF GAS LINE AND OTHER UNDERGROUND UTILITIES ON ARCONA 8.3 PRIOR TO CONSTRUCTION ACTIVITIES AND EXERCISE EXTREME CAUTION WHEN EXCAVATING WITHIN OPEN SPACE 35 SECTIONS OF THE SITE.

ADJOINERS TABLE			
ADJOINER NUMBER	PARCEL ID	DEED REF.	OWNER
1	13-10-0256-299	202301420	CHARTER HOMES AT ARCONA INC.
2	13-10-0256-298	202301420	CHARTER HOMES AT ARCONA INC.
3	13-10-0256-297	202301420	CHARTER HOMES AT ARCONA INC.
4	13-10-0256-032	202301420	CHARTER HOMES AT ARCONA INC.
5	13-10-0256-273	202035221	CHARTER HOMES AT ARCONA INC.
6	13-10-0256-262	202211051	YEON M. CHOI
7	13-10-0256-263	202145529	ELIZABETH K. LYDECKER
8	13-10-0256-249	202137686	BENJAMIN HAROLD OBERHOLZTER
9	13-10-0256-250	202138093	GAGANDEEP & AMANDEEP BIRDI
10	13-10-0256-268	202035221	CHARTER HOMES AT ARCONA INC.

NOTE:

1. SEE SURVEY NOTES ON SHEET CV–2.

SOILS LIST	
Symbol	Description
BdB	Bedington shaly silt loam, 3 to 8 percent slopes
BdC	Bedington shaly silt loam, 8 to 15 percent slopes
BdD	Bedington shaly silt loam, 15 to 25 percent slopes
EdB	Edom silty clay loam, 3 to 8 percent slopes
DuA	Duffield silt loam, 0 to 3 percent slopes
DuB	Duffield silt loam, 3 to 8 percent slopes
Pe	Penlaw silt loam
Ub	Urban land and Udorthents

Sheet Number: 03 of 40
Project Number: 15–100–34
Date: APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3
Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

EXISTING CONDITIONS

Project Manager: DAVID B. KEGERIZE PE
Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS
Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS
Scale: 1"=50'
0 25 50 100 150

Seal:
THOMAS KILBORNE PHILLIPS
No.55399-E

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number: EX–1

1/22/2025 3:20 PM L:\15–100–34\SHEETS\PRELIMINARY\03 EX–01.DWG

PRELIMINARY / FINAL

LOT LINE TABLE		
LINE	LENGTH	DIRECTION
L2	5.13'	N 40°07'46" E
L3	352.39'	N 49°52'14" W

SPIRAL TABLE			
SPIRAL	Rc	Ls	CHORD
SP1	2191.83'	244.49'	N 69°40'28" E 244.45'

EQUITABLE OWNER / DEVELOPER (ARCONA NEIGHBORHOOD 8.3):
Charter Homes Development Company
322 North Arch Street
Lancaster, PA 17603

OWNER / DEVELOPER (ARCONA NEIGHBORHOOD 8.2):
Charter Homes at Arcona Inc.
322 North Arch Street
Lancaster, PA 17603

SOURCE OF TITLE:
Tax Map 13–10–0256–032
Inst. No.: 202301420

OWNER (ARCONA NEIGHBORHOOD 8, LOT 8A)
Ruth D. Lesher
1340 Rossmoyne Road
Mechanicsburg, PA 17055

SOURCE OF TITLE:
Tax Map 13–10–0256–226
Inst. No.: 201729508 (1/2 interest)

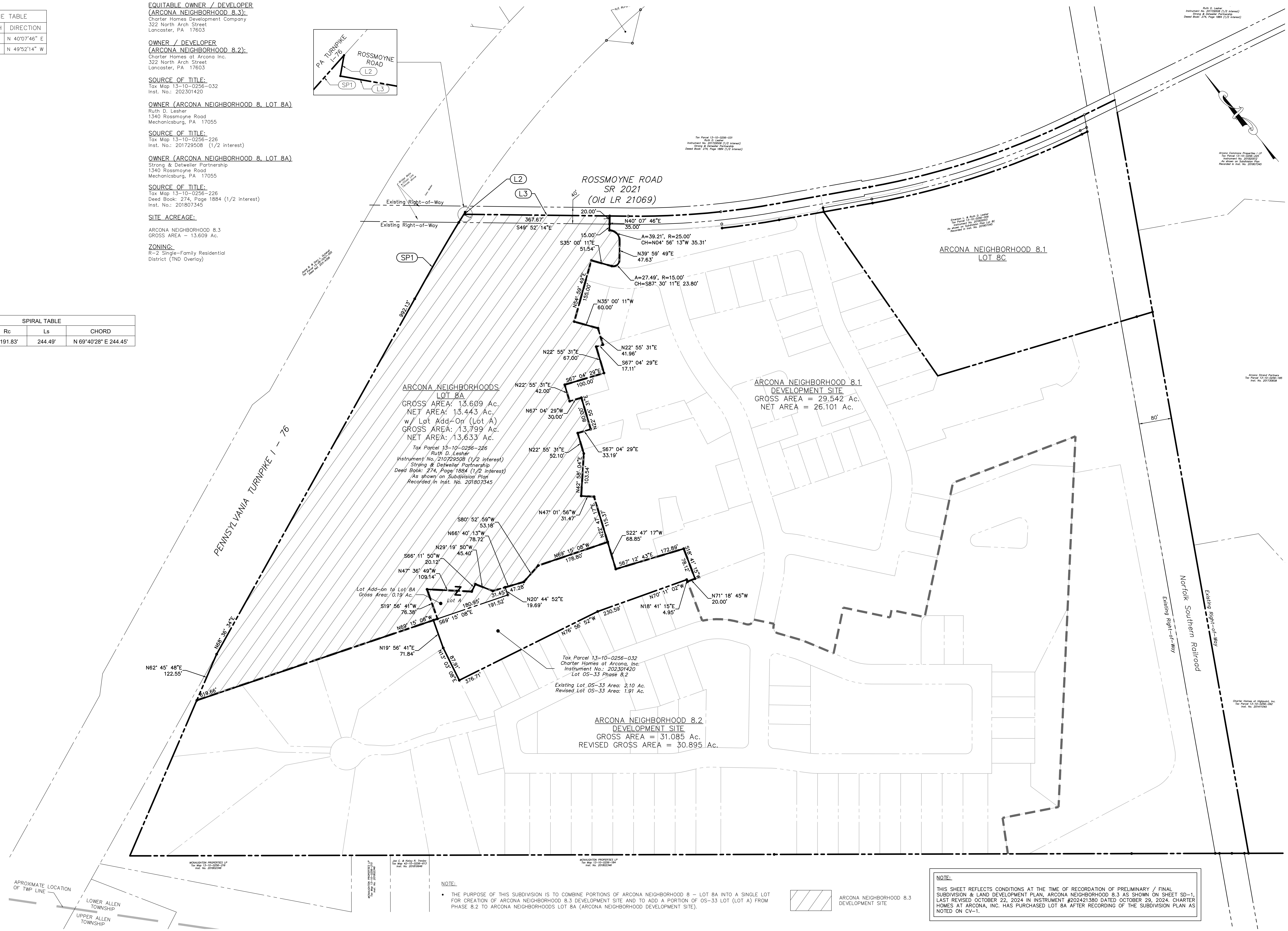
OWNER (ARCONA NEIGHBORHOOD 8, LOT 8A)
Strong & Detweiler Partnership
1340 Rossmoyne Road
Mechanicsburg, PA 17055

SOURCE OF TITLE:
Tax Map 13–10–0256–226
Deed Book: 274, Page 1884 (1/2 interest)
Inst. No.: 201807345

SITE ACREAGE:

ARCONA NEIGHBORHOOD 8.3
GROSS AREA – 13.609 Ac.

ZONING:
R–2 Single–Family Residential
District (TND Overlay)



PA TURNPIKE I–76
ROSSMOYNE ROAD
L2
L3
SP1
ROSSMOYNE ROAD
SR 2021
(Old LR 21069)
40'
Existing Right–of–Way
Existing Right–of–Way
Bridge Walls w/Chain Link Fences above
Conc. Median
Joyce B. & Gary L. Gutshall
Tax Parcel 13–26–0247–055
Deed Ref. 253–4358
367.67'
S49° 52' 14"E
20.00'
N40° 07' 46"E
35.00'
15.00'
A=39.21', R=25.00'
CH=N04° 56' 13"W 35.31'
S35° 00' 11"E
51.54'
N39° 59' 49"E
47.63'
A=27.49', R=15.00'
CH=S87° 30' 11"E 23.80'
N54° 59' 49"E
155.00'
N35° 00' 11"W
60.00'
N22° 55' 31"E
41.96'
N22° 55' 31"E
67.00'
S67° 04' 29"E
17.11'
S67° 04' 29"E
100.00'
N22° 55' 31"E
42.00'
N67° 04' 29"W
30.00'
N22° 55' 31"E
80.00'
N22° 55' 31"E
52.10'
S67° 04' 29"E
33.19'
N42° 58' 04"E
103.54'
N47° 01' 56"W
31.47'
N22° 47' 17"E
115.37'
S22° 47' 17"W
68.85'
S67° 12' 43"E
172.89'
S18° 41' 15"W
78.12'
N71° 18' 45"W
20.00'
N18° 41' 15"E
4.95'
N70° 11' 02"W
N76° 56' 52"W
230.59'
N69° 15' 08"W
178.80'
S80° 52' 59"W
53.18'
N66° 40' 13"W
78.72'
N29° 19' 50"W
45.40'
S66° 11' 50"W
20.12'
N47° 36' 49"W
109.14'
31.45'
47.28'
N20° 44' 52"E
19.69'
180.95'
191.52'
S69° 15' 08"E
N69° 15' 08"W
Lot Add–on to Lot 8A
Gross Area: 0.19 Ac.
Lot A
S19° 56' 41"W
76.38'
N19° 56' 41"E
71.84'
N13° 03' 08"E
87.91'
376.71'
992.13'
N68° 36' 34"E
N62° 45' 48"E
122.55'
519.66'
PENNSYLVANIA TURNPIKE I – 76
ARCONA NEIGHBORHOODS
LOT 8A
GROSS AREA: 13.609 Ac.
NET AREA: 13.443 Ac.
w/ Lot Add–On (Lot A)
GROSS AREA: 13.799 Ac.
NET AREA: 13.633 Ac.
Tax Parcel 13–10–0256–226
Ruth D. Lesher
Instrument No. 210729508 (1/2 interest)
Strong & Detweiler Partnership
Deed Book: 274, Page 1884 (1/2 interest)
As shown on Subdivision Plan
Recorded in Inst. No. 201807345
Tax Parcel 13–10–0256–032
Charter Homes at Arcona, Inc.
Instrument No.: 202301420
Lot OS–33 Phase 8.2
Existing Lot OS–33 Area: 2.10 Ac.
Revised Lot OS–33 Area: 1.91 Ac.
ARCONA NEIGHBORHOOD 8.2
DEVELOPMENT SITE
GROSS AREA = 31.085 Ac.
REVISED GROSS AREA = 30.895 Ac.
ARCONA NEIGHBORHOOD 8.1
DEVELOPMENT SITE
GROSS AREA = 29.542 Ac.
NET AREA = 26.101 Ac.
ARCONA NEIGHBORHOOD 8.1
LOT 8C
Emerson L. & Ruth D. Lesher
Tax Parcel 13–10–0256–009
Instrument No. 201905003
As shown on Subdivision Plan Lot 8C
Recorded in Inst. No. 201807345
Tax Parcel 13–10–0256–031
Ruth D. Lesher
Instrument No. 201729508 (1/2 interest)
Strong & Detweiler Partnership
Deeed Book: 274, Page 1884 (1/2 interest)
Ruth D. Lesher
Instrument No. 201729508 (1/2 interest)
Strong & Detweiler Partnership
Deeed Book: 274, Page 1884 (1/2 interest)
Arcona Commons Properties I LP
Tax Parcel 13–10–0256–225
Instrument No. 201920512
As shown on Subdivision Plan
Recorded in Inst. No. 201807345
Norfolk Southern Railroad
Existing Right–of–Way
Existing Right–of–Way
80'
MCNAUGHTON PROPERTIES LP
Tax Map 13–10–0256–184
Inst. No. 201802346
Joe C. & Ketzy R. Trevizo
Inst. No. 201819946
APROXIMATE LOCATION OF TWP LINE
LOWER ALLEN TOWNSHIP
UPPER ALLEN TOWNSHIP

NOTE:

- THE PURPOSE OF THIS SUBDIVISION IS TO COMBINE PORTIONS OF ARCONA NEIGHBORHOOD 8 – LOT 8A INTO A SINGLE LOT FOR CREATION OF ARCONA NEIGHBORHOOD 8.3 DEVELOPMENT SITE AND TO ADD A PORTION OF OS–33 LOT (LOT A) FROM PHASE 8.2 TO ARCONA NEIGHBORHOODS LOT 8A (ARCONA NEIGHBORHOOD DEVELOPMENT SITE).

▨ ARCONA NEIGHBORHOOD 8.3 DEVELOPMENT SITE

NOTE:

THIS SHEET REFLECTS CONDITIONS AT THE TIME OF RECORDATION OF PRELIMINARY / FINAL SUBDIVISION & LAND DEVELOPMENT PLAN, ARCONA NEIGHBORHOOD 8.3 AS SHOWN ON SHEET SD–1, LAST REVISED OCTOBER 22, 2024 IN INSTRUMENT #202421380 DATED OCTOBER 29, 2024. CHARTER HOMES AT ARCONA, INC. HAS PURCHASED LOT 8A AFTER RECORDING OF THE SUBDIVISION PLAN AS NOTED ON CV–1.

Sheet Number:
04 of 40
Project Number:
15–100–34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

SUBDIVISION PLAN

Drafting: D TURNER
Checked by: –
Scale: 1"=100'
0 50 100 200 300
Project Manager: DAVID B. KEGERIZE PE
Project Engineer: G. MITCHELL KING PE, PLS
Project Surveyor: G. MITCHELL KING PE, PLS

Seal:
G. MITCHELL KING
No. SU042004-E
1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
SD–1

1/22/2025 3:20 PM L:\15–100–34\SHEETS\PRELIMINARY\04 SD–01.DWG

PRELIMINARY / FINAL

Development Site			Open Space							
Highpoint	**Development Site**	**% Total**	**Rec. Lands**	**Common OS**	**Total OS Area**	**% Total**	**Village**	**% Total**	**Residential**	**% Total**
Highpoint Phase 1.1	17.39 Ac. +/-	40%	0.00 Ac. +/-	5.69 Ac. +/-	5.69 Ac. +/-	13%	0.00 Ac. +/-	0%	11.70 Ac. +/-	27%
Highpoint Phase 1.2	5.94 Ac. +/-	14%	0.00 Ac. +/-	0.71 Ac. +/-	0.71 Ac. +/-	2%	0.00 Ac. +/-	0%	5.23 Ac. +/-	12%
Highpoint Phase 1.3	4.94 Ac. +/-	11%	0.00 Ac. +/-	1.27 Ac. +/-	1.27 Ac. +/-	3%	0.00 Ac. +/-	0%	3.67 Ac. +/-	8%
Highpoint Phase 1.4	7.00 Ac. +/-	16%	0.00 Ac. +/-	1.05 Ac. +/-	1.05 Ac. +/-	2%	5.95 Ac. +/-	14%	0.00 Ac. +/-	0%
Highpoint Phase 1.5	8.06 Ac. +/-	19%	1.85 Ac. +/-	1.35 Ac. +/-	3.20 Ac. +/-	7%	0.00 Ac. +/-	0%	4.86 Ac. +/-	11%
Highpoint (rev.) sub-total =	43.33 Ac. +/-	100%	1.85 Ac. +/-	10.07 Ac. +/-	11.92 Ac. +/-	27.5%	5.95 Ac. +/-	13.7%	25.46 Ac. +/-	58.8%
Arcona Phase 2.1 & 2.2	**Development Site**	**% Total**	**Rec. Lands**	**Common OS**	**Total OS Area**	**% Total**	**Village**	**% Total**	**Residential**	**% Total**
Arcona Phase 2.1	6.49 Ac. +/-	38%	0.00 Ac. +/-	0.00 Ac. +/-	0.00 Ac. +/-	0%	0.00 Ac. +/-	0%	6.49 Ac. +/-	38%
Arcona Phase 2.2	10.49 Ac. +/-	62%	0.00 Ac. +/-	3.68 Ac. +/-	3.68 Ac. +/-	22%	0.00 Ac. +/-	0%	6.81 Ac. +/-	40%
Arcona Phase 2.1 & 2.2 sub-total =	16.98 Ac. +/-	100%	0.00 Ac. +/-	3.68 Ac. +/-	3.68 Ac. +/-	21.7%	0.00 Ac. +/-	0.0%	13.30 Ac. +/-	78.3%
Arcona Phase 2.3	**Development Site**	**% Total**	**Rec. Lands**	**Common OS**	**Total OS Area**	**% Total**	**Village**	**% Total**	**Residential**	**% Total**
Arcona Phase 2.3.1	10.49 Ac. +/-	79%	0.00 Ac. +/-	1.74 Ac. +/-	1.74 Ac. +/-	13%	8.75 Ac. +/-	66%	0.00 Ac. +/-	0%
Arcona Phase 2.3.2	2.22 Ac. +/-	17%	0.00 Ac. +/-	0.00 Ac. +/-	0.00 Ac. +/-	0%	2.22 Ac. +/-	17%	0.00 Ac. +/-	0%
Arcona Phase 2.3.3	0.62 Ac. +/-	5%	0.00 Ac. +/-	0.00 Ac. +/-	0.00 Ac. +/-	0%	0.62 Ac. +/-	5%	0.00 Ac. +/-	0%
Arcona Phase 2.3 (Rev.) sub-total =	13.33 Ac. +/-	100%	0.00 Ac. +/-	1.74 Ac. +/-	1.74 Ac. +/-	13.1%	11.59 Ac. +/-	86.9%	0.00 Ac. +/-	0.0%
Arcona Neighborhood 8	**Development Site**	**% Total**	**Rec. Lands**	**Common OS**	**Total OS Area**	**% Total**	**Village**	**% Total**	**Residential**	**% Total**
Arcona Phase 8.1 (Rev.)	29.54 Ac. +/-	40%	0.00 Ac. +/-	7.41 Ac. +/-	7.41 Ac. +/-	10%	0.00 Ac. +/-	0%	22.13 Ac. +/-	30%
Arcona Phase 8.2 (Rev.)	30.91 Ac. +/-	42%	0.00 Ac. +/-	2.71 Ac. +/-	2.71 Ac. +/-	4%	0.00 Ac. +/-	0%	28.20 Ac. +/-	38%
Arcona Phase 8.3	13.63 Ac. +/-	18%	0.00 Ac. +/-	2.64 Ac. +/-	2.64 Ac. +/-	4%	0.00 Ac. +/-	0%	10.99 Ac. +/-	15%
Arcona Neighborhood 8 sub-total=	74.08 Ac. +/-	100%	0.00 Ac. +/-	12.76 Ac. +/-	12.76 Ac. +/-	17.2%	0.00 Ac. +/-	0.0%	61.32 Ac. +/-	82.8%

ARCONA NEIGHBORHOOD 8.3 - PARKING SUMMARY (Residential)

PHASE	LOT / UNIT	UNIT TYPE	DESCRIPTION	# UNITS	REQUIRED	PROPOSED
8.3	800-840	RESIDENTIAL (SINGLE-FAMILY DETACHED)	2.0 PER UNIT	41 (Dwelling Units)	82	82 (Garages)
8.3	N/A	On-Street Parking (See Sheet LY-4)	N/A	N/A	0	64
8.3	T	RESIDENTIAL (SINGLE-FAMILY ATTACHED)	2.0 PER UNIT	15 (Dwelling Units)	30	30 (Garages)
8.3	T	Off-Street Parking (See Sheet LY-4)	N/A	N/A	0	2
8.3	U	RESIDENTIAL (SINGLE-FAMILY ATTACHED)	2.0 PER UNIT	12 (Dwelling Units)	24	24 (Garages)
8.3	U	Off-Street Parking (See Sheet LY-4)	N/A	N/A	0	3
8.3	V	RESIDENTIAL (SINGLE-FAMILY ATTACHED)	2.0 PER UNIT	6 (Dwelling Units)	12	12 (Garages)
8.3	W	RESIDENTIAL (SINGLE-FAMILY ATTACHED)	2.0 PER UNIT	19 (Dwelling Units)	38	38 (Garages)
Total				**93 (Dwelling Units)**	**186**	**255**

TND TRACKING BY NEIGHBORHOOD

Description	Highpoint (rev.)	Strong Road	Arcona Ph. 2.1 & 2.2 (Rev.)	Arcona Ph. 2.3 (Rev.)	Arcona Ph. 8.1 (Rev.)	Arcona Ph. 8.2 (Rev.)	Arcona Ph. 8.3	TND Totals to Date
Walking Trails	7,385 L.F. +/-	0 L.F. +/-	2,865 L.F. +/-	2,295 L.F. +/-	1,930 L.F. +/-	1,087 L.F. +/-	1,157 L.F. +/-	16,719 L.F. +/-
Site Acreage	40.1 Ac. +/-	2.6 Ac. +/-	17.0 Ac. +/-	13.3 Ac. +/-	29.7 Ac. +/-	* 30.9 Ac. +/-	13.6 Ac. +/-	147.3 Ac. +/-
Common OS	11.9 Ac. +/-	0.0 Ac. +/-	3.7 Ac. +/-	1.7 Ac. +/-	7.4 Ac. +/-	* 2.7 Ac. +/-	2.6 Ac. +/-	30.1 Ac. +/-
# Residential Units	183 (171)	0	282	107	133 (131)	144	93	942 (928)
Unit Density	4.27	0.00	16.61	8.03	4.41	* 4.66	6.82	6.30
** Length of Street (Sub-Total)	6,823 L.F. +/-	2,158 L.F. +/-	0 L.F. +/-	3,614 L.F. +/-	6,388 L.F. +/-	6,308 L.F. +/-	4,100 L.F. +/-	29,391 L.F. +/-
Length of Cul-de-sac (Sub-Total)	0 L.F. +/-	0 L.F. +/-	0 L.F. +/-	0 L.F. +/-	0 L.F. +/-	400 L.F. +/-	0 L.F. +/-	400 L.F. +/-
Percentage of Total	0.00%	0.00%	0.00%	0.00%	0.00%	6.34%	0.00%	1.36%
Impervious Area	16.10 Ac. +/-	1.68 Ac. +/-	8.85 Ac. +/-	7.84 Ac. +/-	9.94 Ac. +/-	12.78 Ac. +/-	7.07 Ac. +/-	64.3 Ac. +/-
Impervious Percentage	40.17%	64.34%	52.12%	58.84%	33.43%	41.33%	51.87%	43.63%

* Arcona Phase 8.2 numbers have changed per SD-1, Lot A - Lot Add-On, **Includes public and private streets & alleys.

TND NOTES:

1. Unit density is based on current neighborhood development site acreage.
2. Additional neighborhoods will be added to the chart as they are developed.
3. Arcona Phase 8.3 proposes adding a total of 93 dwelling units on 13.6 acres, which equates to a cumulative density of 6.30 dwelling units per acre for Highpoint, Arcona Phase 2.1 & 2.2, Arcona Phase 2.3, Arcona Phase 8.1, 8.2, and 8.3. Pursuant to Sections 220–126.A and B of the Zoning Ordinance and Section 192–68.E of the SALDO, this density is permitted because (i) cumulatively for such phases, 30.1 acres of common open space is proposed to be provided, which exceeds 150% of the amount of common open space that is required under Section 220–131 of the Zoning Ordinance, and (ii) recreation fees are to be paid based upon approved cumulative density as provided in General Design Note 19 (See Sheet CV–2).

TND SLOPE CALCULATIONS

Phase	15-24.9% SLOPES (MAX 30% Disturbance)			25%+ SLOPES (MAX 15% Disturbance)		
	Total Area TND	**Disturbed Area**	**Est. % Disturbed**	**Total Area TND**	**Disturbed Area**	**Est. % Disturbed**
Highpoint (Rev.)	**19.21 Ac.**	0.00 Ac.	**0.0%**	**7.36 Ac.**	0.00 Ac.	**0.0%**
Arcona 2.1 & 2.2 (Rev.)		0.00 Ac.	**0.0%**		0.00 Ac.	**0.0%**
Arcona 2.3		0.00 Ac.	**0.0%**		0.00 Ac.	**0.0%**
Arcona 8.1		0.00 Ac.	**0.0%**		0.00 Ac.	**0.0%**
Arcona 8.2		0.69 Ac.	**3.6%**		0.09 Ac.	**1.2%**
Arcona 8.3		0.09 Ac.	**0.5%**		0.00 Ac.	**0.0%**
Arcona 9		2.10 Ac.	**10.9%**		0.07 Ac.	**1.0%**
Totals To Date		2.88 Ac.	**15.0%**		0.16 Ac.	**2.2%**

Total area of slopes is inclusive of the entire TND Site, including existing and future phases.

Slopes are derived from pre-develoment topo and are based on natural slopes per Zoning Section 220-204.

RECREATION FACILITIES COMPLETION SCHEDULE (TRAILS):

1. TRAILS IN OS – INSTALLED NO LATER THAN WITHIN 6 MONTHS OF ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY IS ISSUED FOR PHASE 8.3.
2. THE GENERAL LOCATION OF WALKING TRAILS ARE DEPICTED ON THIS PLAN. THE FINAL DESIGN AND LOCATION OF SUCH WALKING TRAILS WILL BE DETERMINED IN THE FIELD DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION, EASEMENTS FOR SUCH WALKING TRAILS SHALL BE ESTABLISHED ON AND OVER THE IMPROVED AREAS OF SUCH WALKING TRAILS THROUGH AN AMENDMENT TO THE DECLARATION OF CONSERVATION EASEMENT FOR ARCONA, DATED OCTOBER 6, 2014, AND RECORDED AS INSTRUMENT NO. 201422826 ("DECLARATION"). SUCH AMENDMENT SHALL INCORPORATE SUCH WALKING TRAILS AS TND TRAILS AND PUBLIC OPEN SPACE WITHIN THE MEANING OF SUCH DECLARATION AND SUBJECT TO THE TERMS OF THE DECLARATION.

OPEN SPACE TRAIL LENGTH FOR RECREATION CREDIT

Description	Est. L.F. of Trail
6' Paved Trail - Thru "Arcona Phase 8.3" Open Space 35 and "Arcona Phase 8.2" Open Space 33	524 L.F.

TRAILS IN-LIEU OF SIDEWALK

Description	Est. L.F. of Trail
8' Paved Trail - Thru "Arcona Phase 8.3" Open Space 34	521 L.F.

Arcona Neighborhood 8.3 - Dwelling Types

Dwelling Type	Unit #'s	# of Dwellings
Single-Family Detached	800-840	41
Single-Family Attached - Town Homes	841-892	52
Total Residential Units =		**93**

Depth to Width Percentage of Dwelling Units - Arcona Neighhborhood 8.3

# of Residential Lots	# Wider than Deep	> 90% Deeper
27	26	**96.3%**

STREET LENGTH SUMMARY

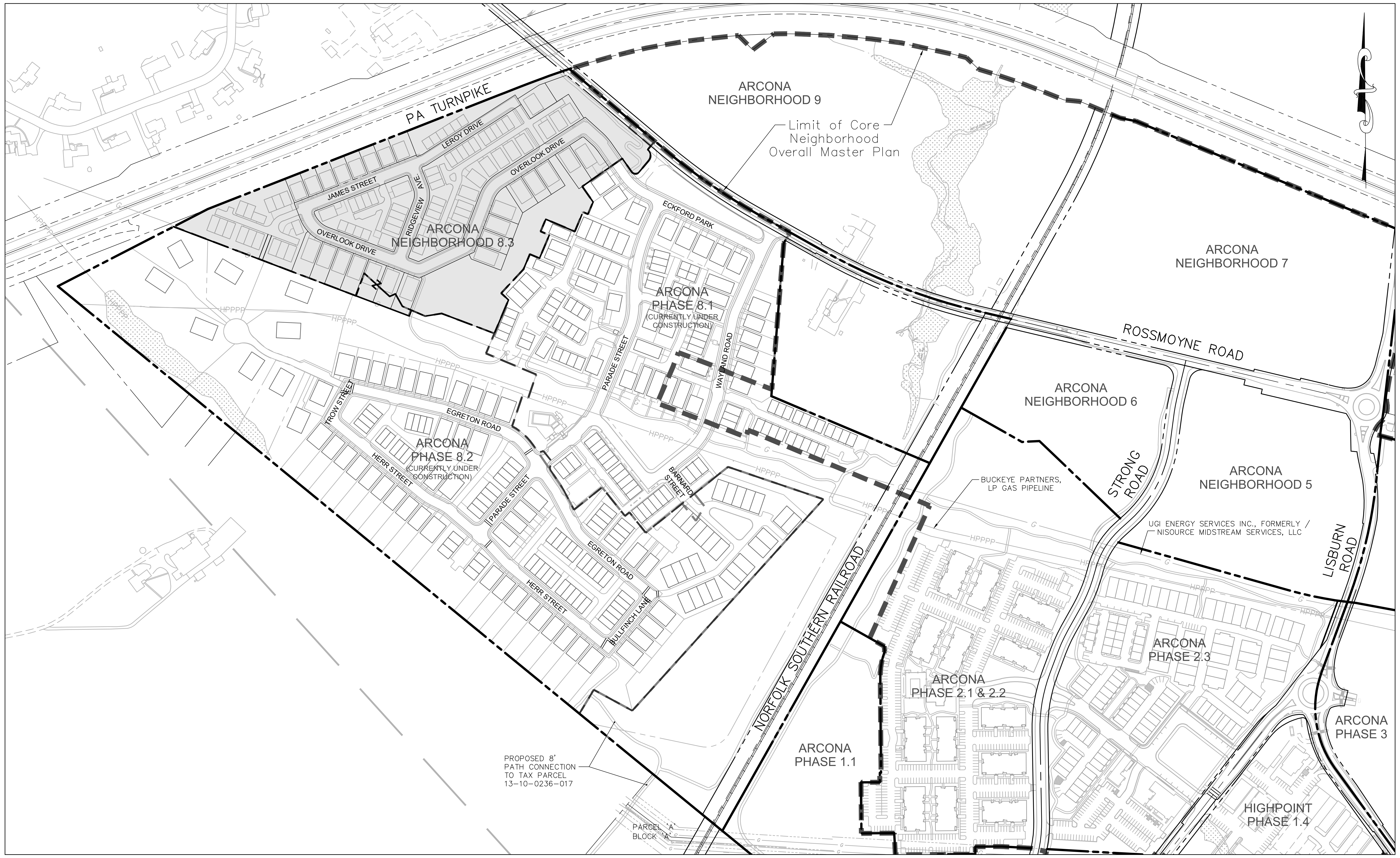
Streets, Drives & Boulevards	L.F. of Pavement
Streets (Private)	2,406 L.F.
Alleys (Private)	1,694 L.F.
Total =	4,100 L.F.

OPEN SPACE / COMMON AREAS			Meets Common Open Space Req's.
Description	**Area (s.f.)**	**Area (Acres)**	
*OS-33 - Rev.	83,251 s.f.	1.91 Ac.	Yes
OS-34	28,232 s.f.	0.65 Ac.	Yes
OS-35	86,658 s.f.	1.99 Ac.	Yes
Total 8.3	**114,890 s.f.**	2.64 Ac.	

* Open Space OS-33 changes have been updated on the TND Tracking by Neighborhood chart above. OS-33 is a part of Phase 8.2.

LEGEND – PROPOSED

PROPERTY LINE	
RIGHT–OF–WAY LINE	
EASEMENT LINE	
ROADWAY CENTERLINE	
CURB LINE	
EDGE OF PAVEMENT	
EDGE OF STONE	
MIN. BLDG SETBACK LINE	
SANITARY SEWER LINE	
SANITARY FORCE MAIN	
WATER LINE	W
GAS LINE	G
OVERHEAD UTILITIES	OH
OVERHEAD ELECTRIC	OHE
UNDERGROUND ELECTRIC	UE
OVERHEAD TELEPHONE	OHT
UNDERGROUND TELEPHONE	UT
FENCE	X X X X
INDEX CONTOUR	560
INTERMEDIATE CONTOUR	558
SPOT ELEVATION	× 392.15
STORM INLET & PIPING	
GUIDE RAIL	
TREELINE	
DECIDUOUS TREE	
CONIFEROUS TREE	
CONC. MONUMENT SET	⊙
PIN	◎
ANGLE BREAK, PC/PT	○
EASEMENT CORNER	○
UTILITY POLE	
LIGHT POLE	LP
LIGHT	
WELL	● WELL
WATER SHUT–OFF VALVE (SERVICE)	● WSO
WATER VALVE (MAIN)	● WV
FIRE HYDRANT	FH
GAS SHUT–OFF VALVE (SERVICE)	● GSO
GAS VALVE (MAIN)	● GV
SEWER VENT	● SV
SEWER CLEAN OUT	● CO
ELECTRIC MANHOLE	●
STORM MANHOLE	●
SANITARY MANHOLE	●
TELEPHONE MANHOLE	●
SIGN	



NOTES:

1. SEE EA–1 FOR ALL PROPOSED EASEMENTS AND EXISTING EASEMENTS TO BE EXTINGUISHED.
2. PROPOSED CURB SHOWN ON THIS PLAN IS TO BE BELGIAN BLOCK.
3. ALL PRIVATE DRIVES ARE TO BE CONSIDERED PUBLIC EASEMENTS FOR PUBLIC ACCESS AND ALL UTILITIES.
4. USPS CLUSTER MAILBOX FOR EACH DWELLING UNIT IN ARCONA PHASE 8.3 TO BE LOCATED AT PHASE 8.1 AND 8.2 CLUSTER MAILBOX LOCATION ADJACENT TO THE ARCONA SWIM CLUB OFF PARADE STREET..
5. EACH DWELLING UNIT WILL HAVE INDIVIDUAL REFUSE PICKUP. ALL RESIDENTIAL UNIT OWNERS ARE REQUIRED TO PLACE REFUSE AT A COLLECTION POINT ACCESSIBLE FOR TRUCK PICKUP, AS DIRECTED BY THE NEIGHBORHOOD ASSOCIATION DOCUMENTS. HOMEOWNERS WILL BE REQUIRED TO BRING REFUSE TO END OF DRIVES.
6. SEE SHEET LY–2 FOR STREET ADDRESSES PENDING APPROVAL.
7. SEE SHEET LY–3 FOR LOT AREAS, BEARINGS AND DISTANCES.
8. NEIGHBORHOOD ASSOCIATION TO MAINTAIN AND KEEP CLEAR ALL SNOW EASEMENTS AND THE 15' WIDE EMERGENCY ACCESS DRIVE. THE EMERGENCY ACCESS DRIVE MUST BE PLOWED / CLEARED WITHIN 24 HOURS AFTER EACH SNOWFALL (SEE SHEET PF–7).

Sheet Number:
05 of 40
Project Number:
15–100–34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

ARCONA TND OVERVIEW

Drafting: D TURNER
Checked by: –
Scale: 1"=200'
0 100 200 400 600
Project Manager: DAVID B. KEGERIZE PE
Project Engineer: G. MITCHELL KING PE, PLS
Project Surveyor: MATTHEW D. DENNIS PE, PLS
Seal: G. MITCHELL KING No. SU42004-E 1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
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Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
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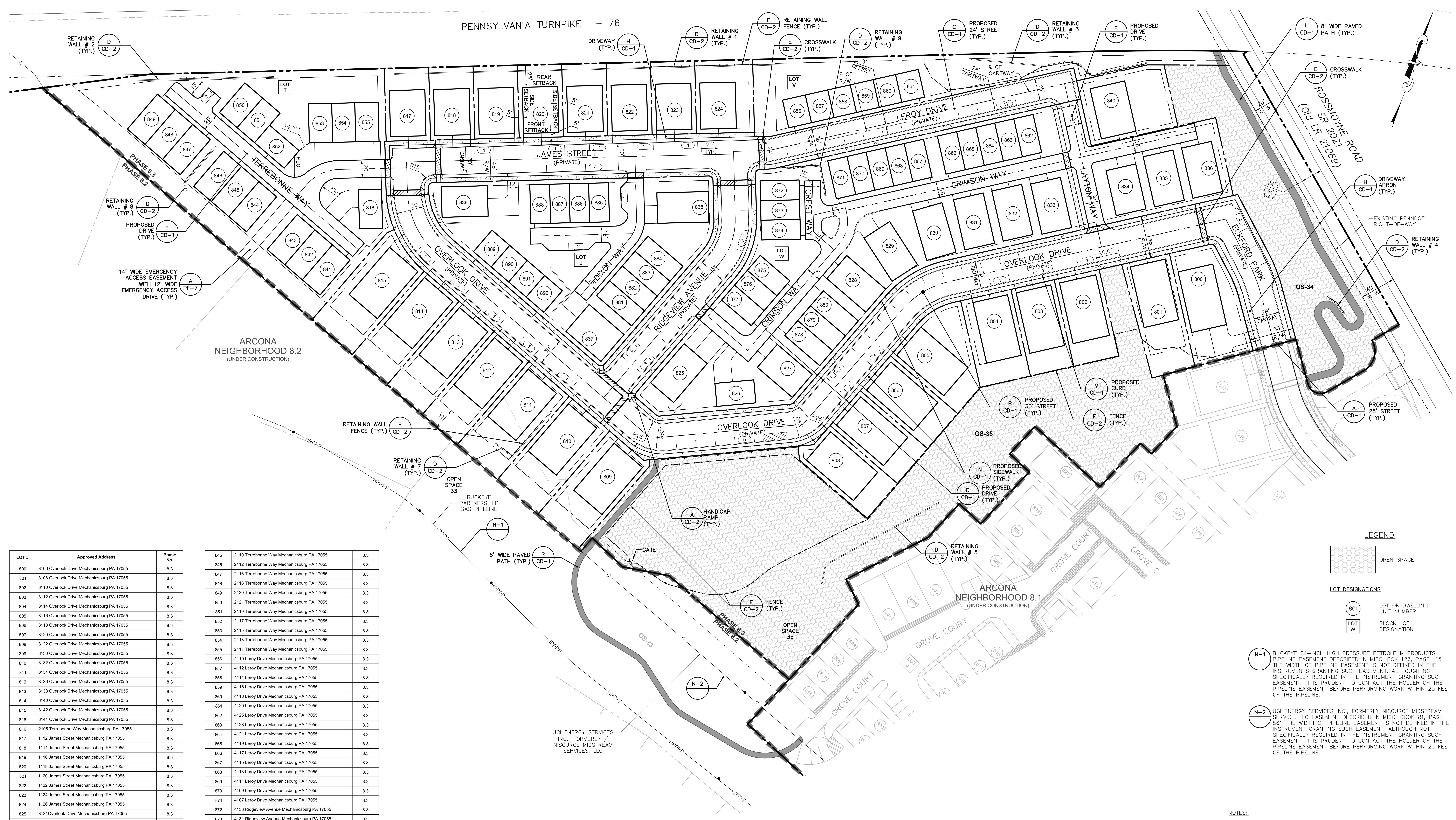
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
LY–1

1/22/2025 4:16 PM L:\15–100–34\SHEETS\PRELIMINARY\05 LY–01.DWG

PRELIMINARY / FINAL


PENNSYLVANIA TURNPIKE I – 76
RETAINING WALL # 2 (TYP.) D CD–2
DRIVEWAY (TYP.) H CD–1
RETAINING WALL # 1 (TYP.) D CD–2
RETAINING WALL FENCE (TYP.) F CD–2
CROSSWALK (TYP.) E CD–2
RETAINING WALL # 9 (TYP.) D CD–2
PROPOSED 24' STREET (TYP.) C CD–1
RETAINING WALL # 3 (TYP.) D CD–2
PROPOSED DRIVE (TYP.) E CD–1
8' WIDE PAVED PATH (TYP.) L CD–1
CROSSWALK (TYP.) E CD–2
ROSSMOYNE ROAD SR 2021 (Old LR 21069)
LOT T
LOT V
LOT U
LOT W
REAR SETBACK
SIDE SETBACK
FRONT SETBACK
JAMES STREET (PRIVATE)
LEROY DRIVE (PRIVATE)
CRIMSON WAY
LAYTON WAY
TERREBONNE WAY
OVERLOOK DRIVE (PRIVATE)
DIXON WAY
RIDGEVIEW AVENUE (PRIVATE)
CREST WAY
CRIMSON WAY
ECKFORD PARK (PRIVATE)
RETAINING WALL # 8 (TYP.) D CD–2
PROPOSED DRIVE (TYP.) F CD–1
14' WIDE EMERGENCY ACCESS EASEMENT WITH 12' WIDE EMERGENCY ACCESS DRIVE (TYP.) A PF–7
PHASE 8.3
PHASE 8.2
ARCONA NEIGHBORHOOD 8.2 (UNDER CONSTRUCTION)
DRIVEWAY APRON (TYP.) H CD–1
EXISTING PENNDOT RIGHT–OF–WAY
RETAINING WALL # 4 (TYP.) D CD–2
OS–34
PROPOSED 28' STREET (TYP.) A CD–1
PROPOSED CURB (TYP.) M CD–1
PROPOSED 30' STREET (TYP.) B CD–1
FENCE (TYP.) F CD–2
OS–35
RETAINING WALL FENCE (TYP.) F CD–2
RETAINING WALL # 7 (TYP.) D CD–2
OPEN SPACE 33
BUCKEYE PARTNERS, LP GAS PIPELINE
N–1
HANDICAP RAMP (TYP.) A CD–2
PROPOSED SIDEWALK (TYP.) N CD–1
PROPOSED DRIVE (TYP.) D CD–1
RETAINING WALL # 5 (TYP.) D CD–2
6' WIDE PAVED PATH (TYP.) R CD–1
GATE
FENCE (TYP.) F CD–2
OPEN SPACE 35
ARCONA NEIGHBORHOOD 8.1 (UNDER CONSTRUCTION)
GROVE COURT
OS–33
N–2
UGI ENERGY SERVICES INC., FORMERLY / NISOURCE MIDSTREAM SERVICES, LLC
HPPPP
LEGEND
OPEN SPACE
LOT DESIGNATIONS

LOT #	Approved Address	Phase No.
800	3106 Overlook Drive Mechanicsburg PA 17055	8.3
801	3108 Overlook Drive Mechanicsburg PA 17055	8.3
802	3110 Overlook Drive Mechanicsburg PA 17055	8.3
803	3112 Overlook Drive Mechanicsburg PA 17055	8.3
804	3114 Overlook Drive Mechanicsburg PA 17055	8.3
805	3116 Overlook Drive Mechanicsburg PA 17055	8.3
806	3118 Overlook Drive Mechanicsburg PA 17055	8.3
807	3120 Overlook Drive Mechanicsburg PA 17055	8.3
808	3122 Overlook Drive Mechanicsburg PA 17055	8.3
809	3130 Overlook Drive Mechanicsburg PA 17055	8.3
810	3132 Overlook Drive Mechanicsburg PA 17055	8.3
811	3134 Overlook Drive Mechanicsburg PA 17055	8.3
812	3136 Overlook Drive Mechanicsburg PA 17055	8.3
813	3138 Overlook Drive Mechanicsburg PA 17055	8.3
814	3140 Overlook Drive Mechanicsburg PA 17055	8.3
815	3142 Overlook Drive Mechanicsburg PA 17055	8.3
816	3144 Overlook Drive Mechanicsburg PA 17055	8.3
816	2105 Terrebonne Way Mechanicsburg PA 17055	8.3
817	1112 James Street Mechanicsburg PA 17055	8.3
818	1114 James Street Mechanicsburg PA 17055	8.3
819	1116 James Street Mechanicsburg PA 17055	8.3
820	1118 James Street Mechanicsburg PA 17055	8.3
821	1120 James Street Mechanicsburg PA 17055	8.3
822	1122 James Street Mechanicsburg PA 17055	8.3
823	1124 James Street Mechanicsburg PA 17055	8.3
824	1126 James Street Mechanicsburg PA 17055	8.3
825	3131Overlook Drive Mechanicsburg PA 17055	8.3
826	3129 Overlook Drive Mechanicsburg PA 17055	8.3
827	3127 Overlook Drive Mechanicsburg PA 17055	8.3
828	3119 Overlook Drive Mechanicsburg PA 17055	8.3
829	3117 Overlook Drive Mechanicsburg PA 17055	8.3
830	3115 Overlook Drive Mechanicsburg PA 17055	8.3
831	3113 Overlook Drive Mechanicsburg PA 17055	8.3
832	3111 Overlook Drive Mechanicsburg PA 17055	8.3
833	3109 Overlook Drive Mechanicsburg PA 17055	8.3
834	3107 Overlook Drive Mechanicsburg PA 17055	8.3
835	3105 Overlook Drive Mechanicsburg PA 17055	8.3
836	3103 Overlook Drive Mechanicsburg PA 17055	8.3
837	4100 Ridgeview Avenue Mechanicsburg PA 17055	8.3
838	4110 Ridgeview Avenue Mechanicsburg PA 17055	8.3
839	3143 Overlook Drive Mechanicsburg PA 17055	8.3
840	5100 Layton Way Mechanicsburg PA 17055	8.3
840	1300 Rossmoyne Drive Mechanicsburg pa 17055	8.3
841	2102 Terrebonne Way Mechanicsburg PA 17055	8.3
842	2104 Terrebonne Way Mechanicsburg PA 17055	8.3
843	2106 Terrebonne Way Mechanicsburg PA 17055	8.3
844	2108 Terrebonne Way Mechanicsburg PA 17055	8.3
845	2110 Terrebonne Way Mechanicsburg PA 17055	8.3
846	2112 Terrebonne Way Mechanicsburg PA 17055	8.3
847	2116 Terrebonne Way Mechanicsburg PA 17055	8.3
848	2118 Terrebonne Way Mechanicsburg PA 17055	8.3
849	2120 Terrebonne Way Mechanicsburg PA 17055	8.3
850	2121 Terrebonne Way Mechanicsburg PA 17055	8.3
851	2119 Terrebonne Way Mechanicsburg PA 17055	8.3
852	2117 Terrebonne Way Mechanicsburg PA 17055	8.3
853	2115 Terrebonne Way Mechanicsburg PA 17055	8.3
854	2113 Terrebonne Way Mechanicsburg PA 17055	8.3
855	2111 Terrebonne Way Mechanicsburg PA 17055	8.3
856	4110 Leroy Drive Mechanicsburg PA 17055	8.3
857	4112 Leroy Drive Mechanicsburg PA 17055	8.3
858	4114 Leroy Drive Mechanicsburg PA 17055	8.3
859	4116 Leroy Drive Mechanicsburg PA 17055	8.3
860	4118 Leroy Drive Mechanicsburg PA 17055	8.3
861	4120 Leroy Drive Mechanicsburg PA 17055	8.3
862	4125 Leroy Drive Mechanicsburg PA 17055	8.3
863	4123 Leroy Drive Mechanicsburg PA 17055	8.3
864	4121 Leroy Drive Mechanicsburg PA 17055	8.3
865	4119 Leroy Drive Mechanicsburg PA 17055	8.3
866	4117 Leroy Drive Mechanicsburg PA 17055	8.3
867	4115 Leroy Drive Mechanicsburg PA 17055	8.3
868	4113 Leroy Drive Mechanicsburg PA 17055	8.3
869	4111 Leroy Drive Mechanicsburg PA 17055	8.3
870	4109 Leroy Drive Mechanicsburg PA 17055	8.3
871	4107 Leroy Drive Mechanicsburg PA 17055	8.3
872	4133 Ridgeview Avenue Mechanicsburg PA 17055	8.3
873	4131 Ridgeview Avenue Mechanicsburg PA 17055	8.3
874	4129 Ridgeview Avenue Mechanicsburg PA 17055	8.3
875	4127 Ridgeview Avenue Mechanicsburg PA 17055	8.3
876	4125 Ridgeview Avenue Mechanicsburg PA 17055	8.3
877	4123 Ridgeview Avenue Mechanicsburg PA 17055	8.3
878	3125 Overlook Drive Mechanicsburg PA 17055	8.3
879	3123 Overlook Drive Mechanicsburg PA 17055	8.3
880	3121 Overlook Drive Mechanicsburg PA 17055	8.3
881	4102 Ridgeview Avenue Mechanicsburg PA 17055	8.3
882	4104 Ridgeview Avenue Mechanicsburg PA 17055	8.3
883	4106 Ridgeview Avenue Mechanicsburg PA 17055	8.3
884	4108 Ridgeview Avenue Mechanicsburg PA 17055	8.3
885	1125 James Street Mechanicsburg PA 17055	8.3
886	1123 James Street Mechanicsburg PA 17055	8.3
887	1121 James Street Mechanicsburg PA 17055	8.3
888	1119 James Street Mechanicsburg PA 17055	8.3
889	3141 Overlook Drive Mechanicsburg PA 17055	8.3
890	3139 Overlook Drive Mechanicsburg PA 17055	8.3
891	3137 Overlook Drive Mechanicsburg PA 17055	8.3
892	3135 Overlook Drive Mechanicsburg PA 17055	8.3

LEGEND

▨	OPEN SPACE

LOT DESIGNATIONS

801	LOT OR DWELLING UNIT NUMBER
LOT W	BLOCK LOT DESIGNATION

N–1	BUCKEYE 24–INCH HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE EASEMENT DESCRIBED IN MISC. BOK 127, PAGE 115 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENTS GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.
N–2	UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICE, LLC EASEMENT DESCRIBED IN MISC. BOOK 81, PAGE 561 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENT GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

NOTES:

1. SEE EA–1 FOR ALL PROPOSED EASEMENTS AND EXISTING EASEMENTS TO BE EXTINGUISHED.
2. PROPOSED CURB SHOWN ON THIS PLAN IS TO BE BELGIAN BLOCK.
3. STREET ADDRESSES WILL BE POSTED ALONG PRIVATE DRIVES FOR UNITS WITH ONLY PRIVATE DRIVE ACCESS.
4. ALL PRIVATE DRIVES ARE TO BE CONSIDERED PUBLIC EASEMENTS FOR PUBLIC ACCESS AND ALL UTILITIES.
5. PRIVATE STREETS TO BE OWNED AND MAINTAINED BY THE NEIGHBORHOOD ASSOCIATION (NA).
6. EACH DWELLING UNIT WILL HAVE INDIVIDUAL REFUSE PICKUP. ALL RESIDENTIAL UNIT OWNERS ARE REQUIRED TO PLACE REFUSE AT A COLLECTION POINT ACCESSIBLE FOR TRUCK PICKUP, AS DIRECTED BY THE NEIGHBORHOOD ASSOCIATION DOCUMENTS. HOMEOWNERS WILL BE REQUIRED TO BRING REFUSE TO END OF DRIVES.
7. SEE TABLE ON THIS SHEET FOR APPROVED STREET ADDRESSES.
8. SEE SHEET LY–3 FOR LOT AREAS, BEARINGS AND DISTANCES.
9. THE SPEED LIMIT FOR STREETS IN NEIGHBORHOOD 8.3 SHALL BE POSTED AT 15 MPH.
10. SINGLE–FAMILY FRONT LOAD DRIVEWAYS MUST BE 18' (MIN.) DEEP MEASURED FROM STREET RIGHT–OF–WAY.
11. THE FIRST 20' OF ANY DRIVEWAY THAT ENTERS ONTO A STREET SHALL HAVE A MAXIMUM SLOPE OF 7% (SECTION 192–57.B.3.c[2]).
12. DRIVEWAY SLOPES WILL BE DETERMINED AND PROVIDED TO THE TOWNSHIP AT THE TIME OF BUILDING PERMIT APPLICATION FOR EACH DWELLING UNIT.

Sheet Number:
06 of 40
Project Number:
15–100–34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

LAYOUT PLAN

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: 1"=50'

0 25 50 100 150

Seal:
G. MITCHELL KING
No. SU42004-E
1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
LY–2

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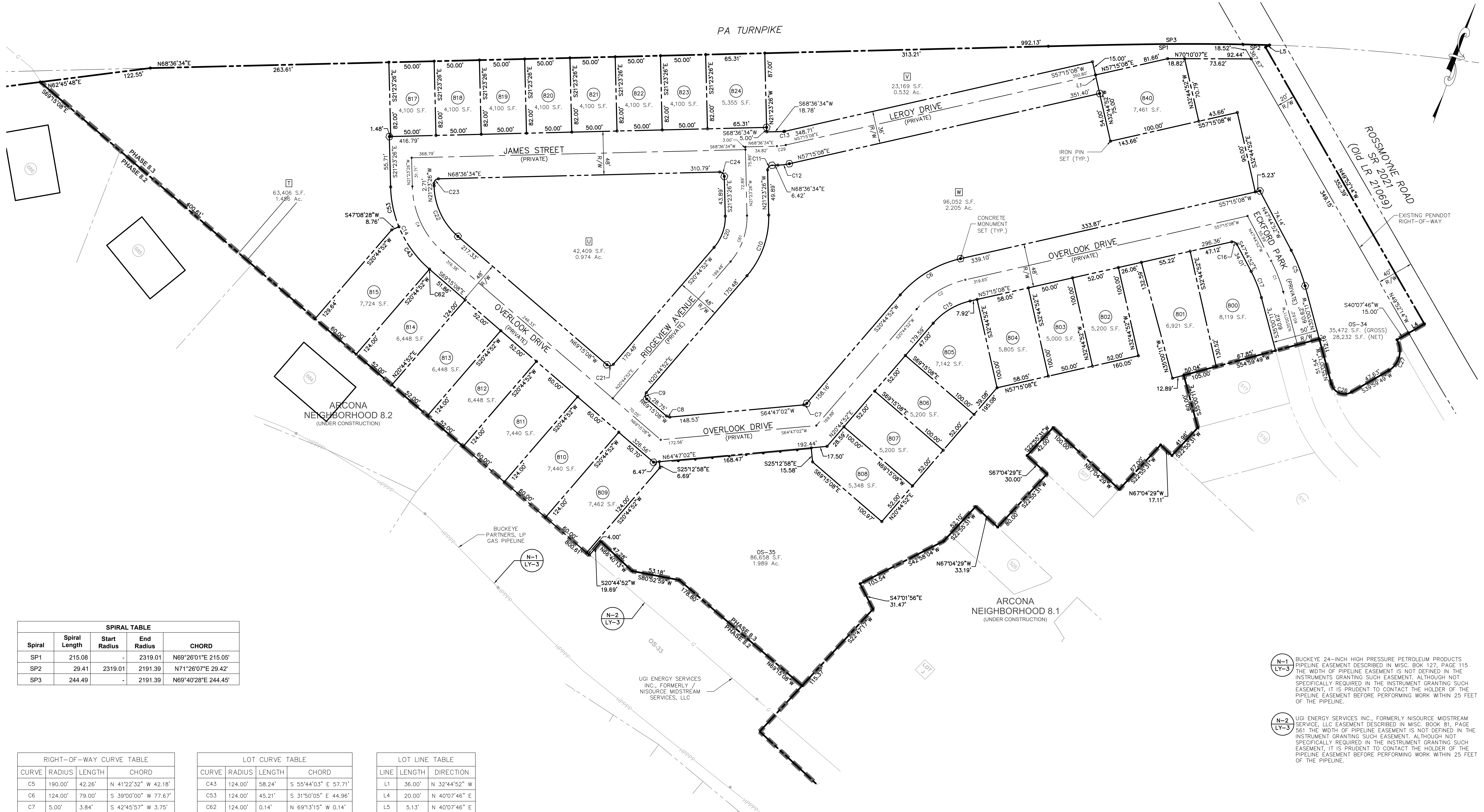
PRELIMINARY / FINAL


PA TURNPIKE
ROSSMOYNE ROAD SR 2021 (Old LR 21069)
EXISTING PENNDOT RIGHT-OF-WAY
JAMES STREET (PRIVATE)
LEROY DRIVE (PRIVATE)
RIDGEVIEW AVENUE (PRIVATE)
OVERLOOK DRIVE (PRIVATE)
ECKFORD PARK (PRIVATE)
PHASE 8.3
PHASE 8.2
ARCONA NEIGHBORHOOD 8.2 (UNDER CONSTRUCTION)
ARCONA NEIGHBORHOOD 8.1 (UNDER CONSTRUCTION)
BUCKEYE PARTNERS, LP GAS PIPELINE
UGI ENERGY SERVICES INC., FORMERLY / NISOURCE MIDSTREAM SERVICES, LLC
IRON PIN SET (TYP.)
CONCRETE MONUMENT SET (TYP.)
T 63,406 S.F. 1.456 Ac.
U 42,409 S.F. 0.974 Ac.
V 23,169 S.F. 0.532 Ac.
W 96,052 S.F. 2.205 Ac.
OS-34 35,472 S.F. (GROSS) 28,232 S.F. (NET)
OS-35 86,658 S.F. 1.989 Ac.
OS-33
817 4,100 S.F.
818 4,100 S.F.
819 4,100 S.F.
820 4,100 S.F.
821 4,100 S.F.
822 4,100 S.F.
823 4,100 S.F.
824 5,355 S.F.
815 7,724 S.F.
814 6,448 S.F.
813 6,448 S.F.
812 6,448 S.F.
811 7,440 S.F.
810 7,440 S.F.
809 7,462 S.F.
808 5,348 S.F.
807 5,200 S.F.
806 5,200 S.F.
805 7,142 S.F.
804 5,805 S.F.
803 5,000 S.F.
802 5,200 S.F.
801 6,921 S.F.
800 8,119 S.F.
840 7,461 S.F.
N-1 LY-3
N-2 LY-3
992.13'
313.21'
263.61'
122.55'
N68°36'34"E
N62°45'48"E
S69°15'08"E
400.61'
800.61'
SP1
SP2
SP3
L1
L5
C5
C6
C7
C8
C9
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C11
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C14
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C29
C43
C53
C62

SPIRAL TABLE				
Spiral	Spiral Length	Start Radius	End Radius	CHORD
SP1	215.08	-	2319.01	N69°26'01"E 215.05'
SP2	29.41	2319.01	2191.39	N71°26'07"E 29.42'
SP3	244.49	-	2191.39	N69°40'28"E 244.45'

N-1 LY-3 BUCKEYE 24-INCH HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE EASEMENT DESCRIBED IN MISC. BOK 127, PAGE 115 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENTS GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

N-2 LY-3 UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICE, LLC EASEMENT DESCRIBED IN MISC. BOOK 81, PAGE 561 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENT GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

RIGHT-OF-WAY CURVE TABLE			
CURVE	RADIUS	LENGTH	CHORD
C5	190.00'	42.26'	N 41°22'32" W 42.18'
C6	124.00'	79.00'	S 39°00'00" W 77.67'
C7	5.00'	3.84'	S 42°45'57" W 3.75'
C8	5.00'	4.01'	S 87°45'57" W 3.90'
C9	5.00'	7.85'	N 24°15'08" W 7.07'
C10	99.00'	72.81'	N 0°19'17" W 71.18'
C11	5.00'	7.85'	N 23°36'34" E 7.07'
C12	65.00'	12.88'	N 62°55'51" E 12.86'
C13	5.00'	0.99'	S 62°55'51" W 0.99'
C14	124.00'	103.58'	S 45°19'17" E 100.60'
C15	76.00'	48.42'	N 39°00'00" E 47.61'
C16	5.00'	6.54'	S 85°14'52" E 6.09'
C17	140.00'	31.14'	S 41°22'32" E 31.08'
C20	51.00'	37.51'	S 0°19'17" E 36.67'
C21	5.00'	7.85'	S 65°44'52" W 7.07'
C22	76.00'	63.49'	N 45°19'17" W 61.66'
C23	5.00'	7.85'	N 23°36'34" E 7.07'
C24	5.00'	7.85'	S 66°23'26" E 7.07'
C26	15.00'	27.49'	N 87°30'11" W 23.80'
C27	25.00'	39.21'	S 4°56'13" E 35.31'

LOT CURVE TABLE			
CURVE	RADIUS	LENGTH	CHORD
C43	124.00'	58.24'	S 55°44'03" E 57.71'
C53	124.00'	45.21'	S 31°50'05" E 44.96'
C62	124.00'	0.14'	N 69°13'15" W 0.14'

LOT LINE TABLE		
LINE	LENGTH	DIRECTION
L1	36.00'	N 32°44'52" W
L4	20.00'	N 40°07'46" E
L5	5.13'	N 40°07'46" E

CENTERLINE CURVE TABLE			
CURVE	RADIUS	LENGTH	CHORD
C1	165.00'	36.70'	N 41°22'32" W 36.63'
C2	100.00'	63.71'	S 39°00'00" W 62.64'
C4	100.00'	83.53'	N 45°19'17" W 81.13'
C29	50.00'	9.91'	N 62°55'51" E 9.89'
C61	75.00'	55.16'	N 00°19'17" W 53.92'

Sheet Number: 07 of 40

Project Number: 15-100-34

Date: APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

PARCEL LABEL PLAN

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: G. MITCHELL KING PE, PLS	Scale: 1"=50'

0 25 50 100 150

Seal: G. MITCHELL KING No. SU042004-E 1/7/25

TOWNE SQUARE ENGINEERING

313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538

Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number: LY-3

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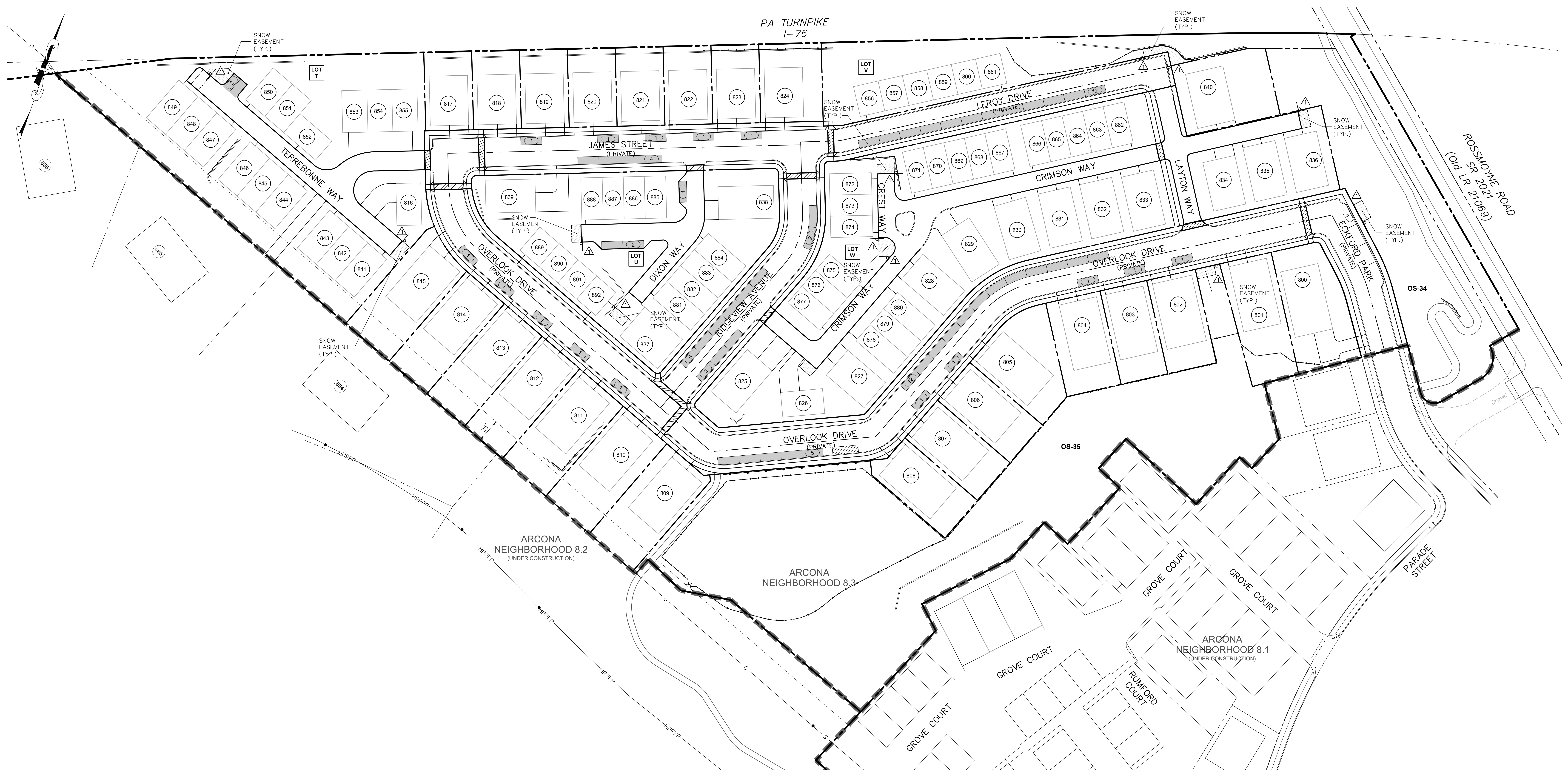
PA TURNPIKE
I-76
ROSSMOYNE ROAD
SR 2021
(Old LR 21069)
SNOW EASEMENT (TYP.)
LOT T
LOT U
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LOT W
TERREBONNE WAY
JAMES STREET (PRIVATE)
LEROY DRIVE (PRIVATE)
CRIMSON WAY
LAYTON WAY
CREST WAY
DIXON WAY
RIDGEVIEW AVENUE (PRIVATE)
OVERLOOK DRIVE (PRIVATE)
ECKFORD PARK (PRIVATE)
OS-34
OS-35
ARCONA NEIGHBORHOOD 8.2 (UNDER CONSTRUCTION)
ARCONA NEIGHBORHOOD 8.3
ARCONA NEIGHBORHOOD 8.1 (UNDER CONSTRUCTION)
GROVE COURT
RUMFORD COURT
PARADE STREET
Gravel
25'

LEGEND

DESCRIPTION	MUTCD #
⚠1 NO PARKING	– R8–3

NOTES:

1. TO THE RIGHT OR LEFT AND IN FRONT OF EACH SNOW STORAGE AREA, PLACE AN R8–3 "NO PARKING" SIGN AND AN INFORMATIONAL SIGN.
2. NO ON–STREET PARKING DURING SNOW EVENTS – SIGNS TO BE ADDED AS REQUIRED.

▨ GUEST PARKING SPACES

▨ SNOW EASEMENT

NOTE:

1. NEIGHBORHOOD ASSOCIATION TO MAINTAIN AND KEEP CLEAR ALL SNOW EASEMENTS AND THE 15' WIDE EMERGENCY ACCESS DRIVE. THE EMERGENCY ACCESS DRIVE MUST BE PLOWED / CLEARED WITHIN 24 HOURS AFTER EACH SNOWFALL (SEE SHEET PF-7).

PARKING DATA - ARCONA NEIGHBORHOOD 8

Description	Garage Spaces	On-Street Parking	Off-Street Parking	Total Spaces Provided	Total Spaces Required	Guest Spaces
Arcona - 8.1 (Revision #2)	264	68	49	381	292	89
Arcona - 8.2 (Revision #1)	288	55	15	358	288	70
Arcona - 8.3	186	64	5	255	186	69
Total Spaces	**738**	**187**	**69**	**994**	**766**	**228**

Sheet Number:
08 of 40
Project Number:
15–100–34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

GUEST PARKING AND SNOW EASEMENT PLAN

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: 1"=50'

0 25 50 100 150

Seal:
G. MITCHELL KING
No. SU42004-E
1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
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9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
LY–4

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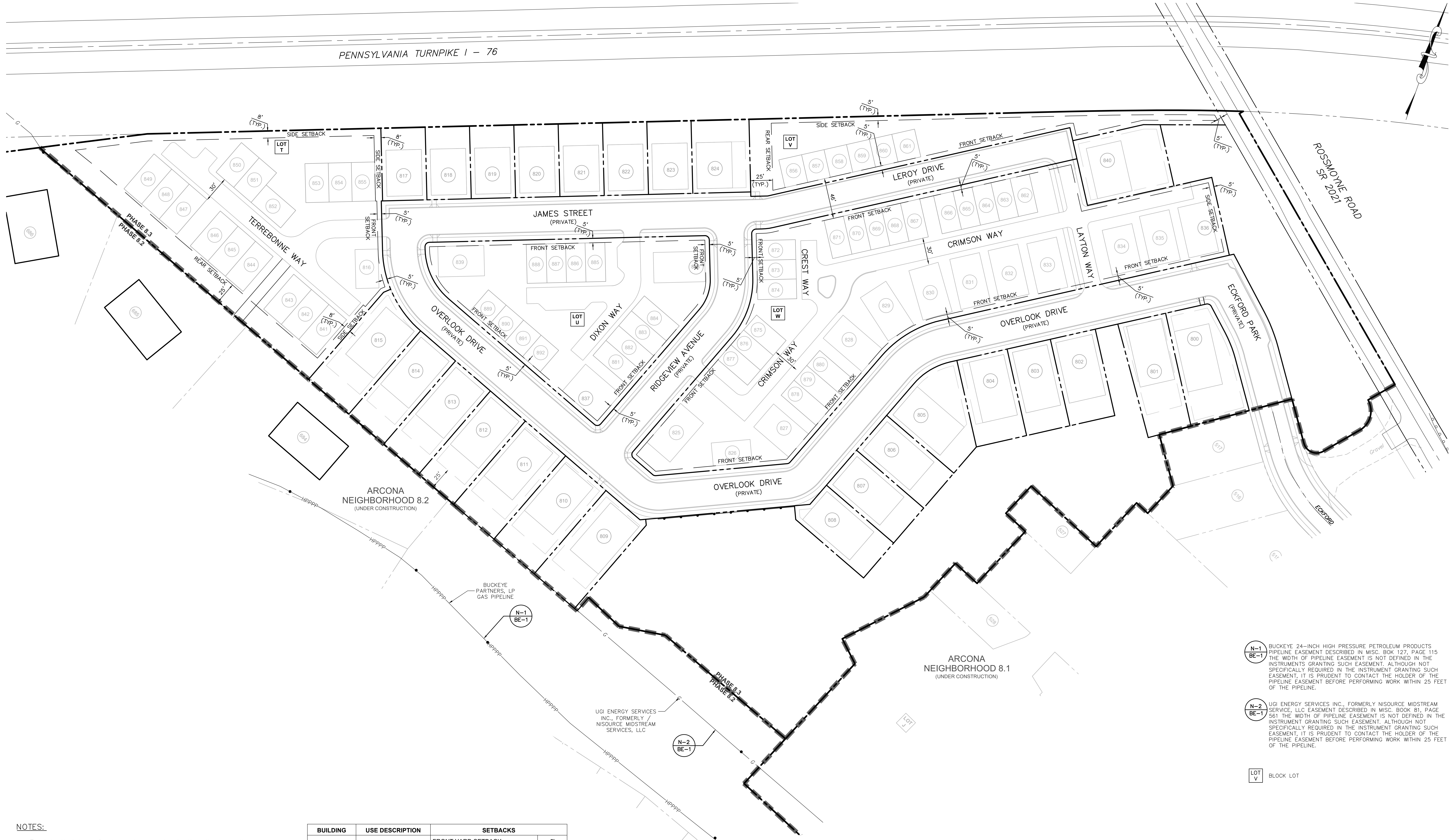
PRELIMINARY / FINAL


PENNSYLVANIA TURNPIKE I – 76
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SR 2021
LEROY DRIVE
(PRIVATE)
JAMES STREET
(PRIVATE)
CRIMSON WAY
LAYTON WAY
CREST WAY
TERREBONNE WAY
DIXON WAY
RIDGEVIEW AVENUE
(PRIVATE)
CRIMSON WAY
OVERLOOK DRIVE
(PRIVATE)
ECKFORD PARK
(PRIVATE)
ECKFORD
LOT T
LOT U
LOT V
LOT W
SIDE SETBACK
FRONT SETBACK
REAR SETBACK
5' (TYP.)
8' (TYP.)
25' (TYP.)
30'
46'
25'
PHASE 8.3
PHASE 8.2
ARCONA NEIGHBORHOOD 8.2
(UNDER CONSTRUCTION)
ARCONA NEIGHBORHOOD 8.1
(UNDER CONSTRUCTION)
BUCKEYE PARTNERS, LP GAS PIPELINE
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UGI ENERGY SERVICES INC., FORMERLY / NISOURCE MIDSTREAM SERVICES, LLC
N–2 BE–1
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BE–1
BUCKEYE 24–INCH HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE EASEMENT DESCRIBED IN MISC. BOK 127, PAGE 115 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENTS GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

N–2
BE–1
UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICE, LLC EASEMENT DESCRIBED IN MISC. BOOK 81, PAGE 561 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENT GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

LOT V — BLOCK LOT

NOTES:

- For lots that have frontage along a street other than an alley (including block lots on which multiple dwellings or buildings will be constructed and on dwelling lots on which one dwelling is to be constructed), the street frontage will establish the front yard per the definition of "lot line, front" under Section 220–6.C. On a corner lot, all lot lines which abut a street other than an alley shall be front lot lines and each lot line opposite each front line shall be a side lot line. On a through lot, the front lot line shall be the lot line which abuts the street providing the primary access to the lot.
- Upon completion of construction of proposed dwellings on each of Lots T, U, V, and W, each such lot shall not be further subdivided.
- The separation of buildings on Lots T, U, V, and W is regulated by the applicable provisions of building codes adopted under the Pennsylvania Construction Code Act.
- Notwithstanding the foregoing, buildings located on opposite sides of an alley shall be separated by a minimum distance of 30 feet including architectural projections.

BUILDING	USE DESCRIPTION	SETBACKS	
SF-DETACHED	RESIDENTIAL	FRONT YARD SETBACK	5'
		SIDE YARD SETBACK (10' TOTAL)	5'
		REAR YARD SETBACK	25'
		REAR YARD SETBACK W/ ALLEY	5'
SF-ATTACHED	RESIDENTIAL	FRONT YARD SETBACK	5'
		SIDE YARD SETBACK	8'
		REAR YARD SETBACK	25'
		REAR YARD SETBACK W/ ALLEY	5'

NOTE:

VISUAL OFFSET PROVISIONS WILL BE MET VIA STEPPED ARCHITECTURE AND GRADING VERIFIED AT BUILDING PERMIT APPLICATION.

Sheet Number:
09 of 40

Project Number:
15–100–34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

BUILDING SETBACK EXHIBIT

Drafting:
D TURNER

Checked by:
–

Scale:
1"=50'

0 25 50 100 150

Project Manager:
DAVID B. KEGERIZE PE

Project Engineer:
G. MITCHELL KING PE, PLS

Project Surveyor:
MATTHEW D. DENNIS PE, PLS

Seal:
G. MITCHELL KING
No. SU42004-E
1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
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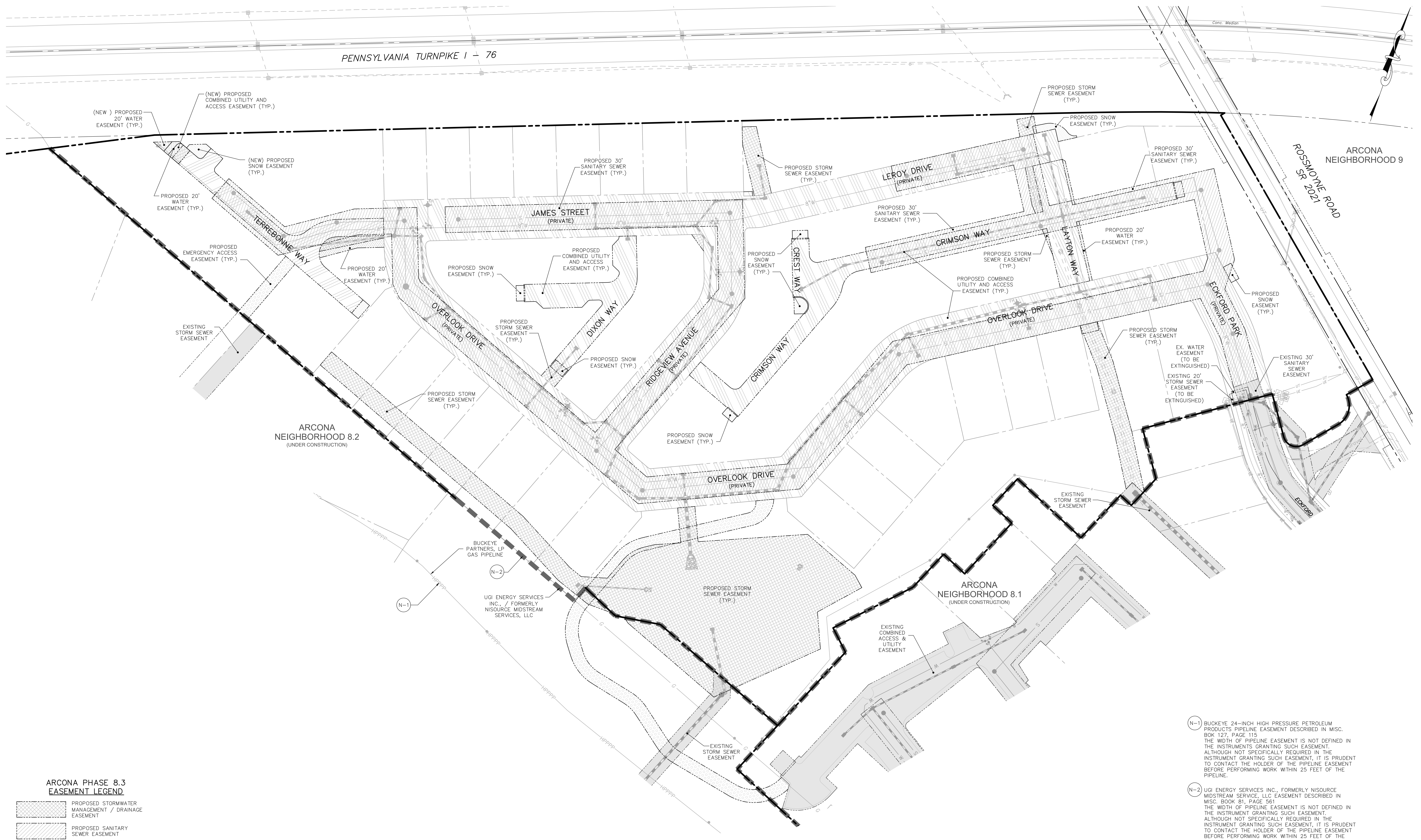
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
BE–1

1/21/2025 12:53 PM L:\15–100–34\SHEETS\PRELIMINARY\09 BE–01.DWG

PRELIMINARY / FINAL


PENNSYLVANIA TURNPIKE I – 76
Conc. Median
ROSSMOYNE ROAD SR 2021
ARCONA NEIGHBORHOOD 9
ARCONA NEIGHBORHOOD 8.2 (UNDER CONSTRUCTION)
ARCONA NEIGHBORHOOD 8.1 (UNDER CONSTRUCTION)
TERREBONNE WAY
JAMES STREET (PRIVATE)
LEROY DRIVE (PRIVATE)
CRIMSON WAY
LAYTON WAY
CREST WAY
DIXON WAY
RIDGEVIEW AVENUE (PRIVATE)
OVERLOOK DRIVE (PRIVATE)
ECKFORD PARK (PRIVATE)
ECKFORD
(NEW) PROPOSED COMBINED UTILITY AND ACCESS EASEMENT (TYP.)
(NEW) PROPOSED 20' WATER EASEMENT (TYP.)
(NEW) PROPOSED SNOW EASEMENT (TYP.)
PROPOSED 20' WATER EASEMENT (TYP.)
PROPOSED EMERGENCY ACCESS EASEMENT (TYP.)
PROPOSED 20' WATER EASEMENT (TYP.)
EXISTING STORM SEWER EASEMENT
PROPOSED 30' SANITARY SEWER EASEMENT (TYP.)
PROPOSED COMBINED UTILITY AND ACCESS EASEMENT (TYP.)
PROPOSED SNOW EASEMENT (TYP.)
PROPOSED STORM SEWER EASEMENT (TYP.)
PROPOSED SNOW EASEMENT (TYP.)
PROPOSED STORM SEWER EASEMENT (TYP.)
PROPOSED STORM SEWER EASEMENT (TYP.)
PROPOSED SNOW EASEMENT (TYP.)
PROPOSED SNOW EASEMENT (TYP.)
PROPOSED STORM SEWER EASEMENT (TYP.)
PROPOSED SNOW EASEMENT (TYP.)
PROPOSED 30' SANITARY SEWER EASEMENT (TYP.)
PROPOSED 30' SANITARY SEWER EASEMENT (TYP.)
PROPOSED STORM SEWER EASEMENT (TYP.)
PROPOSED COMBINED UTILITY AND ACCESS EASEMENT (TYP.)
PROPOSED 20' WATER EASEMENT (TYP.)
PROPOSED SNOW EASEMENT (TYP.)
PROPOSED STORM SEWER EASEMENT (TYP.)
EX. WATER EASEMENT (TO BE EXTINGUISHED)
EXISTING 20' STORM SEWER EASEMENT (TO BE EXTINGUISHED)
EXISTING 30' SANITARY SEWER EASEMENT
EXISTING STORM SEWER EASEMENT
BUCKEYE PARTNERS, LP GAS PIPELINE
UGI ENERGY SERVICES INC., / FORMERLY NISOURCE MIDSTREAM SERVICES, LLC
N-1
N-2
PROPOSED STORM SEWER EASEMENT (TYP.)
EXISTING COMBINED ACCESS & UTILITY EASEMENT
EXISTING STORM SEWER EASEMENT

ARCONA PHASE 8.3
EASEMENT LEGEND

▨	PROPOSED STORMWATER MANAGEMENT / DRAINAGE EASEMENT
▨	PROPOSED SANITARY SEWER EASEMENT
▨	PROPOSED WATERLINE EASEMENT
▨	PROPOSED COMBINED UTILITY AND ACCESS EASEMENT
▨	PROPOSED SNOW EASEMENT
▨	PROPOSED EMERGENCY ACCESS EASEMENT
▨	EXISTING EASEMENTS (OTHER)
▨	EASEMENTS TO BE EXTINGUISHED

(N-1) BUCKEYE 24-INCH HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE EASEMENT DESCRIBED IN MISC. BOK 127, PAGE 115
THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENTS GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

(N-2) UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICE, LLC EASEMENT DESCRIBED IN MISC. BOOK 81, PAGE 561
THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENT GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

NOTES:

1. EXISTING UTILITY AND UNDERGROUND PIPELINE EASEMENTS ARE SHOWN ON THE EA SHEETS.
2. SEE EA-1 FOR ALL PROPOSED EASEMENTS AND EXISTING EASEMENTS TO BE EXTINGUISHED, RELOCATED OR ENLARGED.
3. SEE EA-2 THRU EA-4 FOR EASEMENT DETAILS AND TABLES.
4. THE ACTUAL LIMITS OF THE UTILITY EASEMENTS WITHIN THE AREAS ON THIS PLAN NOTED AS "COMBINED UTILITY AND ACCESS EASEMENTS" ARE SPECIFICALLY SET FORTH IN THE GRANTS OF THOSE EASEMENTS TO THE INDIVIDUAL UTILITY PROVIDER, WHICH GRANTS ARE BEING RECORDED SEPARATE FROM THIS PLAN.

Sheet Number:
10 of 40
Project Number:
15-100-34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3
Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

EASEMENT PLAN – OVERALL

Project Manager:
DAVID B. KEGERIZE PE
Drafting:
D TURNER
Project Engineer:
G. MITCHELL KING PE, PLS
Checked by:
–
Project Surveyor:
G. MITCHELL KING PE, PLS
Scale:
1"=50'
0 25 50 100 150

Seal:
G. MITCHELL KING
No. SU42004-E
1/7/25

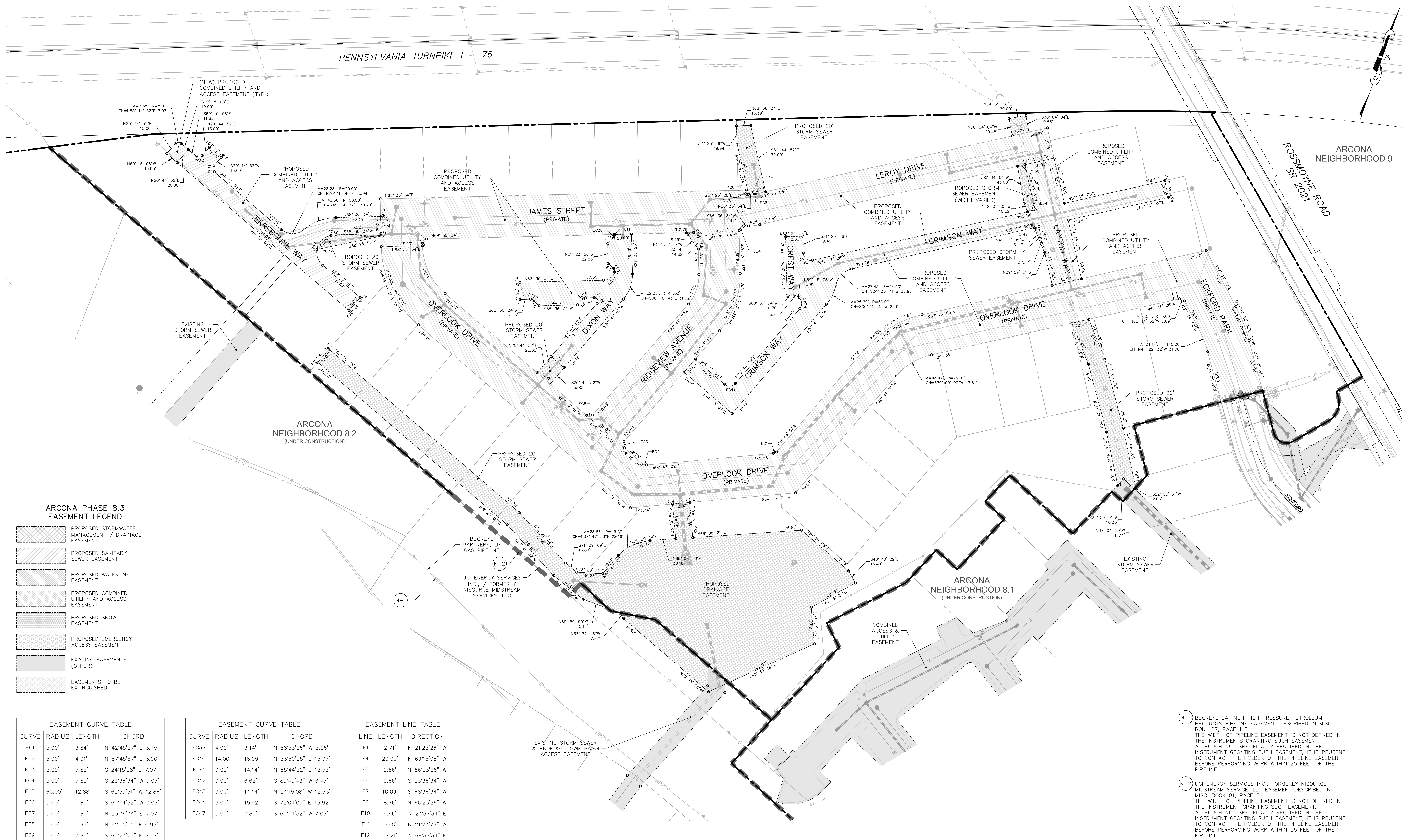
TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
EA-1

PRELIMINARY / FINAL

3/10/2025 9:08 AM L:\15-100-34\SHEETS\PRELIMINARY\13 EA-04.DWG


PENNSYLVANIA TURNPIKE I – 76
Conc. Median
(NEW) PROPOSED COMBINED UTILITY AND ACCESS EASEMENT (TYP.)
A=7.85', R=5.00' CH=N65° 44' 52"E 7.07'
S69° 15' 08"E 10.95'
S69° 15' 08"E 11.83'
N20° 44' 52"E 15.00'
N20° 44' 52"E 13.00'
S69° 15' 08"E 18.00'
N69° 15' 08"W 15.95'
S20° 44' 52"W 13.00'
N20° 44' 52"E 20.00'
EC10
EC11
S69° 15' 08"E
PROPOSED COMBINED UTILITY AND ACCESS EASEMENT
A=28.23', R=20.00' CH=N70° 18' 46"E 25.94'
A=40.56', R=60.00' CH=N49° 14' 37"E 39.79'
102.99'
TERREBONNE WAY
264.04'
N69° 15' 08"W
N68° 36' 34"E
52.29'
52.29'
EC13
S68° 36' 34"W
2.83'
S58° 13' 08"W
EC12
EC25
76.15'
N21° 23' 26"W 55.71'
20.00'
PROPOSED 20' STORM SEWER EASEMENT
S69° 15' 08"E 57.69'
S20° 44' 52"W 20.00'
N68° 36' 34"E
48.00'
N68° 36' 34"E
EC7
E1
EC29
CH=N45° 19' 17"W 100.60'
A=103.58', R=124.00'
217.33'
326.56'
OVERLOOK DRIVE
(PRIVATE)
EXISTING STORM SEWER EASEMENT
PROPOSED COMBINED UTILITY AND ACCESS EASEMENT
JAMES STREET
(PRIVATE)
N68° 36' 34"E
EC38
E11
E10
20.00'
N21° 23' 26"W 22.83'
46.06'
S21° 23' 26"E
E8
EC37
97.30'
EC40
N68° 36' 34"E
N21° 23' 26"W
20.00'
EC39
E5
44.83'
S68° 36' 34"W
S68° 36' 34"W 12.03'
EC36
E6
E7
EC35
DIXON WAY
A=32.35', R=44.00' CH=S00° 18' 43"E 31.62'
S20° 44' 52"W
N20° 44' 52"E 81.81'
PROPOSED 20' STORM SEWER EASEMENT
N20° 44' 52"E 25.00'
E4
105.46'
20.00'
S20° 44' 52"W 25.00'
N68° 36' 34"E 16.39'
PROPOSED 20' STORM SEWER EASEMENT
N21° 23' 26"W 19.94'
S32° 44' 52"E 79.00'
N32° 44' 52"W 61.26'
6.72'
426.90'
12.43
S21° 23' 26"E 5.00'
N57° 15' 08"E
EC8
N68° 36' 34"E 8.67'
S68° 36' 34"W 6.42'
EC5
351.40'
310.79'
EC9
48.37'
S61° 29' 04"W
8.29'
N55° 54' 47"W 23.44'
14.32'
EC4
43.89'
S21° 23' 26"E
49.89'
S21° 23' 26"E
EC15
A=72.81', R=99.00' CH=S00° 19' 17"E 71.18'
RIDGEVIEW AVENUE
(PRIVATE)
S20° 44' 52"W
S20° 44' 52"W
N68° 36' 34"E
20.00'
S21° 23' 26"E 19.49'
68.33'
N21° 23' 26"W
CREST WAY
EC44
N57° 15' 08"E
N69° 15' 08"W 1.58'
S68° 36' 34"W 6.70'
EC42
EC43
114.90'
S20° 44' 52"W
CRIMSON WAY
20.00'
S69° 15' 08"E 45.00'
N20° 44' 52"E
EC41
74.00'
N69° 15' 08"W
168.13'
EC6
170.48'
N69° 15' 08"W
58.00'
N69° 15' 08"W
170.48'
EC3
S69° 15' 08"E
28.75'
EC2
N64° 47' 02"E
EC1
N20° 44' 52"E
148.53'
OVERLOOK DRIVE
(PRIVATE)
179.59'
S64° 47' 02"W
N69° 15' 08"W
192.44'
N64° 47' 02"E
20.00'
N25° 12' 58"W 40.50
S25° 12' 58"E 40.98'
N66° 08' 29"E
126.81'
S69° 15' 08"E
72.23'
S48° 40' 29"E 16.49'
58.49'
S41° 19' 31"W
42.92'
S24° 39' 57"E
135.07'
S45° 39' 16"W
N69° 13'
A=28.66', R=45.50' CH=N38° 47' 33"E 28.19'
N56° 50' 14"E 12.72
N66° 08' 29"E 30.18'
S71° 09' 09"E 16.80'
N73° 20' 31"E 30.23'
28.01'
N20° 44' 52"E
43.98'
N71° 09' 09"W
N89° 50' 59"W 45.14'
N53° 32' 46"W 7.87'
130.90'
PROPOSED DRAINAGE EASEMENT
PROPOSED 20' STORM SEWER EASEMENT
291.70'
N69° 20' 03"W
S62° 26' 32"E 80.06'
N62° 26' 32"W 80.38'
BUCKEYE PARTNERS, LP GAS PIPELINE
UGI ENERGY SERVICES INC., / FORMERLY NISOURCE MIDSTREAM SERVICES, LLC
N-1
N-2
HPPPP
G
EXISTING STORM SEWER & PROPOSED SWM BASIN ACCESS EASEMENT
S69° 20' 03"E
N20° 44' 52"E
ARCONA NEIGHBORHOOD 8.2
(UNDER CONSTRUCTION)
LEROY DRIVE
(PRIVATE)
N59° 55' 56"E 20.00'
S30° 04' 04"E 19.55'
N30° 04' 04"W 20.48'
20.02'
348.71'
36.00'
S57° 15' 08"W
35.00'
8.68'
N30° 04' 04"W 43.68'
N32° 44' 52"W 54.00'
PROPOSED STORM SEWER EASEMENT (WIDTH VARIES)
N42° 31' 05"W 10.52'
8.94'
265.49
54.00'
S32° 44' 52"E
PROPOSED COMBINED UTILITY AND ACCESS EASEMENT
N57° 15' 08"E
119.66'
20.00'
S32° 44' 52"E
S57° 15' 08"W
119.66'
S32° 44' 52"E
S57° 15' 08"W
5.49'
N42° 31' 05"W 31.17'
PROPOSED STORM SEWER EASEMENT
32.52'
N39° 09' 21"W 1.81'
70.00'
N32° 44' 52"W
LAYTON WAY
70.00'
35.00'
PROPOSED COMBINED UTILITY AND ACCESS EASEMENT
223.49'
A=27.43', R=24.00' CH=S24° 30' 41"W 25.96'
A=25.29', R=50.00' CH=S06° 15' 33"W 25.02'
PROPOSED COMBINED UTILITY AND ACCESS EASEMENT
OVERLOOK DRIVE
(PRIVATE)
N57° 15' 08"E
CH=N39° 00' 00"E 77.67'
A=79.00', R=124.00'
158.16'
296.36'
A=48.42', R=76.00' CH=S39° 00' 00"W 47.61'
S20° 44' 52"W
339.10'
S47° 44' 52"E 74.14'
ECKFORD PARK
(PRIVATE)
CH=S41° 22' 32"E 42.18'
A=42.26', R=190.00'
S57° 15' 08"W
A=6.54', R=5.00' CH=N85° 14' 52"W 6.09'
N47° 44' 52"W 34.01'
A=31.14', R=140.00' CH=N41° 22' 32"W 31.08'
N35° 00' 11"W 60.62'
S35° 00' 11"E 60.62'
50.00'
S54° 59' 49"W
20.25'
S41° 42' 03"E 49.82'
N41° 42' 03"W 51.80'
81.61'
S35° 00' 11"E
N35° 00' 11"W 63.32'
83.34'
S31° 46' 31"E
N31° 46' 31"W
70.68'
PROPOSED 20' STORM SEWER EASEMENT
S22° 55' 31"W 2.06'
S22° 55' 31"W 10.33'
N67° 04' 29"W 17.11'
EXISTING STORM SEWER EASEMENT
ROSSMOYNE ROAD SR 2021
ARCONA NEIGHBORHOOD 9
ECKFORD
Gravel
ARCONA NEIGHBORHOOD 8.1
(UNDER CONSTRUCTION)
COMBINED ACCESS & UTILITY EASEMENT
8"W
S
FH

ARCONA PHASE 8.3
EASEMENT LEGEND

- ▨ PROPOSED STORMWATER MANAGEMENT / DRAINAGE EASEMENT
- ▨ PROPOSED SANITARY SEWER EASEMENT
- ▨ PROPOSED WATERLINE EASEMENT
- ▨ PROPOSED COMBINED UTILITY AND ACCESS EASEMENT
- ▨ PROPOSED SNOW EASEMENT
- ▨ PROPOSED EMERGENCY ACCESS EASEMENT
- ▨ EXISTING EASEMENTS (OTHER)
- ▨ EASEMENTS TO BE EXTINGUISHED

EASEMENT CURVE TABLE			
CURVE	RADIUS	LENGTH	CHORD
EC1	5.00'	3.84'	N 42°45'57" E 3.75'
EC2	5.00'	4.01'	N 87°45'57" E 3.90'
EC3	5.00'	7.85'	S 24°15'08" E 7.07'
EC4	5.00'	7.85'	S 23°36'34" W 7.07'
EC5	65.00'	12.88'	S 62°55'51" W 12.86'
EC6	5.00'	7.85'	S 65°44'52" W 7.07'
EC7	5.00'	7.85'	N 23°36'34" E 7.07'
EC8	5.00'	0.99'	N 62°55'51" E 0.99'
EC9	5.00'	7.85'	S 66°23'26" E 7.07'
EC10	5.00'	7.85'	N 65°44'52" E 7.07'
EC11	5.00'	7.85'	S 24°15'08" E 7.07'
EC12	20.00'	45.17'	S 4°33'10" E 36.16'
EC13	40.00'	5.91'	S 64°22'41" W 5.90'
EC15	51.00'	37.51'	S 0°19'17" E 36.67'
EC25	20.00'	24.78'	N 24°38'54" E 23.23'
EC29	76.00'	63.49'	N 45°19'17" W 61.66'
EC35	4.00'	9.23'	N 45°19'17" W 7.31'
EC36	4.00'	3.14'	S 46°06'34" W 3.06'
EC37	4.00'	4.57'	N 33°39'35" W 4.33'
EC38	4.00'	3.14'	N 1°06'34" E 3.06'

EASEMENT CURVE TABLE			
CURVE	RADIUS	LENGTH	CHORD
EC39	4.00'	3.14'	N 88°53'26" W 3.06'
EC40	14.00'	16.99'	N 33°50'25" E 15.97'
EC41	9.00'	14.14'	N 65°44'52" E 12.73'
EC42	9.00'	6.62'	S 89°40'43" W 6.47'
EC43	9.00'	14.14'	N 24°15'08" W 12.73'
EC44	9.00'	15.92'	S 72°04'09" E 13.92'
EC47	5.00'	7.85'	S 65°44'52" W 7.07'

EASEMENT LINE TABLE		
LINE	LENGTH	DIRECTION
E1	2.71'	N 21°23'26" W
E4	20.00'	N 69°15'08" W
E5	9.66'	N 66°23'26" W
E6	9.66'	S 23°36'34" W
E7	10.09'	S 68°36'34" W
E8	8.76'	N 66°23'26" W
E10	9.66'	N 23°36'34" E
E11	0.98'	N 21°23'26" W
E12	19.21'	N 68°36'34" E
E13	7.58'	S 69°15'08" E
E14	13.00'	S 20°44'52" W
E15	16.83'	N 69°15'08" W
E16	5.11'	N 20°44'52" E

(N–1) BUCKEYE 24–INCH HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE EASEMENT DESCRIBED IN MISC. BOK 127, PAGE 115
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(N–2) UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICE, LLC EASEMENT DESCRIBED IN MISC. BOOK 81, PAGE 561
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Sheet Number:
11 of 40
Project Number:
15–100–34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

EASEMENT PLAN – STORM DRAINAGE AND COMBINED ACCESS & UTILITY EASEMENTS

Drafting: D TURNER
Checked by: –
Scale: 1"=50'
0 25 50 100 150
Project Manager: DAVID B. KEGERIZE PE
Project Engineer: G. MITCHELL KING PE, PLS
Project Surveyor: G. MITCHELL KING PE, PLS

Seal: G. MITCHELL KING No. SU42004-E 1/7/25

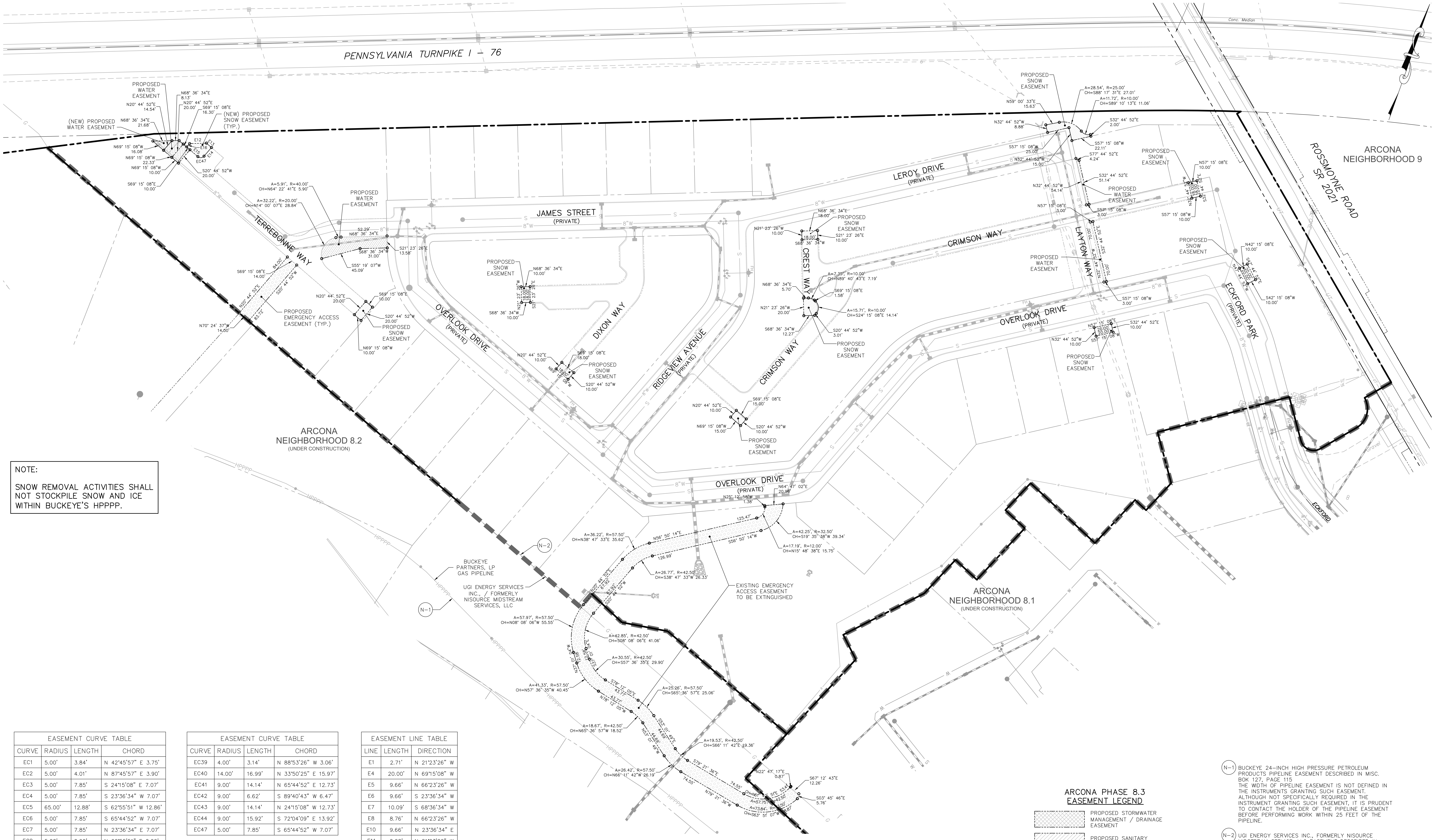
TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
EA–2

1/21/2025 12:49 PM L:\15–100–34\SHEETS\PRELIMINARY\13 EA–04.DWG

PRELIMINARY / FINAL


PENNSYLVANIA TURNPIKE I - 76
Conc. Median
ROSSMOYNE ROAD
SR 2021
ARCONA
NEIGHBORHOOD 9
ARCONA
NEIGHBORHOOD 8.2
(UNDER CONSTRUCTION)
ARCONA
NEIGHBORHOOD 8.1
(UNDER CONSTRUCTION)
TERREBONNE WAY
JAMES STREET
(PRIVATE)
LEROY DRIVE
(PRIVATE)
CRIMSON WAY
CREST WAY
LAYTON WAY
DIXON WAY
RIDGEVIEW AVENUE
(PRIVATE)
OVERLOOK DRIVE
(PRIVATE)
ECKFORD PARK
(PRIVATE)
ECKFORD
PROPOSED WATER EASEMENT
(NEW) PROPOSED WATER EASEMENT
(NEW) PROPOSED SNOW EASEMENT (TYP.)
PROPOSED SNOW EASEMENT
PROPOSED EMERGENCY ACCESS EASEMENT (TYP.)
EXISTING EMERGENCY ACCESS EASEMENT TO BE EXTINGUISHED
BUCKEYE PARTNERS, LP GAS PIPELINE
UGI ENERGY SERVICES INC., / FORMERLY NISOURCE MIDSTREAM SERVICES, LLC
N-1
N-2
HPPPP
8"W
S
G
W
FH
E12
E13
E14
E15
E16
EC47
N68° 36' 34"E 8.13'
N20° 44' 52"E 14.54'
N20° 44' 52"E 20.00'
S69° 15' 08"E 16.30'
N68° 36' 34"E 21.68'
N69° 15' 08"W 16.08'
N69° 15' 08"W 22.33'
N69° 15' 08"W 10.00'
S20° 44' 52"W 20.00'
S69° 15' 08"E 10.00'
A=5.91', R=40.00' CH=N64° 22' 41"E 5.90'
A=32.22', R=20.00' CH=N14° 00' 07"E 28.84'
52.29' N68° 36' 34"E
S21° 23' 26"E 13.58'
S68° 36' 34"W 31.00'
S55° 19' 07"W 45.09'
84.00'
S69° 15' 08"E 14.00'
N20° 44' 52"E
S20° 44' 52"W
83.72'
N70° 24' 37"W 14.00'
N20° 44' 52"E 20.00'
S69° 15' 08"E 10.00'
S20° 44' 52"W 20.00'
N69° 15' 08"W 10.00'
N68° 36' 34"E 10.00'
N21° 23' 26"W
18.00'
S21° 23' 26"E
S68° 36' 34"W 10.00'
N20° 44' 52"E 10.00'
S69° 15' 08"E 18.00'
N69° 15' 08"W
S20° 44' 52"W 10.00'
N20° 44' 52"E 10.00'
S69° 15' 08"E 15.00'
N69° 15' 08"W 15.00'
S20° 44' 52"W 10.00'
N68° 36' 34"E 18.00'
N21° 23' 26"W 10.00'
S21° 23' 26"E 10.00'
S68° 36' 34"W
A=7.35', R=10.00' CH=N89° 40' 43"E 7.19'
N68° 36' 34"E 5.70'
S69° 15' 08"E 1.58'
N21° 23' 26"W 20.00'
A=15.71', R=10.00' CH=S24° 15' 08"E 14.14'
S68° 36' 34"W 12.27'
S20° 44' 52"W 3.01'
N59° 00' 33"E 15.63'
A=28.54', R=25.00' CH=S88° 17' 31"E 27.01'
A=11.72', R=10.00' CH=S89° 10' 13"E 11.06'
N32° 44' 52"W 8.88'
S32° 44' 52"E 2.00'
S57° 15' 08"W 25.00'
S57° 15' 08"W 22.11'
N32° 44' 52"W 15.00'
S77° 44' 52"E 4.24'
S32° 44' 52"E 51.14'
N32° 44' 52"W 54.14'
N57° 15' 08"E 3.00'
S57° 15' 08"W 3.00'
70.00'
S32° 44' 52"E
N32° 44' 52"W
S57° 15' 08"W 3.00'
N57° 15' 08"E 10.00'
S57° 15' 08"W 10.00'
N42° 15' 08"E 10.00'
S47° 44' 52"E
N47° 44' 52"W
20.00'
S42° 15' 08"W 10.00'
N57° 15' 08"E
S32° 44' 52"E 10.00'
N32° 44' 52"W 10.00'
S57° 15' 08"W
N25° 12' 58"W 1.38'
N64° 47' 02"E 20.96'
125.47'
N56° 50' 14"E
S56° 50' 14"W
126.99'
A=42.25', R=32.50' CH=S19° 35' 38"W 39.34'
A=17.19', R=12.00' CH=N15° 48' 38"E 15.75'
A=36.22', R=57.50' CH=N38° 47' 33"E 35.62'
A=26.77', R=42.50' CH=S38° 47' 33"W 26.33'
N20° 44' 52"E 67.92'
S20° 44' 52"W 67.92'
A=57.97', R=57.50' CH=N08° 08' 06"W 55.55'
A=42.85', R=42.50' CH=S08° 08' 06"E 41.06'
N37° 01' 04"W 12.58'
S37° 01' 04"E 12.58'
A=30.55', R=42.50' CH=S57° 36' 35"E 29.90'
A=41.33', R=57.50' CH=N57° 36' 35"W 40.45'
S78° 12' 05"E 43.77'
N78° 12' 05"W 43.77'
A=25.26', R=57.50' CH=S65° 36' 57"E 25.06'
A=18.67', R=42.50' CH=N65° 36' 57"W 18.52'
S53° 01' 49"E 44.69'
N53° 01' 49"W 44.69'
A=19.53', R=42.50' CH=S66° 11' 42"E 19.36'
A=26.42', R=57.50' CH=N66° 11' 42"W 26.19'
S79° 21' 36"E 74.55'
N79° 21' 36"W 74.55'
CH=N61° 42' 51"E 53.41'
A=57.75', R=42.50'
A=73.84', R=57.50'
CH=S63° 51' 07"W 68.87'
N22° 47' 17"E 0.87'
S67° 12' 43"E 12.26'
S03° 45' 46"E 5.76'

NOTE:

SNOW REMOVAL ACTIVITIES SHALL NOT STOCKPILE SNOW AND ICE WITHIN BUCKEYE'S HPPPP.

EASEMENT CURVE TABLE			
CURVE	RADIUS	LENGTH	CHORD
EC1	5.00'	3.84'	N 42°45'57" E 3.75'
EC2	5.00'	4.01'	N 87°45'57" E 3.90'
EC3	5.00'	7.85'	S 24°15'08" E 7.07'
EC4	5.00'	7.85'	S 23°36'34" W 7.07'
EC5	65.00'	12.88'	S 62°55'51" W 12.86'
EC6	5.00'	7.85'	S 65°44'52" W 7.07'
EC7	5.00'	7.85'	N 23°36'34" E 7.07'
EC8	5.00'	0.99'	N 62°55'51" E 0.99'
EC9	5.00'	7.85'	S 66°23'26" E 7.07'
EC10	5.00'	7.85'	N 65°44'52" E 7.07'
EC11	5.00'	7.85'	S 24°15'08" E 7.07'
EC12	20.00'	45.17'	S 4°33'10" E 36.16'
EC13	40.00'	5.91'	S 64°22'41" W 5.90'
EC15	51.00'	37.51'	S 0°19'17" E 36.67'
EC25	20.00'	24.78'	N 24°38'54" E 23.23'
EC29	76.00'	63.49'	N 45°19'17" W 61.66'
EC35	4.00'	9.23'	N 45°19'17" W 7.31'
EC36	4.00'	3.14'	S 46°06'34" W 3.06'
EC37	4.00'	4.57'	N 33°39'35" W 4.33'
EC38	4.00'	3.14'	N 1°06'34" E 3.06'

EASEMENT CURVE TABLE			
CURVE	RADIUS	LENGTH	CHORD
EC39	4.00'	3.14'	N 88°53'26" W 3.06'
EC40	14.00'	16.99'	N 33°50'25" E 15.97'
EC41	9.00'	14.14'	N 65°44'52" E 12.73'
EC42	9.00'	6.62'	S 89°40'43" W 6.47'
EC43	9.00'	14.14'	N 24°15'08" W 12.73'
EC44	9.00'	15.92'	S 72°04'09" E 13.92'
EC47	5.00'	7.85'	S 65°44'52" W 7.07'

EASEMENT LINE TABLE		
LINE	LENGTH	DIRECTION
E1	2.71'	N 21°23'26" W
E4	20.00'	N 69°15'08" W
E5	9.66'	N 66°23'26" W
E6	9.66'	S 23°36'34" W
E7	10.09'	S 68°36'34" W
E8	8.76'	N 66°23'26" W
E10	9.66'	N 23°36'34" E
E11	0.98'	N 21°23'26" W
E12	19.21'	N 68°36'34" E
E13	7.58'	S 69°15'08" E
E14	13.00'	S 20°44'52" W
E15	16.83'	N 69°15'08" W
E16	5.11'	N 20°44'52" E

ARCONA PHASE 8.3
EASEMENT LEGEND

▨	PROPOSED STORMWATER MANAGEMENT / DRAINAGE EASEMENT
▨	PROPOSED SANITARY SEWER EASEMENT
▨	PROPOSED WATERLINE EASEMENT
▨	PROPOSED COMBINED UTILITY AND ACCESS EASEMENT
▒	PROPOSED SNOW EASEMENT
▒	PROPOSED EMERGENCY ACCESS EASEMENT
▒	EXISTING EASEMENTS (OTHER)
▨	EASEMENTS TO BE EXTINGUISHED

(N-1) BUCKEYE 24-INCH HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE EASEMENT DESCRIBED IN MISC. BOK 127, PAGE 115
THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENTS GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

(N-2) UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICE, LLC EASEMENT DESCRIBED IN MISC. BOOK 81, PAGE 561
THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENT GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

NOTES:

1. EXISTING UTILITY AND UNDERGROUND PIPELINE EASEMENTS ARE SHOWN ON THE EA SHEETS.
2. SEE EA-1 FOR ALL PROPOSED EASEMENTS AND EXISTING EASEMENTS TO BE EXTINGUISHED, RELOCATED OR ENLARGED.
3. SEE EA-2 THRU EA-4 FOR EASEMENT DETAILS AND TABLES.
4. THE ACTUAL LIMITS OF THE UTILITY EASEMENTS WITHIN THE AREAS ON THIS PLAN NOTED AS "COMBINED UTILITY AND ACCESS EASEMENTS" ARE SPECIFICALLY SET FORTH IN THE GRANTS OF THOSE EASEMENTS TO THE INDIVIDUAL UTILITY PROVIDER, WHICH GRANTS ARE BEING RECORDED SEPARATE FROM THIS PLAN.

Sheet Number:
12 of 40
Project Number:
15-100-34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

EASEMENT PLAN - WATER, SNOW, & EMERGENCY ACCESS EASEMENTS

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: G. MITCHELL KING PE, PLS	Scale: 1"=50'

0 25 50 100 150

Seal:
G. MITCHELL KING
No. SU042004-E
1/7/25

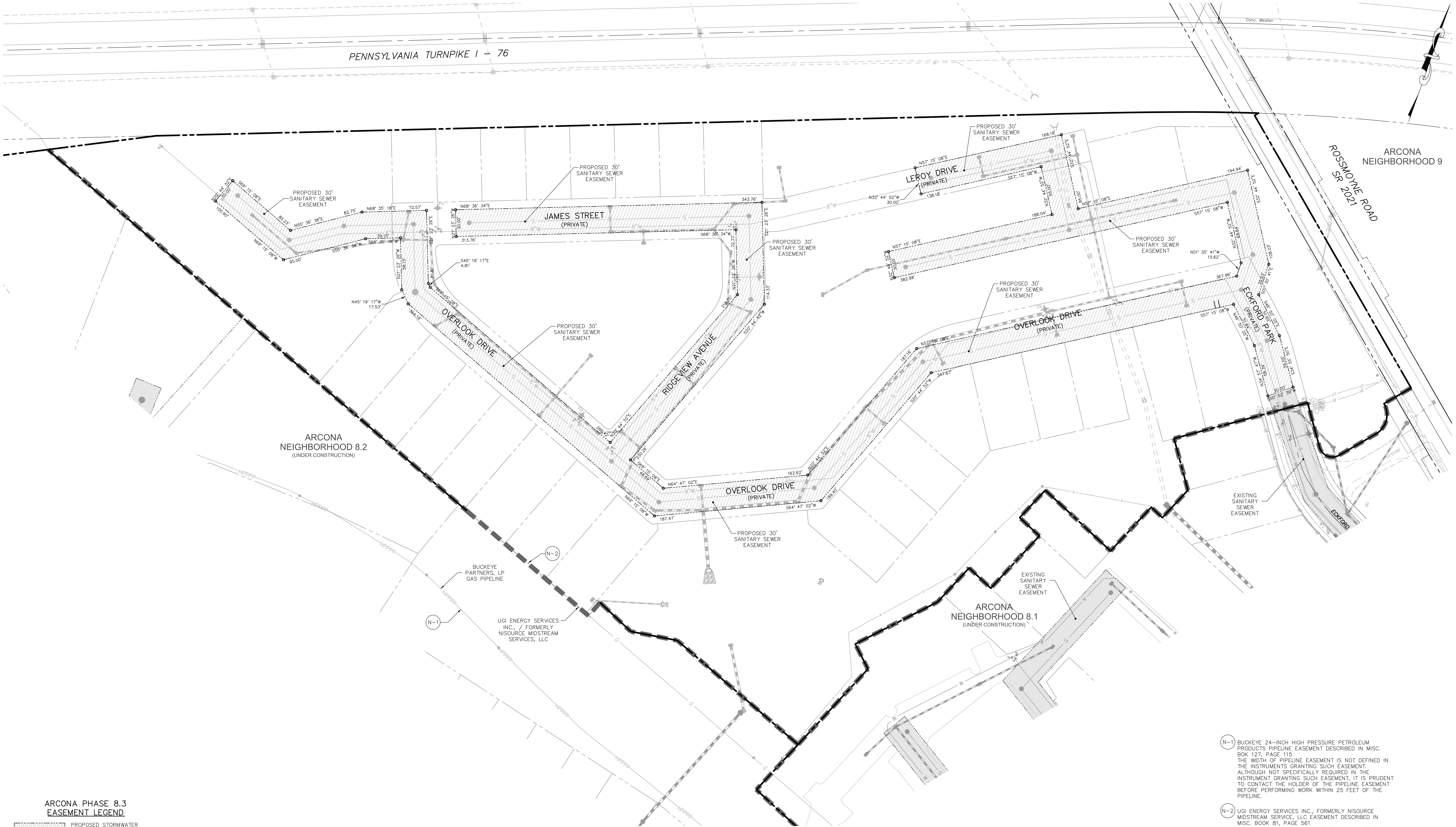
TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
EA-3

3/10/2025 9:08 AM L:\15-100-34\SHEETS\PRELIMINARY\13 EA-04.DWG

PRELIMINARY / FINAL


PENNSYLVANIA TURNPIKE I – 76
Conc. Median
ROSSMOYNE ROAD
SR 2021
ARCONA
NEIGHBORHOOD 9
LEROY DRIVE
(PRIVATE)
JAMES STREET
(PRIVATE)
RIDGEVIEW AVENUE
(PRIVATE)
OVERLOOK DRIVE
(PRIVATE)
ECKFORD PARK
(PRIVATE)
ECKFORD
PROPOSED 30' SANITARY SEWER EASEMENT
EXISTING SANITARY SEWER EASEMENT
ARCONA
NEIGHBORHOOD 8.2
(UNDER CONSTRUCTION)
ARCONA
NEIGHBORHOOD 8.1
(UNDER CONSTRUCTION)
BUCKEYE PARTNERS, LP GAS PIPELINE
UGI ENERGY SERVICES INC., / FORMERLY NISOURCE MIDSTREAM SERVICES, LLC
N-1
N-2
N68° 36' 34"E
343.76'
313.76'
S68° 38' 34"W
N68° 35' 18"E
72.57'
82.75'
N55° 36' 38"E
39.15'
S68° 35' 18"W
95.00'
N69° 15' 08"W
100.90'
S69° 15' 08"E
N57° 15' 08"E
168.18'
N32° 44' 52"W
30.00'
138.18'
S57° 15' 08"W
194.94'
188.04'
S57° 15' 08"W
382.98'
N01° 30' 41"W
15.62'
367.96'
S57° 15' 08"W
187.16'
347.67'
S20° 44' 52"W
162.62'
N64° 47' 02"E
S64° 47' 02"W
187.47'
N69° 15' 08"W
S68° 15' 08"E
N45° 19' 17"W
17.53'
S45° 19' 17"E
4.81'
364.19'
114.33'
30.00'

ARCONA PHASE 8.3
EASEMENT LEGEND

▨ PROPOSED STORMWATER MANAGEMENT / DRAINAGE EASEMENT
▨ PROPOSED SANITARY SEWER EASEMENT
▨ PROPOSED WATERLINE EASEMENT
▨ PROPOSED COMBINED UTILITY AND ACCESS EASEMENT
▨ PROPOSED SNOW EASEMENT
▨ PROPOSED EMERGENCY ACCESS EASEMENT
▨ EXISTING EASEMENTS (OTHER)
▨ EASEMENTS TO BE EXTINGUISHED

(N-1) BUCKEYE 24-INCH HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE EASEMENT DESCRIBED IN MISC. BOK 127, PAGE 115
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(N-2) UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICE, LLC EASEMENT DESCRIBED IN MISC. BOOK 81, PAGE 561
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Sheet Number:
13 of 40

Project Number:
15–100–34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

EASEMENT PLAN – SANITARY SEWER EASEMENTS

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: G. MITCHELL KING PE, PLS	Scale: 1"=50'

0 25 50 100 150

Seal:
G. MITCHELL KING
No. SU42004-E
1/7/25

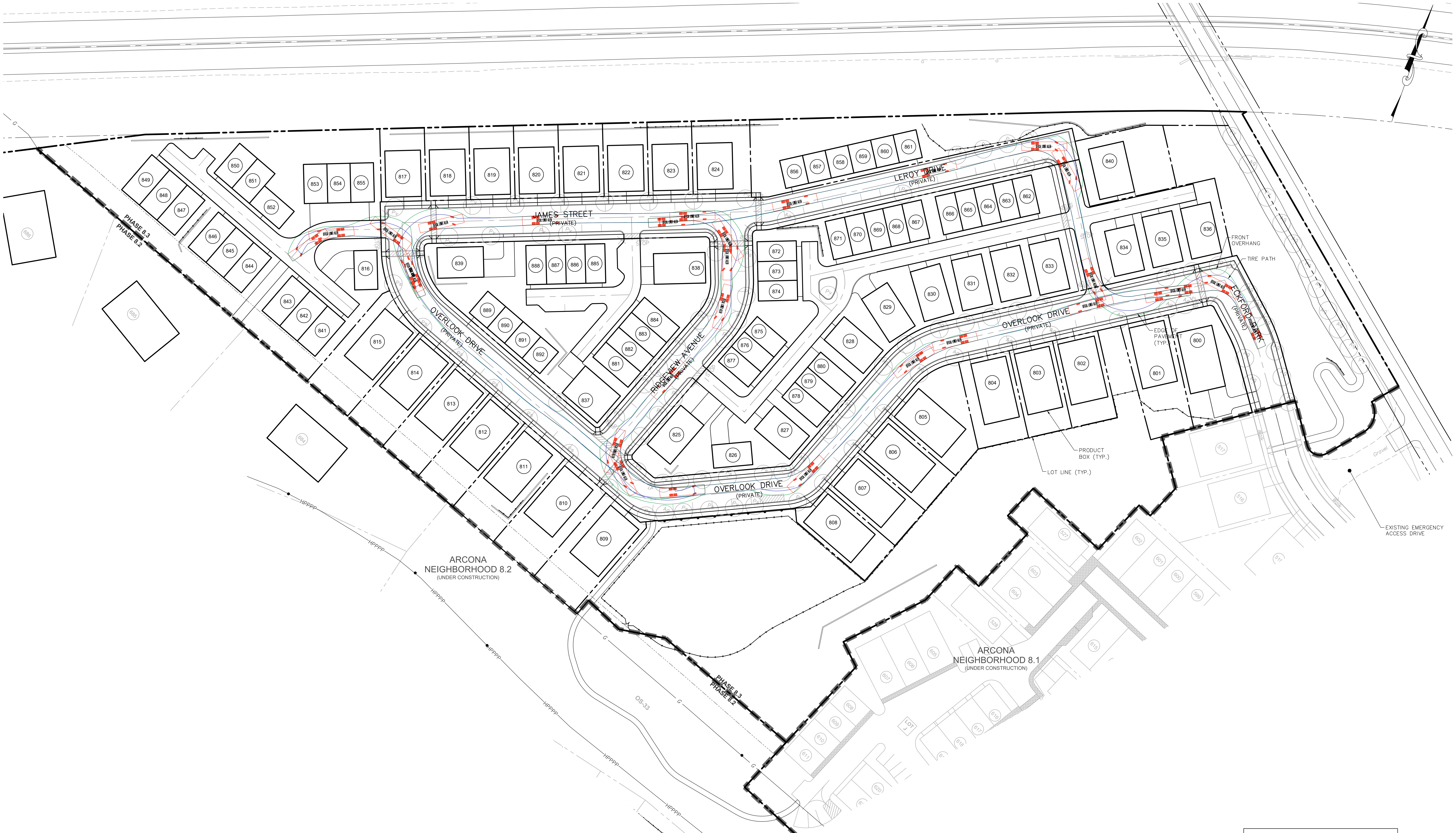
TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
EA–4

1/21/2025 12:48 PM L:\15–100–34\SHEETS\PRELIMINARY\13 EA–04.DWG

PRELIMINARY / FINAL


JAMES STREET
(PRIVATE)
LEROY DRIVE
(PRIVATE)
OVERLOOK DRIVE
(PRIVATE)
RIDGEVIEW AVENUE
(PRIVATE)
ECKFORD PARK
(PRIVATE)
FRONT OVERHANG
TIRE PATH
EDGE OF PAVEMENT (TYP.)
PRODUCT BOX (TYP.)
LOT LINE (TYP.)
EXISTING EMERGENCY ACCESS DRIVE
PHASE 8.3
PHASE 8.2
ARCONA NEIGHBORHOOD 8.2
(UNDER CONSTRUCTION)
ARCONA NEIGHBORHOOD 8.1
(UNDER CONSTRUCTION)
OFFICAL LOWER ALLEN
HPPPP
G
OS-33
Gravel
800
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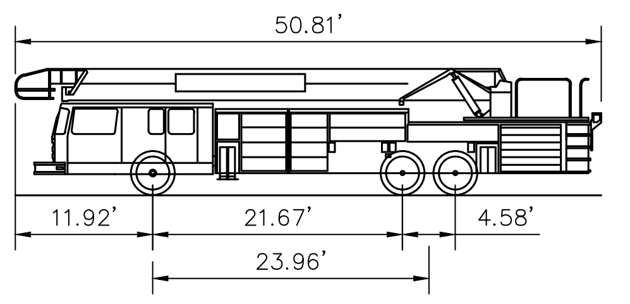
890
891
892

TURNING MOVEMENT LEGEND (COLOR)

🟦	= VEHICLE WHEELS PATH
🟥	= VEHICLE BODY
🟩	= VEHICLE BODY OVERHANG


50.81'
11.92'
21.67'
4.58'
23.96'

OFFICIAL LOWER ALLEN FIRE TRUCK
(LONGEST LADDER)

Overall Length	50.840 ft
Overall Width	9.880 ft
Overall Body Height	10.947 ft
Min Body Ground Clearance	1.377 ft
Track Width	9.880 ft
Lock-to-lock time	6.00 s
Max Wheel Angle	40.00°

NOTE:

STREET TREES AND SIGNS ARE SHOWN IN GRAY-SCALE ON THIS SHEET FOR CLARIFICATION. SEE SHEET LA-1 FOR STREET TREE AND SIGN LOCATIONS.

Sheet Number:
14 of 40

Project Number:
15-100-34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

TURNING MOVEMENTS PLAN

Project Manager:
DAVID B. KEGERIZE PE

Drafting:
D TURNER

Project Engineer:
G. MITCHELL KING PE, PLS

Checked by:
–

Project Surveyor:
MATTHEW D. DENNIS PE, PLS

Scale:
1"=50'

0 25 50 100 150

Seal:
G. MITCHELL KING
No. SU42004-E
1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
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DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
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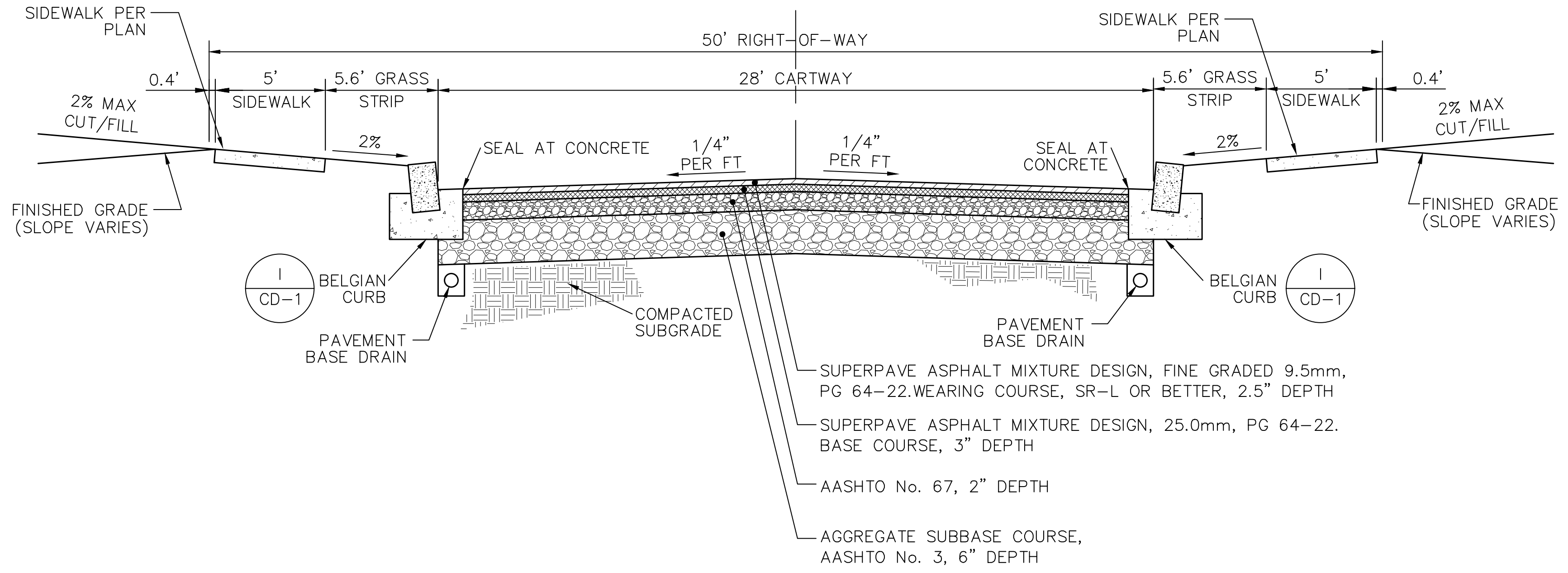
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
TM-1

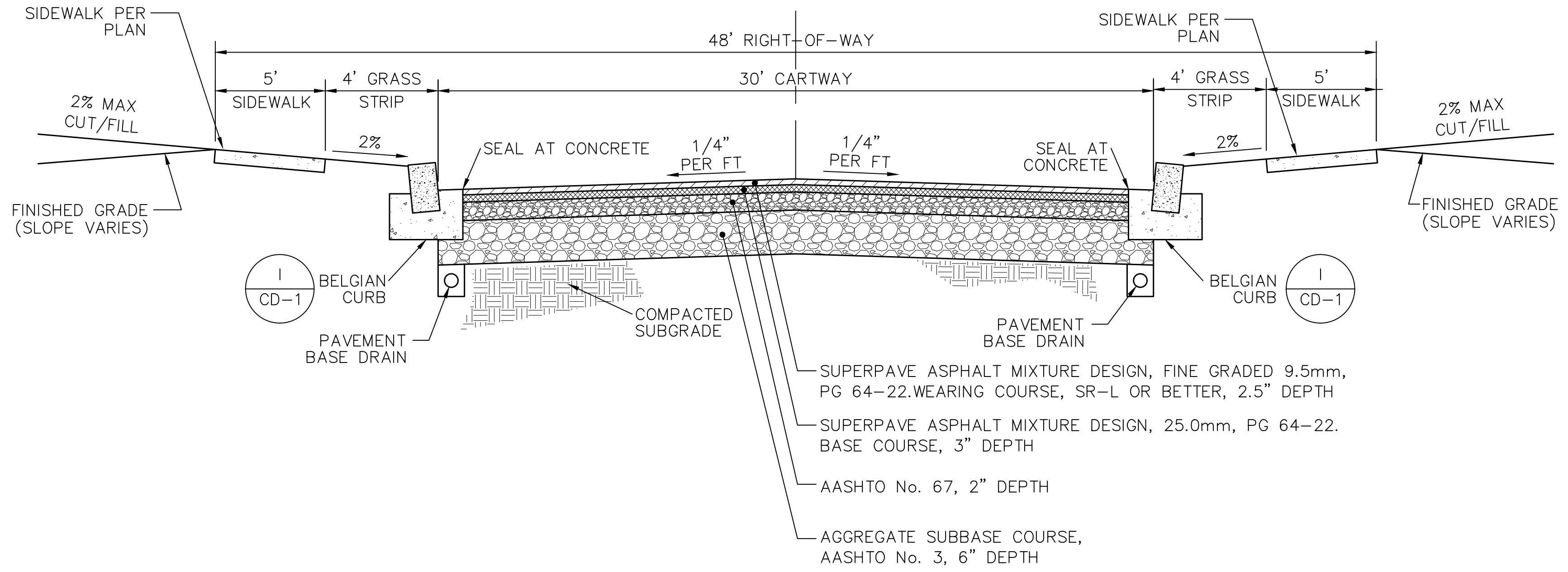
3/7/2025 4:07 PM L:\15-100-34\SHEETS\PRELIMINARY\14 TM-01.DWG

PRELIMINARY / FINAL


SIDEWALK PER PLAN
50' RIGHT-OF-WAY
0.4'
5' SIDEWALK
5.6' GRASS STRIP
28' CARTWAY
2% MAX CUT/FILL
2%
SEAL AT CONCRETE
1/4" PER FT
FINISHED GRADE (SLOPE VARIES)
I CD-1
BELGIAN CURB
PAVEMENT BASE DRAIN
COMPACTED SUBGRADE
SUPERPAVE ASPHALT MIXTURE DESIGN, FINE GRADED 9.5mm, PG 64-22.WEARING COURSE, SR-L OR BETTER, 2.5" DEPTH
SUPERPAVE ASPHALT MIXTURE DESIGN, 25.0mm, PG 64-22. BASE COURSE, 3" DEPTH
AASHTO No. 67, 2" DEPTH
AGGREGATE SUBBASE COURSE, AASHTO No. 3, 6" DEPTH

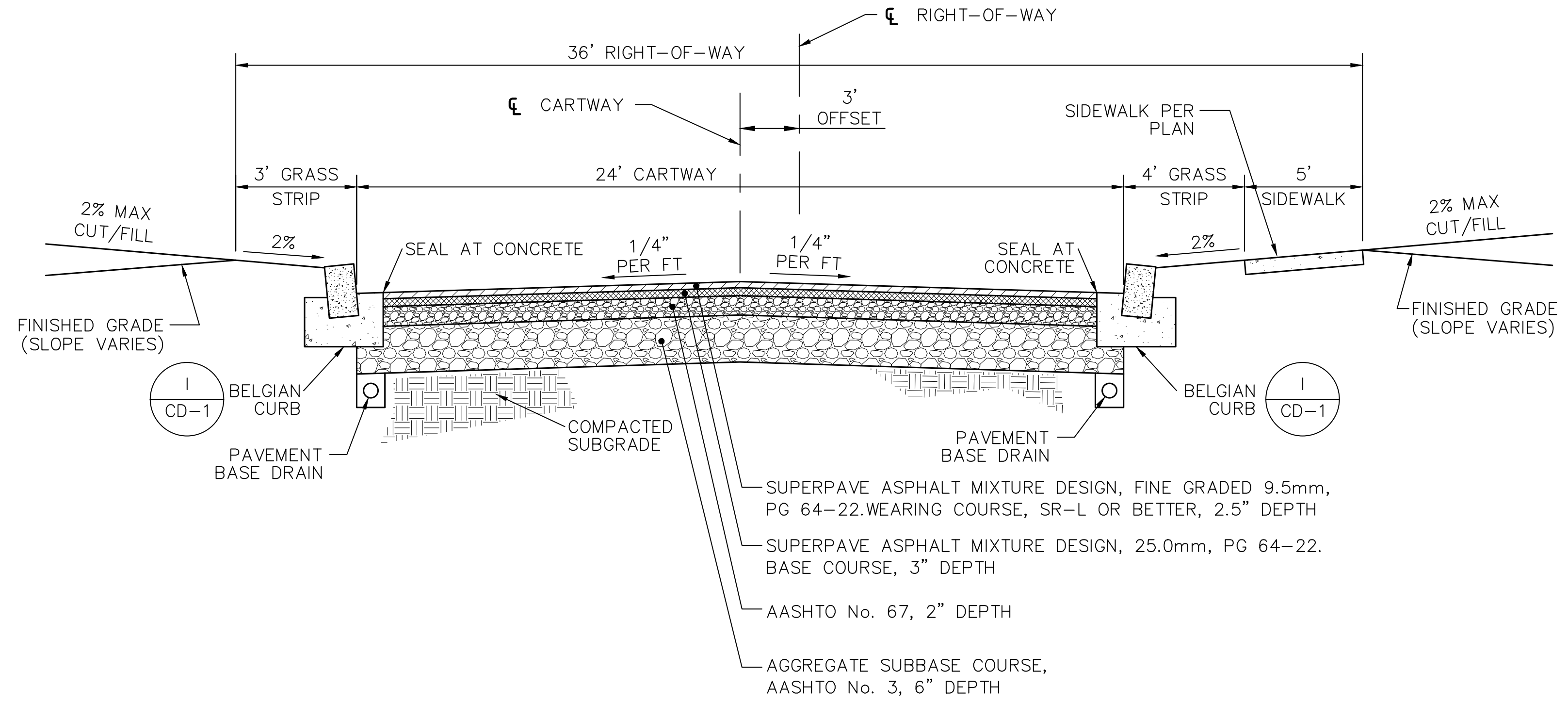
A CD-1 TYPICAL PRIVATE STREET (28' CARTWAY)

NOT TO SCALE


SIDEWALK PER PLAN
48' RIGHT-OF-WAY
5' SIDEWALK
4' GRASS STRIP
30' CARTWAY
2% MAX CUT/FILL
2%
SEAL AT CONCRETE
1/4" PER FT
FINISHED GRADE (SLOPE VARIES)
I CD-1
BELGIAN CURB
PAVEMENT BASE DRAIN
COMPACTED SUBGRADE
SUPERPAVE ASPHALT MIXTURE DESIGN, FINE GRADED 9.5mm, PG 64-22.WEARING COURSE, SR-L OR BETTER, 2.5" DEPTH
SUPERPAVE ASPHALT MIXTURE DESIGN, 25.0mm, PG 64-22. BASE COURSE, 3" DEPTH
AASHTO No. 67, 2" DEPTH
AGGREGATE SUBBASE COURSE, AASHTO No. 3, 6" DEPTH

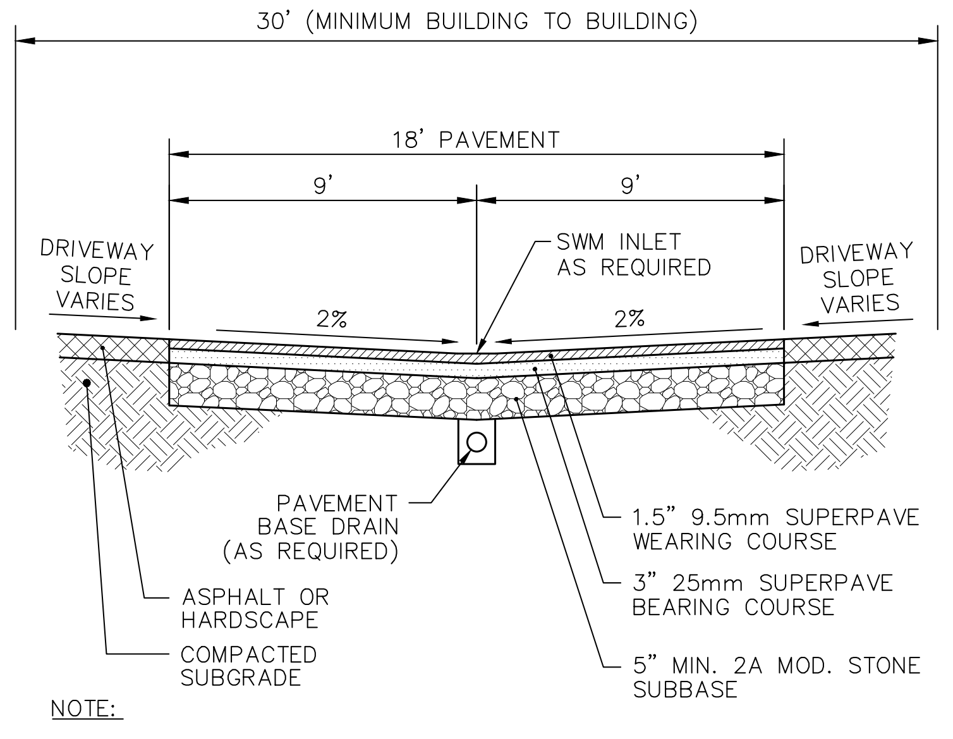
B CD-1 TYPICAL PRIVATE STREET (30' CARTWAY)

NOT TO SCALE


℄ RIGHT-OF-WAY
36' RIGHT-OF-WAY
℄ CARTWAY
3' OFFSET
SIDEWALK PER PLAN
3' GRASS STRIP
24' CARTWAY
4' GRASS STRIP
5' SIDEWALK
2% MAX CUT/FILL
2%
SEAL AT CONCRETE
1/4" PER FT
FINISHED GRADE (SLOPE VARIES)
I CD-1
BELGIAN CURB
PAVEMENT BASE DRAIN
COMPACTED SUBGRADE
SUPERPAVE ASPHALT MIXTURE DESIGN, FINE GRADED 9.5mm, PG 64-22.WEARING COURSE, SR-L OR BETTER, 2.5" DEPTH
SUPERPAVE ASPHALT MIXTURE DESIGN, 25.0mm, PG 64-22. BASE COURSE, 3" DEPTH
AASHTO No. 67, 2" DEPTH
AGGREGATE SUBBASE COURSE, AASHTO No. 3, 6" DEPTH

C CD-1 TYPICAL PRIVATE STREET (24' CARTWAY)

NOT TO SCALE

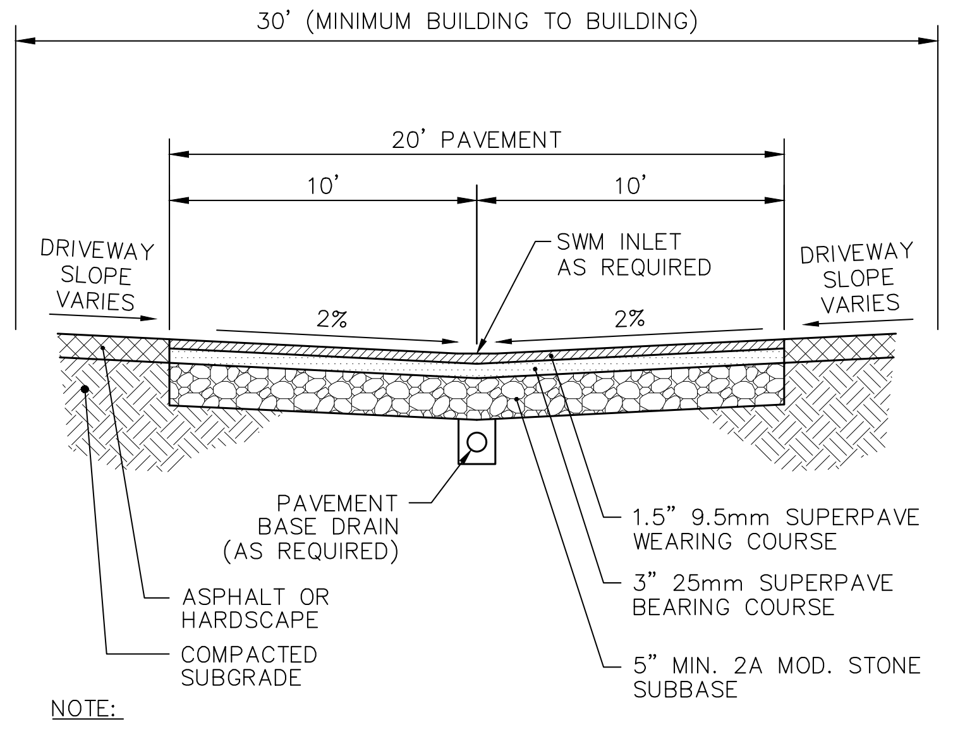

30' (MINIMUM BUILDING TO BUILDING)
18' PAVEMENT
9'
9'
DRIVEWAY SLOPE VARIES
SWM INLET AS REQUIRED
2%
2%
PAVEMENT BASE DRAIN (AS REQUIRED)
1.5" 9.5mm SUPERPAVE WEARING COURSE
3" 25mm SUPERPAVE BEARING COURSE
ASPHALT OR HARDSCAPE
COMPACTED SUBGRADE
5" MIN. 2A MOD. STONE SUBBASE

NOTE:

1. DRIVEWAYS TO INDIVIDUAL GARAGES WILL BE ASPHALT OR EQUIVALENT HARDSCAPE.
2. DRIVEWAYS & DRIVES WILL NOT BE DEDICATED TO THE TOWNSHIP.

D CD-1 TYPICAL 18' PRIVATE DRIVE CROSS SECTION

NOT TO SCALE


30' (MINIMUM BUILDING TO BUILDING)
20' PAVEMENT
10'
10'
DRIVEWAY SLOPE VARIES
SWM INLET AS REQUIRED
2%
2%
PAVEMENT BASE DRAIN (AS REQUIRED)
1.5" 9.5mm SUPERPAVE WEARING COURSE
3" 25mm SUPERPAVE BEARING COURSE
ASPHALT OR HARDSCAPE
COMPACTED SUBGRADE
5" MIN. 2A MOD. STONE SUBBASE

NOTE:

1. DRIVEWAYS TO INDIVIDUAL GARAGES WILL BE ASPHALT OR EQUIVALENT HARDSCAPE.
2. DRIVEWAYS & DRIVES WILL NOT BE DEDICATED TO THE TOWNSHIP.

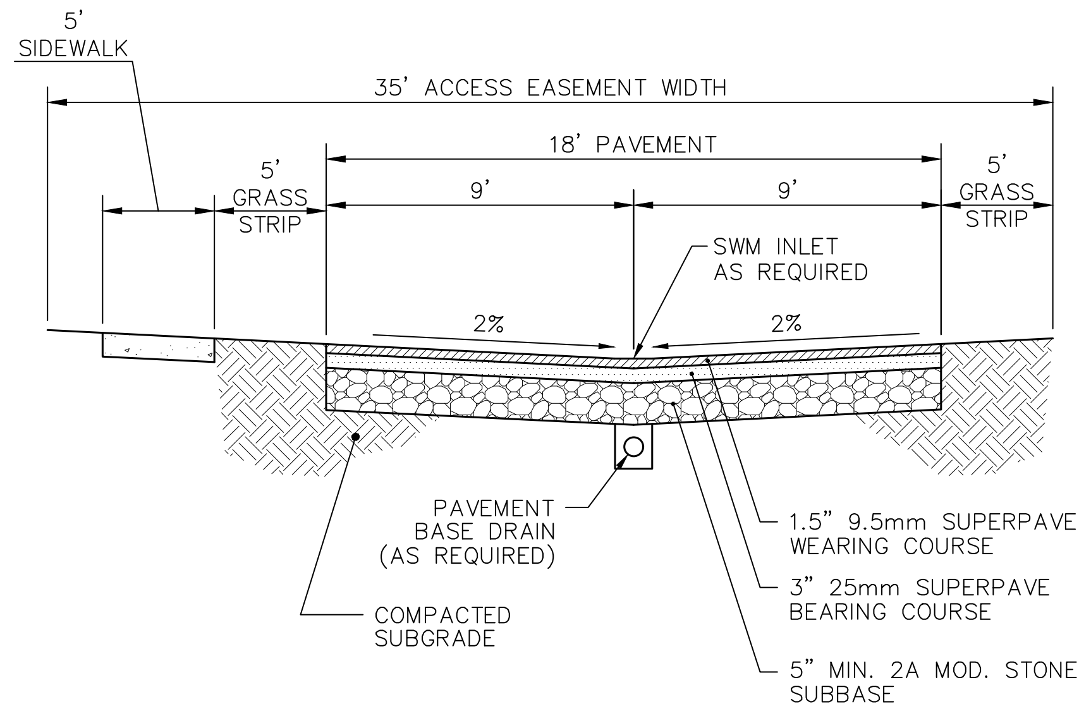
F CD-1 TYPICAL 20' PRIVATE DRIVE CROSS SECTION

NOT TO SCALE

STREET SECTION NOTES:

1. WEARING COURSE PLACED IN TWO LIFTS, 1-INCH DEPTH FIRST LIFT, 1.5" DEPTH FINAL LIFT.
2. FIRST WEARING COURSE LIFT MUST BE PLACED WITHIN 30 DAYS OF PLACING BASE COURSE.
3. SECOND WEARING COURSE LIFT MUST NOT BE PLACED PRIOR TO OCCUPANCY OF 90% OF UNITS USING THE STREET FOR ACCESS.
4. SUPERPAVE MIX DESIGN BASED ON ESALs MUST BE APPROVED BY THE MUNICIPALITY PRIOR TO CONSTRUCTION.
5. DEPTH OF BASE COURSE AND AGGREGATE SUBBASE ARE SHOWN AS THE MINIMUM FOR RESIDENTIAL CUL-DE-SAC AND LOCAL ACCESS STREETS WITH ADT LESS THAN 400. ACTUAL DEPTHS FOR OTHERS STREETS MUST BE DETERMINED BY A PAVEMENT DESIGN APPROVED BY THE MUNICIPALITY.
6. 6" STANDARD REVEAL (SEE D/CD-1) 8" SUMP CONDITION AT INLETS.
7. PAVEMENT BASE DRAINS ARE REQUIRED ON ALL STREETS. PAVEMENT BASE DRAINS SHALL CONFORM TO PENNDOT PUBLICATION 408 AND SHALL BE PROVIDED WITH A SUITABLE OUTLET.

TYPICAL STREET CROSS SECTIONS	
STREET NAME	**SECTION**
Eckford Park	A
Overlook Drive	B
James Street	B
Ridgeview Avenue	B
Leroy Drive	C
Crimson Way	D
Crest Way	D
Dixon Way	D
Layton Way	E
Terrebonne Way	F

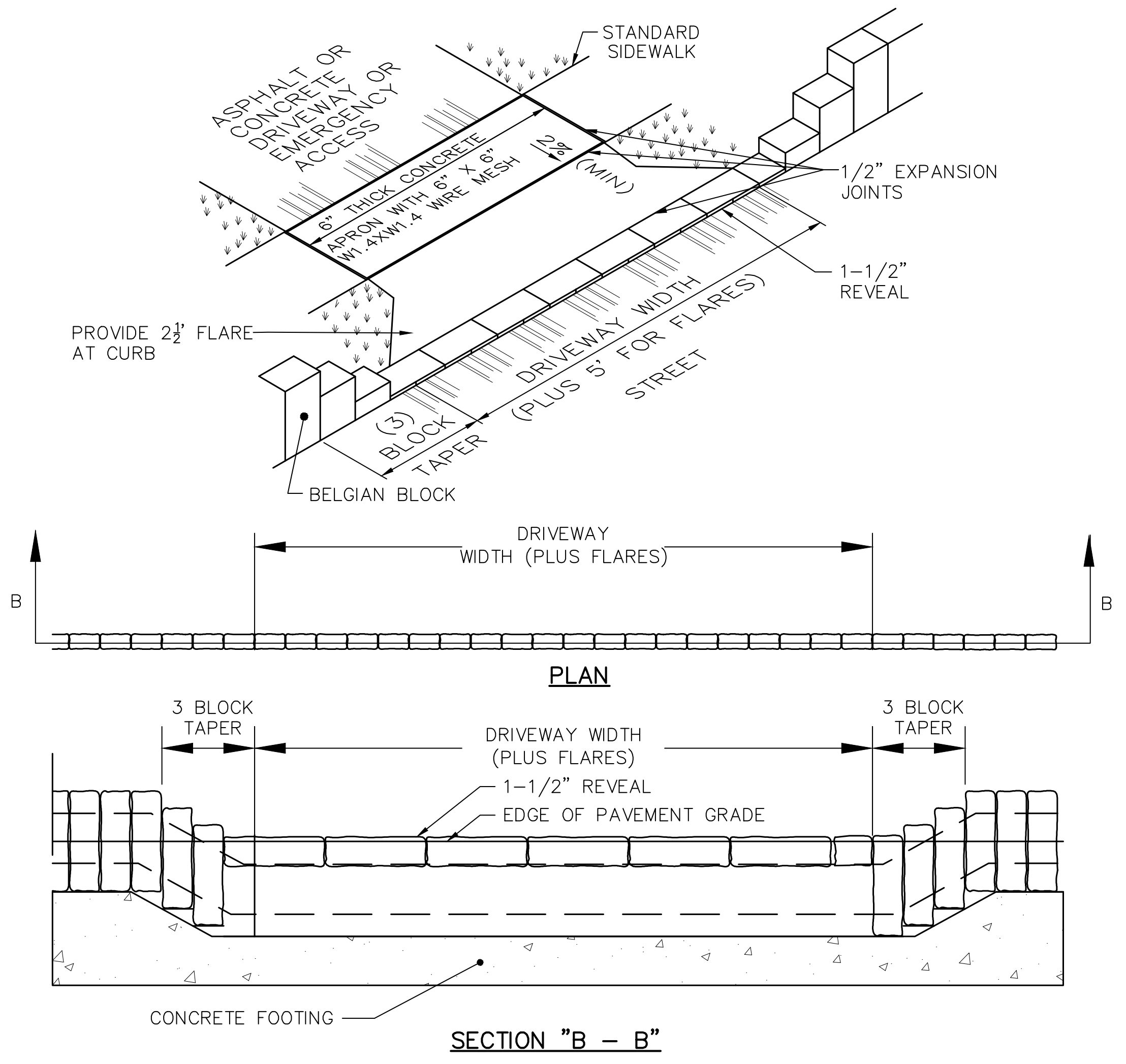

5' SIDEWALK
35' ACCESS EASEMENT WIDTH
18' PAVEMENT
5' GRASS STRIP
9'
9'
5' GRASS STRIP
SWM INLET AS REQUIRED
2%
2%
PAVEMENT BASE DRAIN (AS REQUIRED)
COMPACTED SUBGRADE
1.5" 9.5mm SUPERPAVE WEARING COURSE
3" 25mm SUPERPAVE BEARING COURSE
5" MIN. 2A MOD. STONE SUBBASE

NOTE:

1. THIS DRIVE WILL NOT BE DEDICATED TO THE TOWNSHIP.

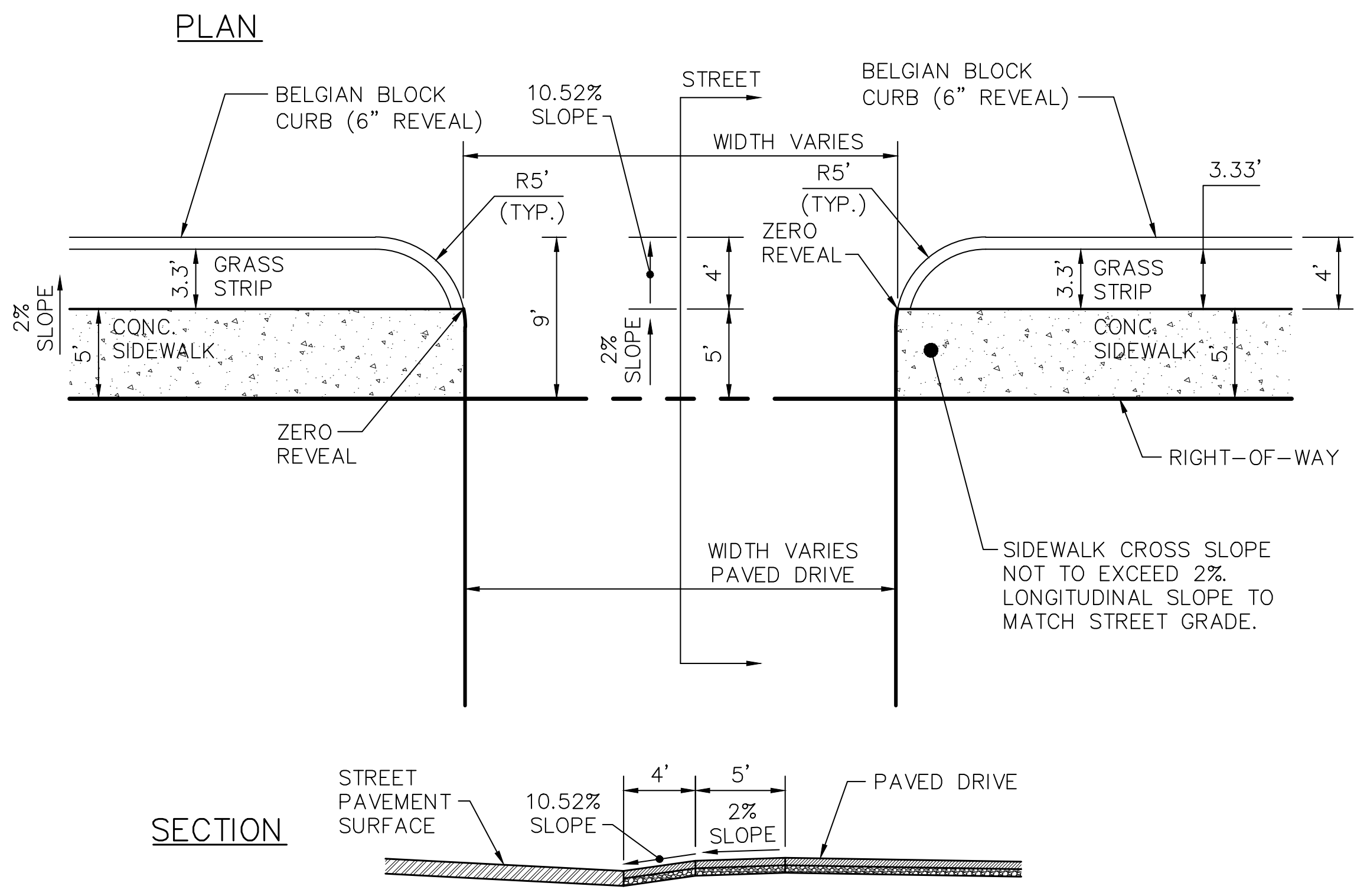
E CD-1 18' PRIVATE DRIVE CROSS SECTION

NOT TO SCALE


ASPHALT OR CONCRETE DRIVEWAY OR EMERGENCY ACCESS
STANDARD SIDEWALK
6" THICK CONCRETE APRON WITH 6" X 6" W1.4XW1.4 WIRE MESH
2% (MIN)
1/2" EXPANSION JOINTS
1-1/2" REVEAL
PROVIDE 2½' FLARE AT CURB
(3) BLOCK TAPER
DRIVEWAY WIDTH (PLUS 5' FOR FLARES)
STREET
BELGIAN BLOCK
DRIVEWAY WIDTH (PLUS FLARES)
B
B
PLAN
3 BLOCK TAPER
DRIVEWAY WIDTH (PLUS FLARES)
3 BLOCK TAPER
1-1/2" REVEAL
EDGE OF PAVEMENT GRADE
CONCRETE FOOTING
SECTION "B – B"

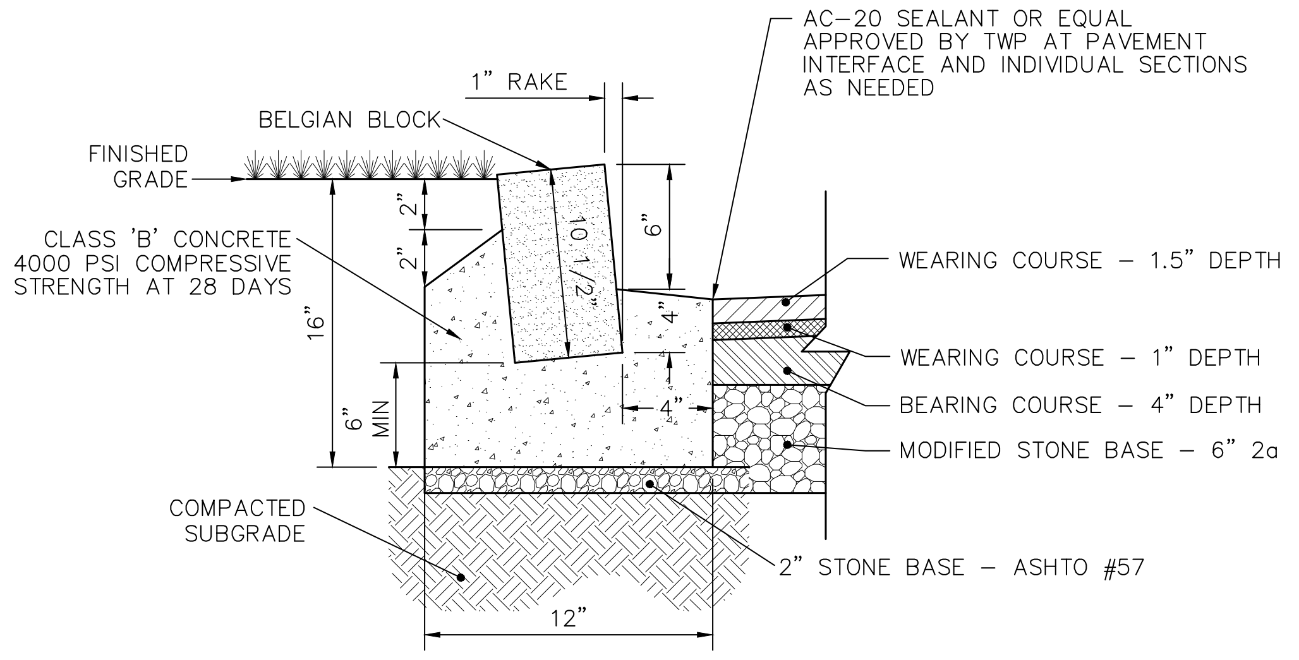
G CD-1 DRIVEWAY CONNECTIONS TO STREET

NOT TO SCALE


PLAN
BELGIAN BLOCK CURB (6" REVEAL)
10.52% SLOPE
STREET
BELGIAN BLOCK CURB (6" REVEAL)
WIDTH VARIES
R5' (TYP.)
R5' (TYP.)
3.33'
ZERO REVEAL
3.3' GRASS STRIP
2% SLOPE
5' CONC. SIDEWALK
9'
2% SLOPE
4'
5'
3.3' GRASS STRIP
CONC. SIDEWALK 5'
4'
ZERO REVEAL
RIGHT-OF-WAY
WIDTH VARIES PAVED DRIVE
SIDEWALK CROSS SLOPE NOT TO EXCEED 2%. LONGITUDINAL SLOPE TO MATCH STREET GRADE.
SECTION
STREET PAVEMENT SURFACE
10.52% SLOPE
4'
5'
2% SLOPE
PAVED DRIVE

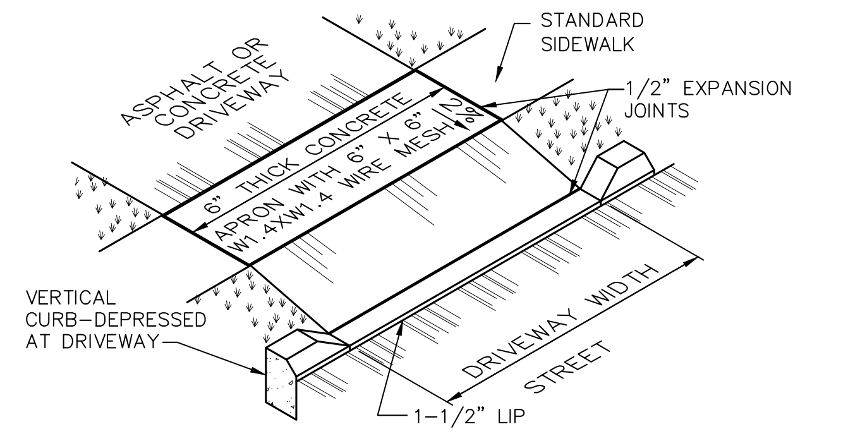
K CD-1 PRIVATE DRIVE TO PRIVATE STREET CONNECTION

NOT TO SCALE


AC-20 SEALANT OR EQUAL APPROVED BY TWP AT PAVEMENT INTERFACE AND INDIVIDUAL SECTIONS AS NEEDED
1" RAKE
BELGIAN BLOCK
FINISHED GRADE
CLASS 'B' CONCRETE 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS
2"
2"
10 1/2"
6"
4"
16"
6" MIN
4"
WEARING COURSE – 1.5" DEPTH
WEARING COURSE – 1" DEPTH
BEARING COURSE – 4" DEPTH
MODIFIED STONE BASE – 6" 2a
COMPACTED SUBGRADE
2" STONE BASE – ASHTO #57
12"

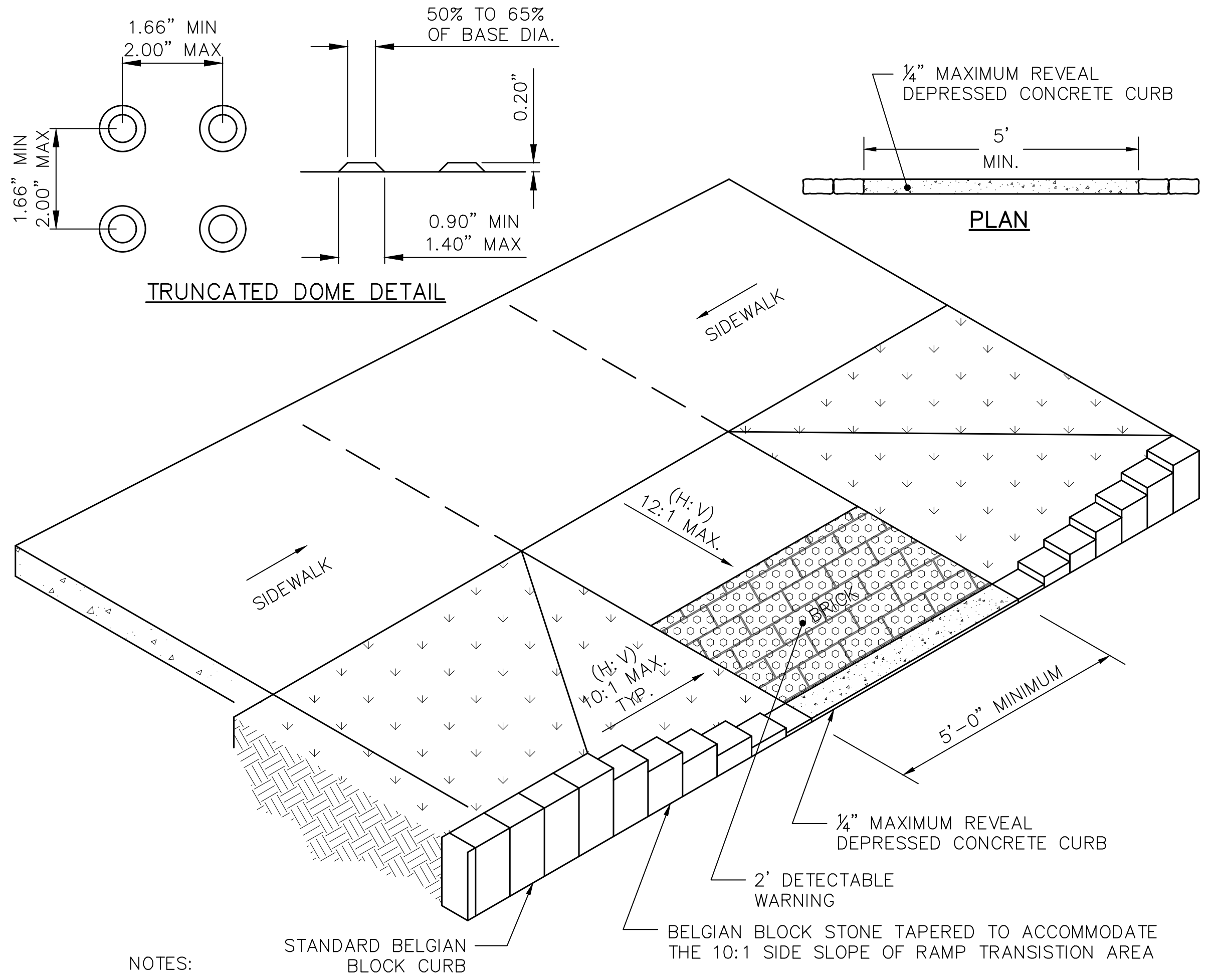
M CD-1 BELGIAN BLOCK CURB

NOT TO SCALE


ASPHALT OR CONCRETE DRIVEWAY
STANDARD SIDEWALK
6" THICK CONCRETE APRON WITH 6" X 6" W1.4XW1.4 WIRE MESH
2%
1/2" EXPANSION JOINTS
VERTICAL CURB-DEPRESSED AT DRIVEWAY
DRIVEWAY WIDTH
STREET
1-1/2" LIP

H CD-1 DRIVEWAY APRON WITH SIDEWALK

NOT TO SCALE

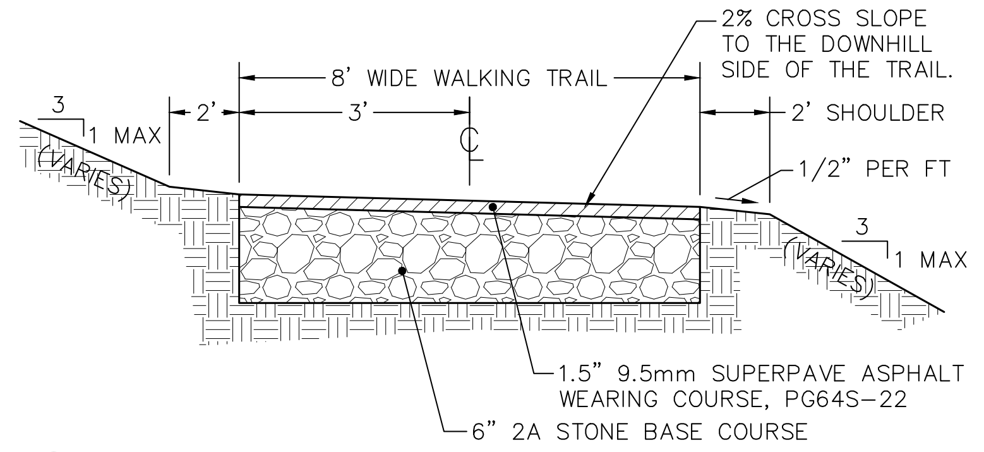

1.66" MIN 2.00" MAX
1.66" MIN 2.00" MAX
50% TO 65% OF BASE DIA.
0.20"
0.90" MIN 1.40" MAX
TRUNCATED DOME DETAIL
¼" MAXIMUM REVEAL DEPRESSED CONCRETE CURB
5' MIN.
PLAN
SIDEWALK
SIDEWALK
(H:V) 12:1 MAX.
(H:V) 10:1 MAX. TYP.
BRICK
5'-0" MINIMUM
¼" MAXIMUM REVEAL DEPRESSED CONCRETE CURB
2' DETECTABLE WARNING
BELGIAN BLOCK STONE TAPERED TO ACCOMMODATE THE 10:1 SIDE SLOPE OF RAMP TRANSISTION AREA
STANDARD BELGIAN BLOCK CURB

NOTES:

1. ALL ACCESSIBLE FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH 1994 ADA STANDARDS FOR ACCESSIBLE DESIGN, DEPARTMENT OF JUSTICE 28 CFR, PART 36, AS AMENDED.
2. ALL RAMPS SHALL BE CONSTRUCTED WITH DETECTABLE WARNINGS (A DISTINCTIVE SURFACE PATTERN BY DOMES DETECTABLE BY CANE OR UNDERFOOT) MEETING ADAAG 4.29.2 (1991) REQUIREMENTS.

J CD-1 ACCESSIBLE CURB RAMP DETAIL

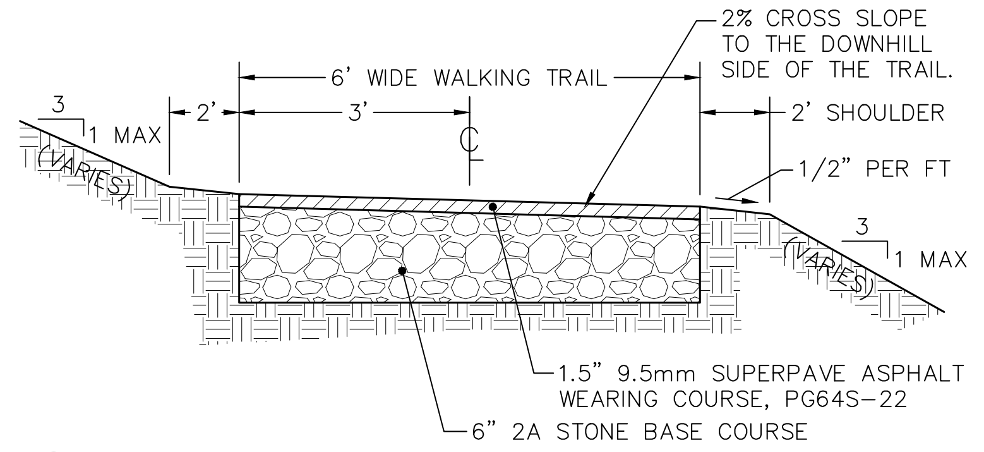
NOT TO SCALE


2% CROSS SLOPE TO THE DOWNHILL SIDE OF THE TRAIL.
8' WIDE WALKING TRAIL
2'
3'
℄
2' SHOULDER
1/2" PER FT
3 1 MAX (VARIES)
3 1 MAX (VARIES)
1.5" 9.5mm SUPERPAVE ASPHALT WEARING COURSE, PG64S-22
6" 2A STONE BASE COURSE

L CD-1 TRAIL SECTION (8')

NOT TO SCALE

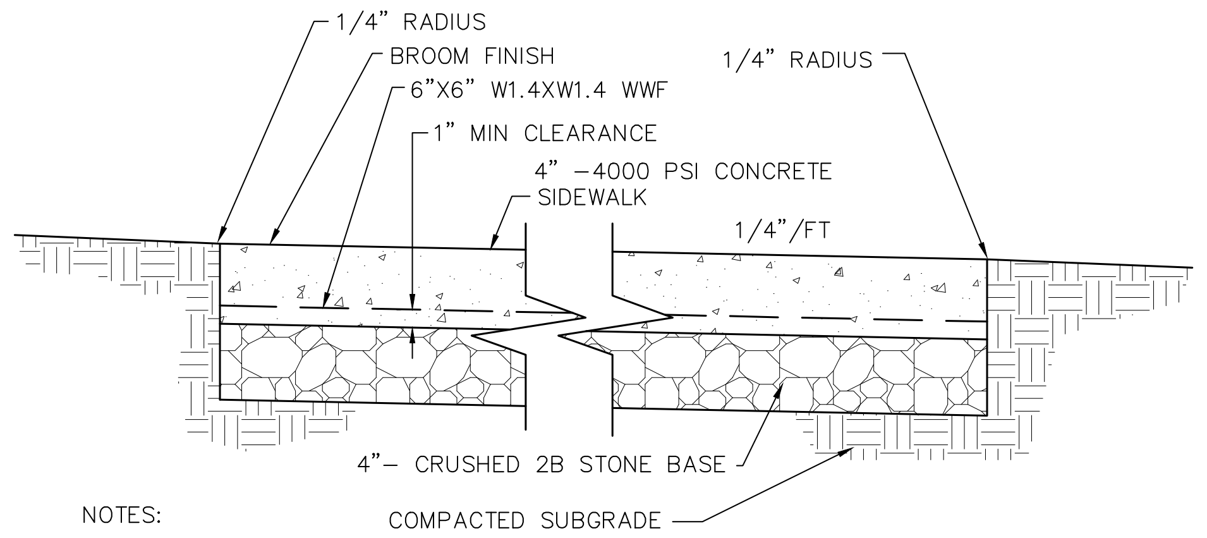
* 6" 2A STONE BASE ONLY, AT THE DEVELOPERS OPTION.


2% CROSS SLOPE TO THE DOWNHILL SIDE OF THE TRAIL.
6' WIDE WALKING TRAIL
2'
3'
℄
2' SHOULDER
1/2" PER FT
3 1 MAX (VARIES)
3 1 MAX (VARIES)
1.5" 9.5mm SUPERPAVE ASPHALT WEARING COURSE, PG64S-22
6" 2A STONE BASE COURSE

R CD-1 TRAIL SECTION (6')

NOT TO SCALE

* 6" 2A STONE BASE ONLY, AT THE DEVELOPERS OPTION.

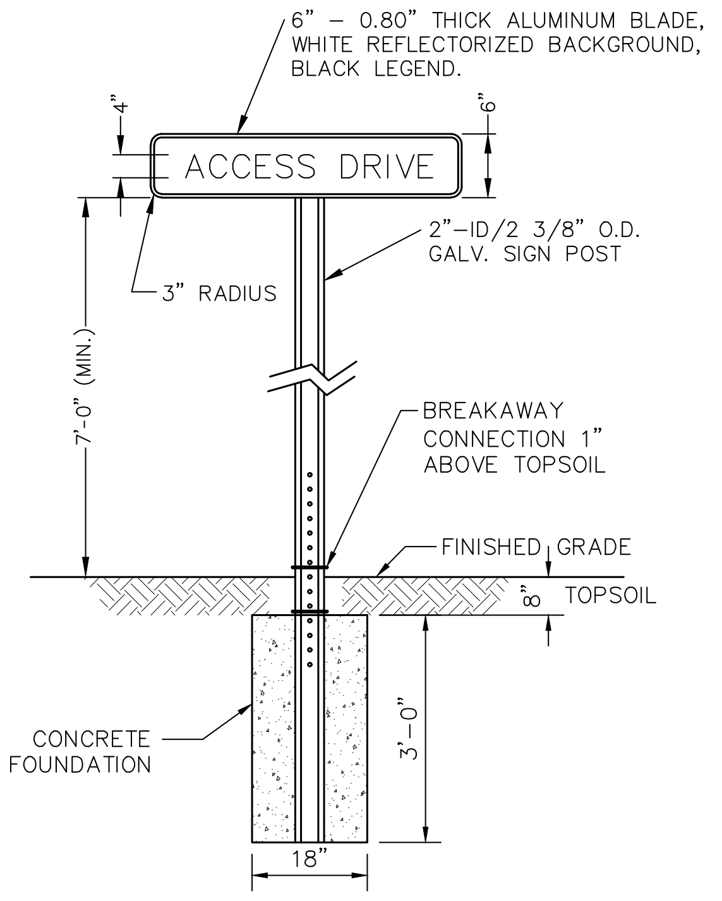

1/4" RADIUS
BROOM FINISH
6"X6" W1.4XW1.4 WWF
1" MIN CLEARANCE
4" -4000 PSI CONCRETE SIDEWALK
1/4" RADIUS
1/4"/FT
4"- CRUSHED 2B STONE BASE
COMPACTED SUBGRADE

NOTES:

1. EXPANSION JOINTS LOCATED AT 20' O.C.
2. TOOLED JOINTS LOCATED AT 5' O.C.
3. SIDEWALK IS TO BE LIGHT BROOM FINISHED IN THE DIRECTION OF SIDEWALK WIDTH.

N CD-1 CONCRETE SIDEWALK DETAIL

NOT TO SCALE

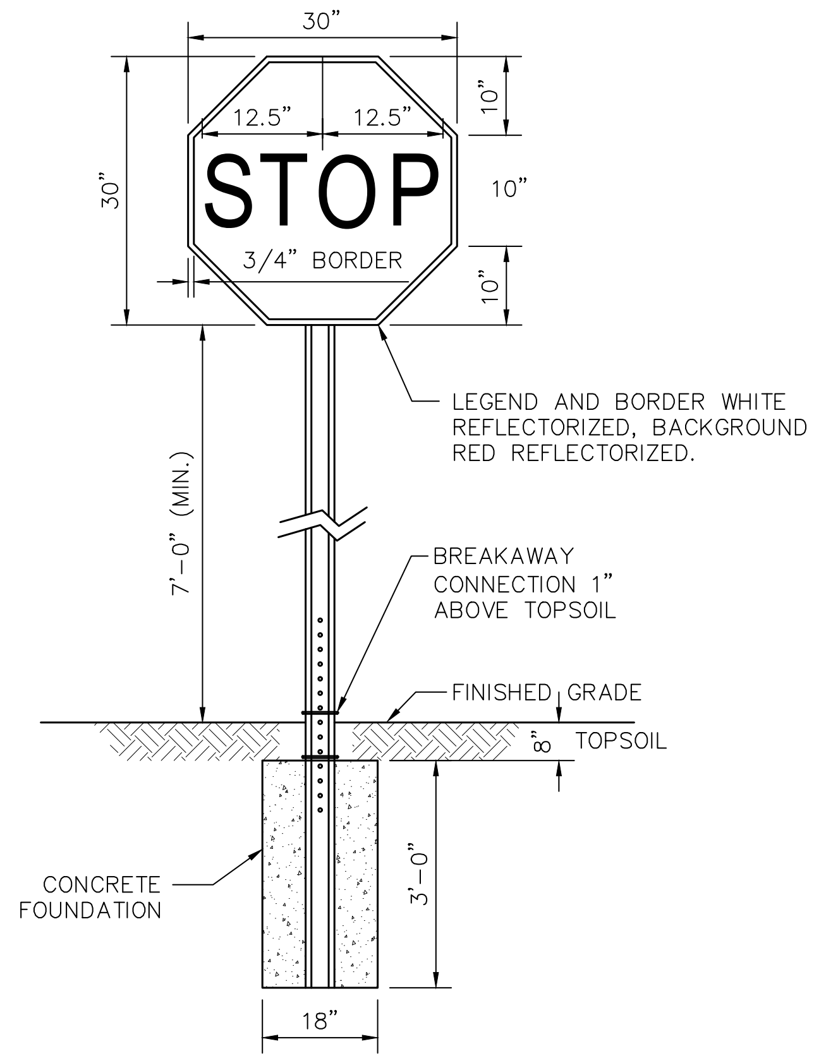

6" – 0.80" THICK ALUMINUM BLADE, WHITE REFLECTORIZED BACKGROUND, BLACK LEGEND.
4"
6"
ACCESS DRIVE
3" RADIUS
2"-ID/2 3/8" O.D. GALV. SIGN POST
7'-0" (MIN.)
BREAKAWAY CONNECTION 1" ABOVE TOPSOIL
FINISHED GRADE
8" TOPSOIL
CONCRETE FOUNDATION
3'-0"
18"

NOTE:

THIS IS A TYPICAL SIGN DETAIL FOR REFERENCE PURPOSES ONLY. THE FINAL SIGN DESIGN WILL BE COORDINATED TO BE DECORATIVE AND COMPLIMENTARY TO THE ARCHITECTURE OF THE DEVELOPMENT AND STILL MEET TOWNSHIP STANDARDS.

O CD-1 TYPICAL SIGN DETAIL

NOT TO SCALE


30"
12.5"
12.5"
10"
30"
STOP
10"
3/4" BORDER
10"
LEGEND AND BORDER WHITE REFLECTORIZED, BACKGROUND RED REFLECTORIZED.
7'-0" (MIN.)
BREAKAWAY CONNECTION 1" ABOVE TOPSOIL
FINISHED GRADE
8" TOPSOIL
CONCRETE FOUNDATION
3'-0"
18"

P CD-1 TYPICAL STOP SIGN DETAIL

NOT TO SCALE

SIGN NOTES:

- ALL SIGNS SHALL MEET PENNDOT PUBLICATION 408 STANDARDS.
- ALL SIGNS SHALL MEET THE REQUIREMENTS OF SECTION 220-132.2, 220-245, 220-252, AND 220-254 OF THE TOWNSHIP ZONING ORDINANCE.

Sheet Number:
15 of 40

Project Number:
15-100-34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

CONSTRUCTION DETAILS

Drafting: W ALLEN
Checked by: –
Scale: AS NOTED
Project Manager: DAVID B. KEGERIZE PE
Project Engineer: G. MITCHELL KING PE, PLS
Project Surveyor: MATTHEW D. DENNIS PE, PLS

Seal:
G. MITCHELL KING
ENGINEER
No. PE36683-E
1/7/25

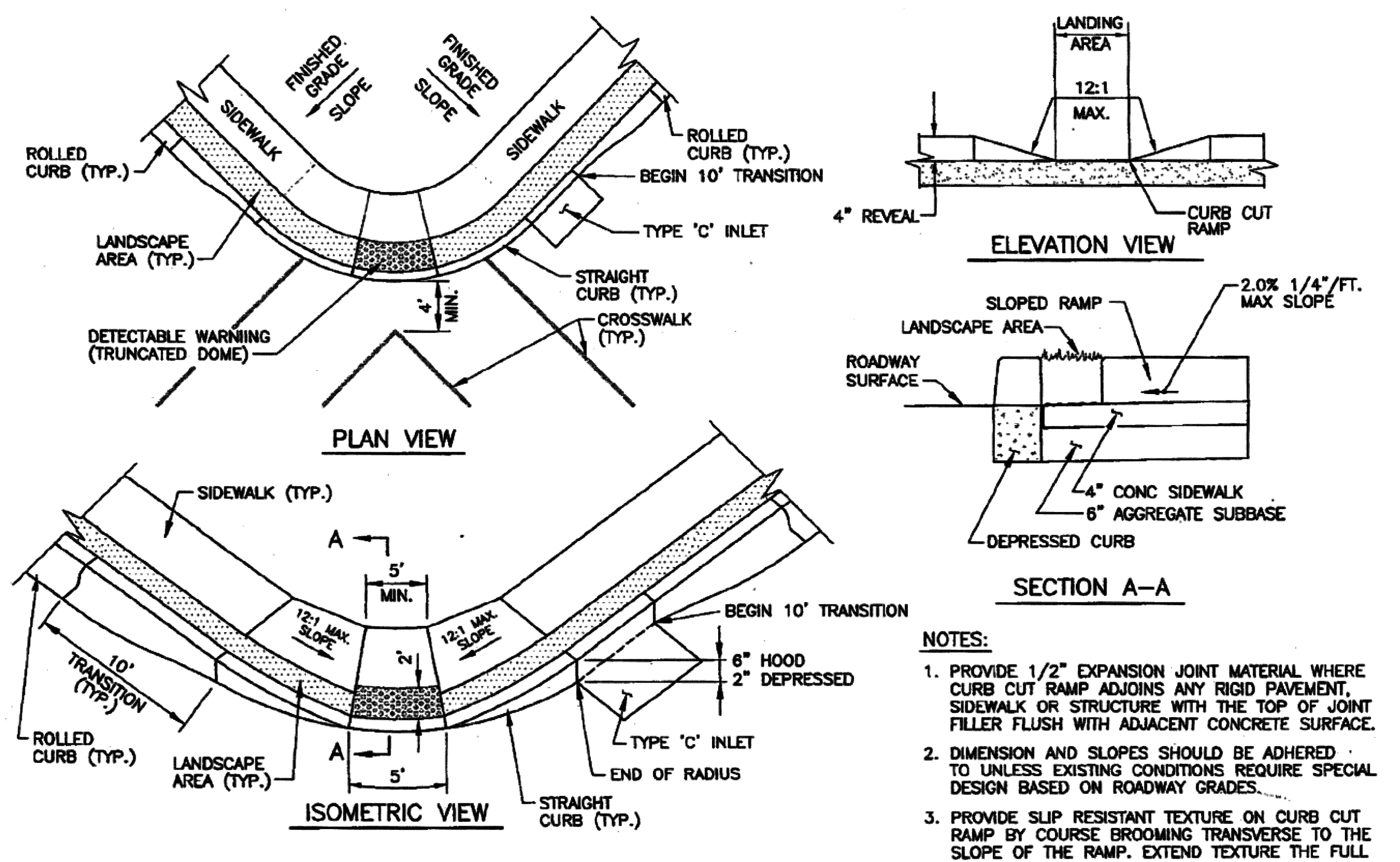
TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
CD-1

1/21/2025 12:50 PM L:\15-100-34\SHEETS\PRELIMINARY\15 CD-01.DWG

PRELIMINARY / FINAL


ROLLED CURB (TYP.)
FINISHED GRADE SLOPE
SIDEWALK
FINISHED GRADE SLOPE
SIDEWALK
ROLLED CURB (TYP.)
BEGIN 10' TRANSITION
TYPE 'C' INLET
LANDSCAPE AREA (TYP.)
STRAIGHT CURB (TYP.)
4' MIN.
CROSSWALK (TYP.)
DETECTABLE WARNIING (TRUNCATED DOME)
PLAN VIEW
LANDING AREA
12:1 MAX.
4" REVEAL
CURB CUT RAMP
ELEVATION VIEW
SLOPED RAMP
2.0% 1/4"/FT. MAX SLOPE
LANDSCAPE AREA
ROADWAY SURFACE
4" CONC SIDEWALK
6" AGGREGATE SUBBASE
DEPRESSED CURB
SECTION A–A
SIDEWALK (TYP.)
A
5' MIN.
12:1 MAX. SLOPE
12:1 MAX. SLOPE
2'
10' TRANSITION (TYP.)
BEGIN 10' TRANSITION
6" HOOD
2" DEPRESSED
ROLLED CURB (TYP.)
LANDSCAPE AREA (TYP.)
A
5'
TYPE 'C' INLET
END OF RADIUS
STRAIGHT CURB (TYP.)
ISOMETRIC VIEW

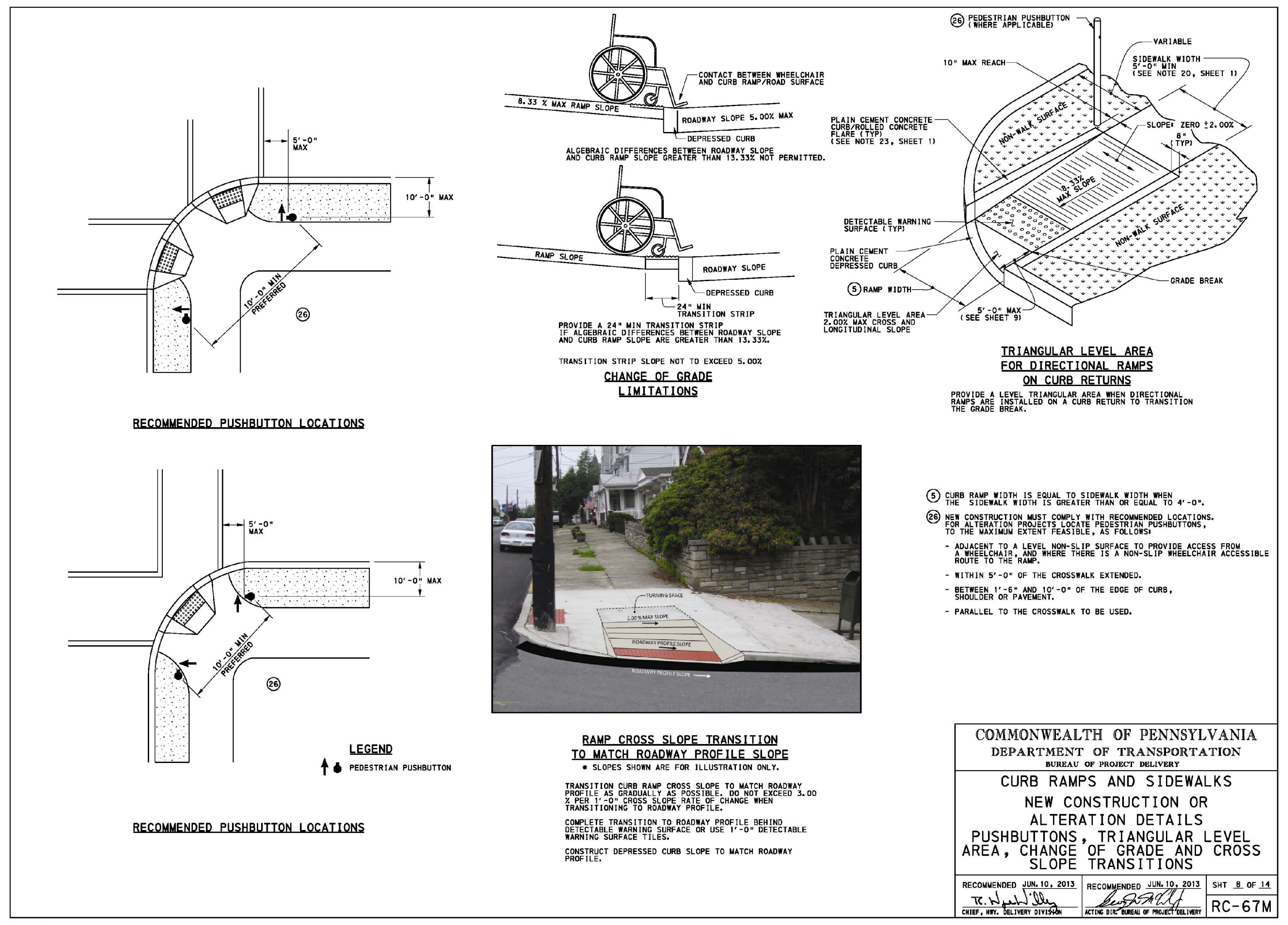
NOTES:

1. PROVIDE 1/2" EXPANSION JOINT MATERIAL WHERE CURB CUT RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
2. DIMENSION AND SLOPES SHOULD BE ADHERED TO UNLESS EXISTING CONDITIONS REQUIRE SPECIAL DESIGN BASED ON ROADWAY GRADES.
3. PROVIDE SLIP RESISTANT TEXTURE ON CURB CUT RAMP BY COURSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB CUT RAMP INCLUDING FLARED SIDE RAMPS.

* NOTES:

1. ARMORCLASS DETECTABLE WARNING PANELS AS MANUFACTURED BY ARMOR CAST PRODUCT COMPANY OR EQUAL.
2. THE CONTRACTOR IS RESPONSIBLE TO INSTALL CURB CUT RAMPS, SIDEWALK AND DRIVEWAY APRONS TO THE LATEST ADA OR PENNDOT STANDARDS AT THE TIME OF CONSTRUCTION.

A / CD–2
CURB RAMP DETAILS
NOT TO SCALE


5'-0" MAX
10'-0" MAX
10'-0" MIN PREFERRED
㉖
8.33 % MAX RAMP SLOPE
CONTACT BETWEEN WHEELCHAIR AND CURB RAMP/ROAD SURFACE
ROADWAY SLOPE 5.00% MAX
DEPRESSED CURB
RAMP SLOPE
ROADWAY SLOPE
DEPRESSED CURB
24" MIN TRANSITION STRIP
㉖ PEDESTRIAN PUSHBUTTON (WHERE APPLICABLE)
10" MAX REACH
VARIABLE
SIDEWALK WIDTH 5'-0" MIN (SEE NOTE 20, SHEET 1)
PLAIN CEMENT CONCRETE CURB/ROLLED CONCRETE FLARE (TYP) (SEE NOTE 23, SHEET 1)
NON-WALK SURFACE
SLOPE: ZERO ±2.00%
8" (TYP)
8.33% MAX SLOPE
DETECTABLE WARNING SURFACE (TYP)
PLAIN CEMENT CONCRETE DEPRESSED CURB
NON-WALK SURFACE
⑤ RAMP WIDTH
GRADE BREAK
TRIANGULAR LEVEL AREA 2.00% MAX CROSS AND LONGITUDINAL SLOPE
5'-0" MAX (SEE SHEET 9)
TURNING SPACE
2.00 % MAX SLOPE
ROADWAY PROFILE SLOPE
ROADWAY PROFILE SLOPE
5'-0" MAX
10'-0" MAX
10'-0" MIN PREFERRED
㉖

RECOMMENDED PUSHBUTTON LOCATIONS

ALGEBRAIC DIFFERENCES BETWEEN ROADWAY SLOPE AND CURB RAMP SLOPE GREATER THAN 13.33% NOT PERMITTED.

PROVIDE A 24" MIN TRANSITION STRIP IF ALGEBRAIC DIFFERENCES BETWEEN ROADWAY SLOPE AND CURB RAMP SLOPE ARE GREATER THAN 13.33%.

TRANSITION STRIP SLOPE NOT TO EXCEED 5.00%

CHANGE OF GRADE LIMITATIONS

TRIANGULAR LEVEL AREA FOR DIRECTIONAL RAMPS ON CURB RETURNS

PROVIDE A LEVEL TRIANGULAR AREA WHEN DIRECTIONAL RAMPS ARE INSTALLED ON A CURB RETURN TO TRANSITION THE GRADE BREAK.

⑤ CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE SIDEWALK WIDTH IS GREATER THAN OR EQUAL TO 4'-0".

㉖ NEW CONSTRUCTION MUST COMPLY WITH RECOMMENDED LOCATIONS. FOR ALTERATION PROJECTS LOCATE PEDESTRIAN PUSHBUTTONS, TO THE MAXIMUM EXTENT FEASIBLE, AS FOLLOWS:

- ADJACENT TO A LEVEL NON-SLIP SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS A NON-SLIP WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
- WITHIN 5'-0" OF THE CROSSWALK EXTENDED.
- BETWEEN 1'-6" AND 10'-0" OF THE EDGE OF CURB, SHOULDER OR PAVEMENT.
- PARALLEL TO THE CROSSWALK TO BE USED.

RECOMMENDED PUSHBUTTON LOCATIONS

LEGEND

PEDESTRIAN PUSHBUTTON

RAMP CROSS SLOPE TRANSITION TO MATCH ROADWAY PROFILE SLOPE

* SLOPES SHOWN ARE FOR ILLUSTRATION ONLY.

TRANSITION CURB RAMP CROSS SLOPE TO MATCH ROADWAY PROFILE AS GRADUALLY AS POSSIBLE. DO NOT EXCEED 3.00 % PER 1'-0" CROSS SLOPE RATE OF CHANGE WHEN TRANSITIONING TO ROADWAY PROFILE.

COMPLETE TRANSITION TO ROADWAY PROFILE BEHIND DETECTABLE WARNING SURFACE OR USE 1'-0" DETECTABLE WARNING SURFACE TILES.

CONSTRUCT DEPRESSED CURB SLOPE TO MATCH ROADWAY PROFILE.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

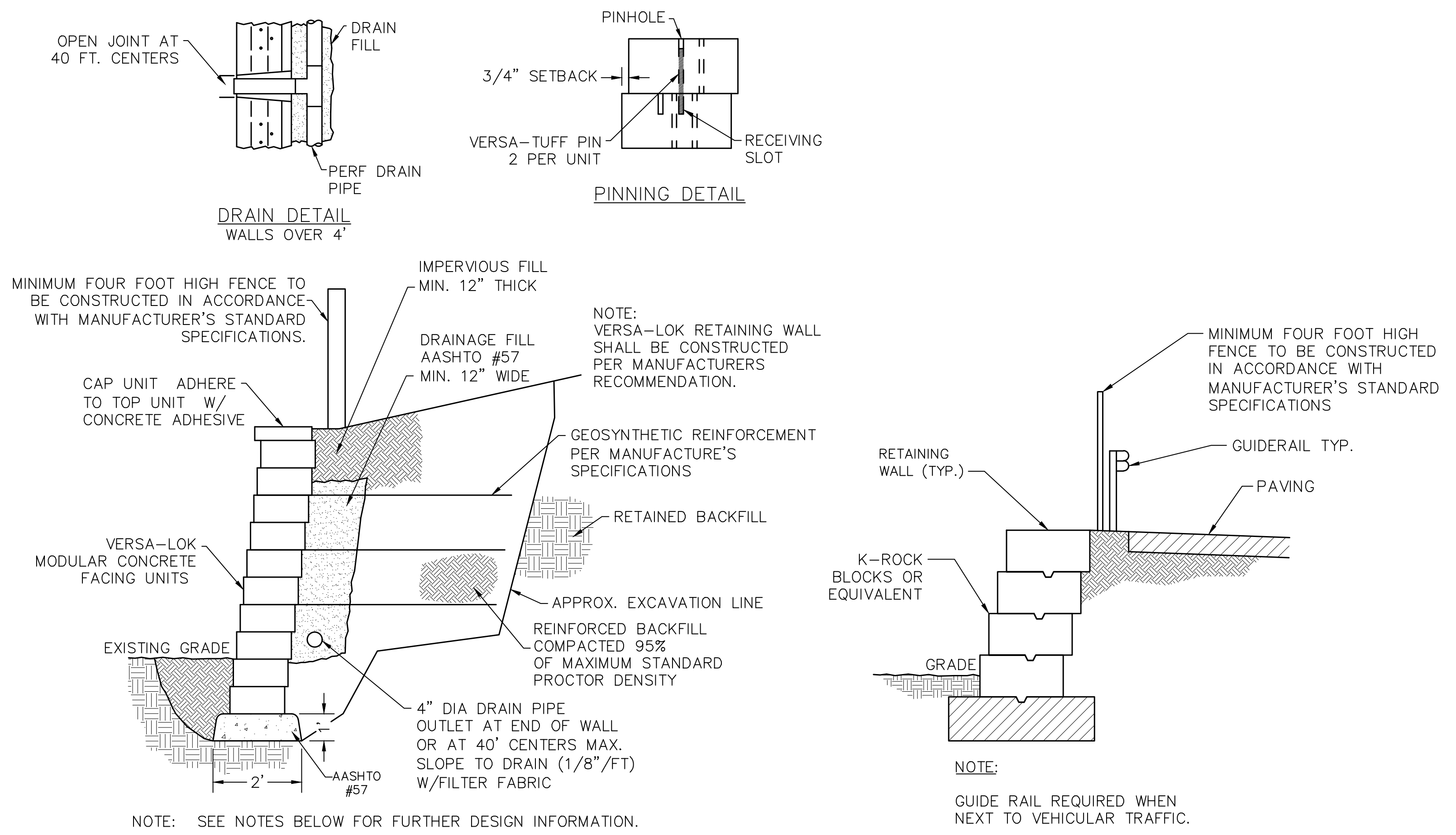
CURB RAMPS AND SIDEWALKS
NEW CONSTRUCTION OR ALTERATION DETAILS
PUSHBUTTONS, TRIANGULAR LEVEL AREA, CHANGE OF GRADE AND CROSS SLOPE TRANSITIONS

RECOMMENDED JUN. 10, 2013
CHIEF, HWY. DELIVERY DIVISION

RECOMMENDED JUN. 10, 2013
ACTING DIR. BUREAU OF PROJECT DELIVERY

SHT 8 OF 14
RC-67M

B / CD–2
CURB RAMP DETAILS
NOT TO SCALE


OPEN JOINT AT 40 FT. CENTERS
DRAIN FILL
PERF DRAIN PIPE
DRAIN DETAIL
WALLS OVER 4'
PINHOLE
3/4" SETBACK
VERSA–TUFF PIN 2 PER UNIT
RECEIVING SLOT
PINNING DETAIL
MINIMUM FOUR FOOT HIGH FENCE TO BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S STANDARD SPECIFICATIONS.
IMPERVIOUS FILL MIN. 12" THICK
DRAINAGE FILL AASHTO #57 MIN. 12" WIDE
CAP UNIT ADHERE TO TOP UNIT W/ CONCRETE ADHESIVE
GEOSYNTHETIC REINFORCEMENT PER MANUFACTURE'S SPECIFICATIONS
RETAINED BACKFILL
VERSA–LOK MODULAR CONCRETE FACING UNITS
APPROX. EXCAVATION LINE
EXISTING GRADE
REINFORCED BACKFILL COMPACTED 95% OF MAXIMUM STANDARD PROCTOR DENSITY
4" DIA DRAIN PIPE OUTLET AT END OF WALL OR AT 40' CENTERS MAX. SLOPE TO DRAIN (1/8"/FT) W/FILTER FABRIC
2'
AASHTO #57
MINIMUM FOUR FOOT HIGH FENCE TO BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S STANDARD SPECIFICATIONS
GUIDERAIL TYP.
RETAINING WALL (TYP.)
PAVING
K–ROCK BLOCKS OR EQUIVALENT
GRADE

NOTE:
VERSA–LOK RETAINING WALL SHALL BE CONSTRUCTED PER MANUFACTURERS RECOMMENDATION.

NOTE: SEE NOTES BELOW FOR FURTHER DESIGN INFORMATION.

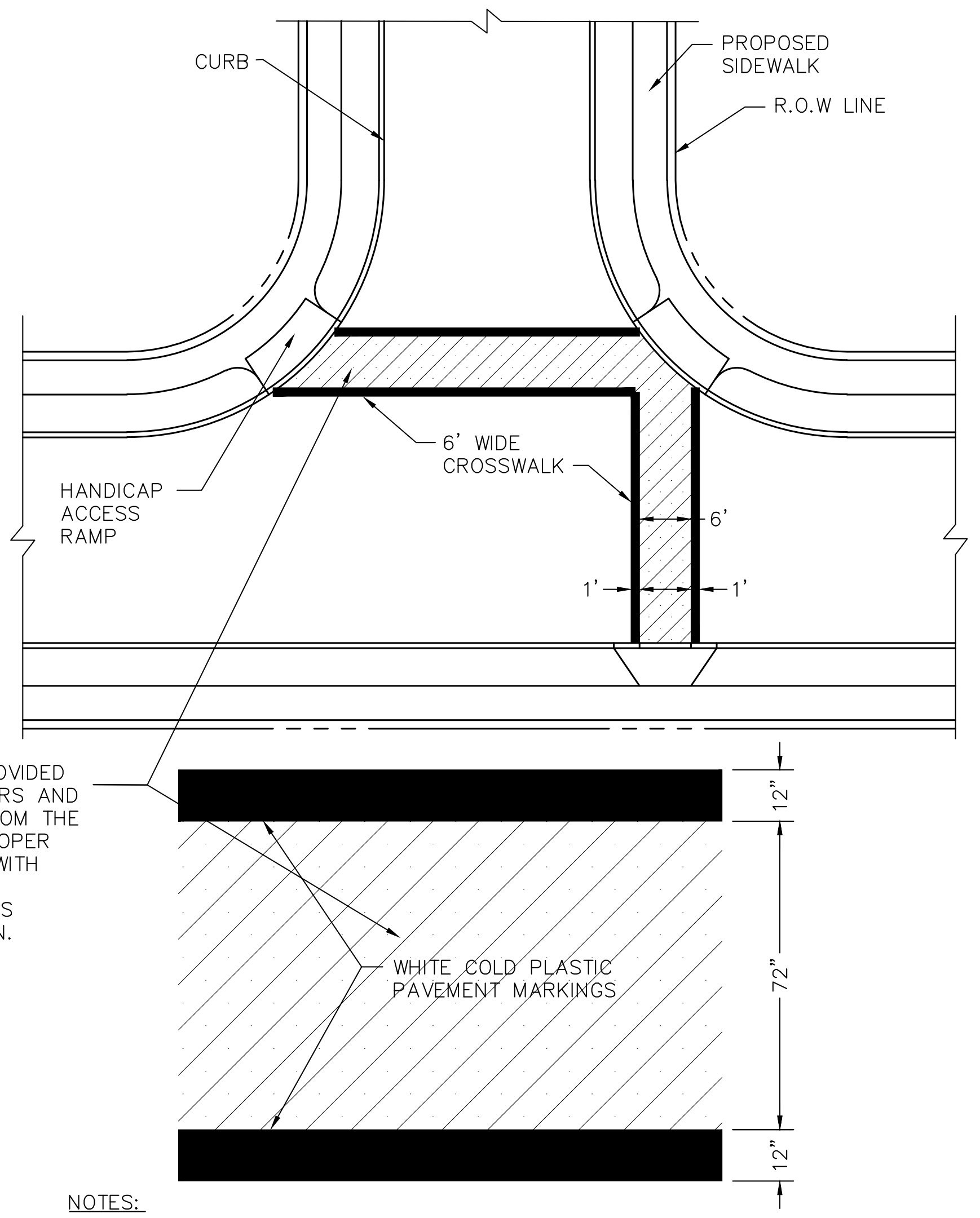
NOTE:

GUIDE RAIL REQUIRED WHEN NEXT TO VEHICULAR TRAFFIC.

RETAINING WALL NOTES:

1. Retaining walls shall be designed by a Professional Engineer experienced in retaining wall design and specific calculations and design details will be provided to the Township.
2. A licensed geotechnical engineer qualified in soils and with experience in retaining walls shall oversee and certify the construction of all retaining walls.
3. A geotechnical engineer shall have all soils tested and approved for use in the construction of the retaining walls prior to their construction.
4. Copies of all geotechnical reports, site observations and soil testing performed in relation to the retaining wall design and construction shall be provided to Lower Allen Township as they become available.
5. All soils shall be compacted to 95% of the maximum dry density as specified by the modifies proctor method (ASTM–D1557) or as otherwise directed by the site geotechnical engineer.
6. The bearing capacity for the base of each retaining wall shall be at least 3,000 PSF. The geotechnical engineer shall test and document the bearing capacity and employ such measures as deemed to achieve a bearing capacity of 3,000 PSF.
7. A minimum cohesion of 150 PSF shall be provided. A geotechnical engineer shall validate the cohesion values prior to any wall construction.
8. Upon completion of each retaining wall, the geotechnical engineer shall submit to Lower Allen Township a geotechnical report documenting all parameters actually used in the field, provide comparison to the design values and document the acceptability of the as–built conditions.

D / CD–2
RETAINING WALL DETAILS (TYPICAL)
NOT TO SCALE


CURB
PROPOSED SIDEWALK
R.O.W LINE
HANDICAP ACCESS RAMP
6' WIDE CROSSWALK
6'
1'
1'
WHITE COLD PLASTIC PAVEMENT MARKINGS
12"
72"
12"

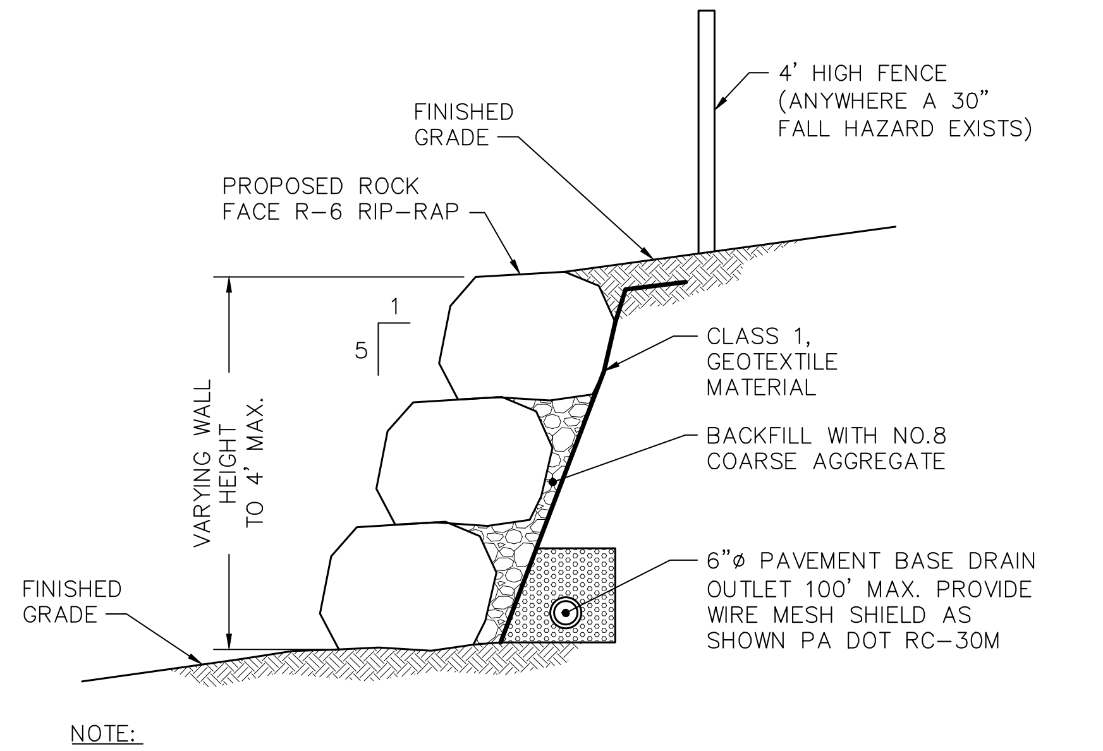
NOTE:

CROSSWALKS TO BE PROVIDED USING MATERIALS, COLORS AND TEXTURE THAT VARY FROM THE ROAD SURFACE. DEVELOPER TO PROVIDE TOWNSHIP WITH DETAILED PLAN FOR PEDESTRIAN CROSSWALKS PRIOR TO CONSTRUCTION.

NOTES:

1. REFER TO SITE PLANS FOR LOCATIONS.
2. PROVIDE PEDESTRIAN CROSSWALK SIGNS AS PER PADOT SPECIFICATIONS.

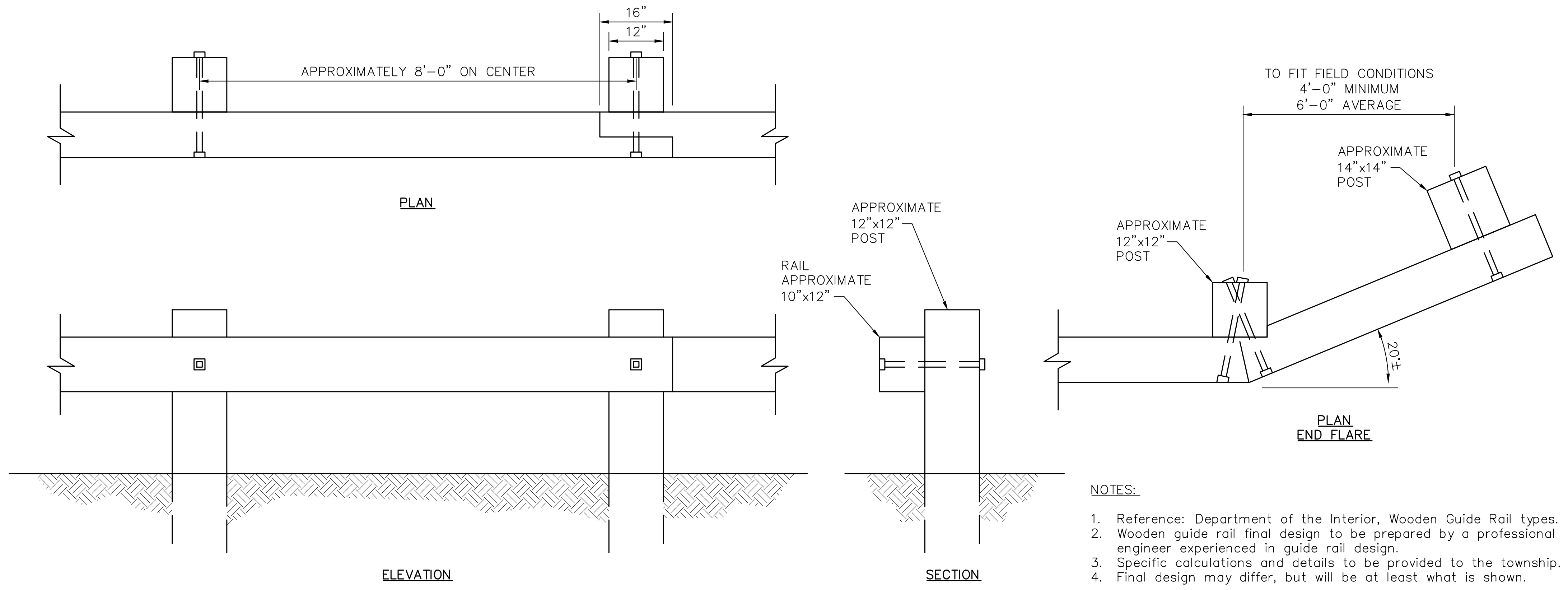
E / CD–2
TYPICAL CROSSWALK DETAIL
NOT TO SCALE


4' HIGH FENCE (ANYWHERE A 30" FALL HAZARD EXISTS)
FINISHED GRADE
PROPOSED ROCK FACE R–6 RIP–RAP
1
5
VARYING WALL HEIGHT TO 4' MAX.
CLASS 1, GEOTEXTILE MATERIAL
BACKFILL WITH NO.8 COARSE AGGREGATE
FINISHED GRADE
6"ø PAVEMENT BASE DRAIN OUTLET 100' MAX. PROVIDE WIRE MESH SHIELD AS SHOWN PA DOT RC–30M

NOTE:

FENCE WILL BE INSTALLED ANYWHERE A FALL HAZARD EXISTS (PER BUILDING CODES – TO BE REVIEWED AND DETERMINED BY THE ZONING OFFICER)

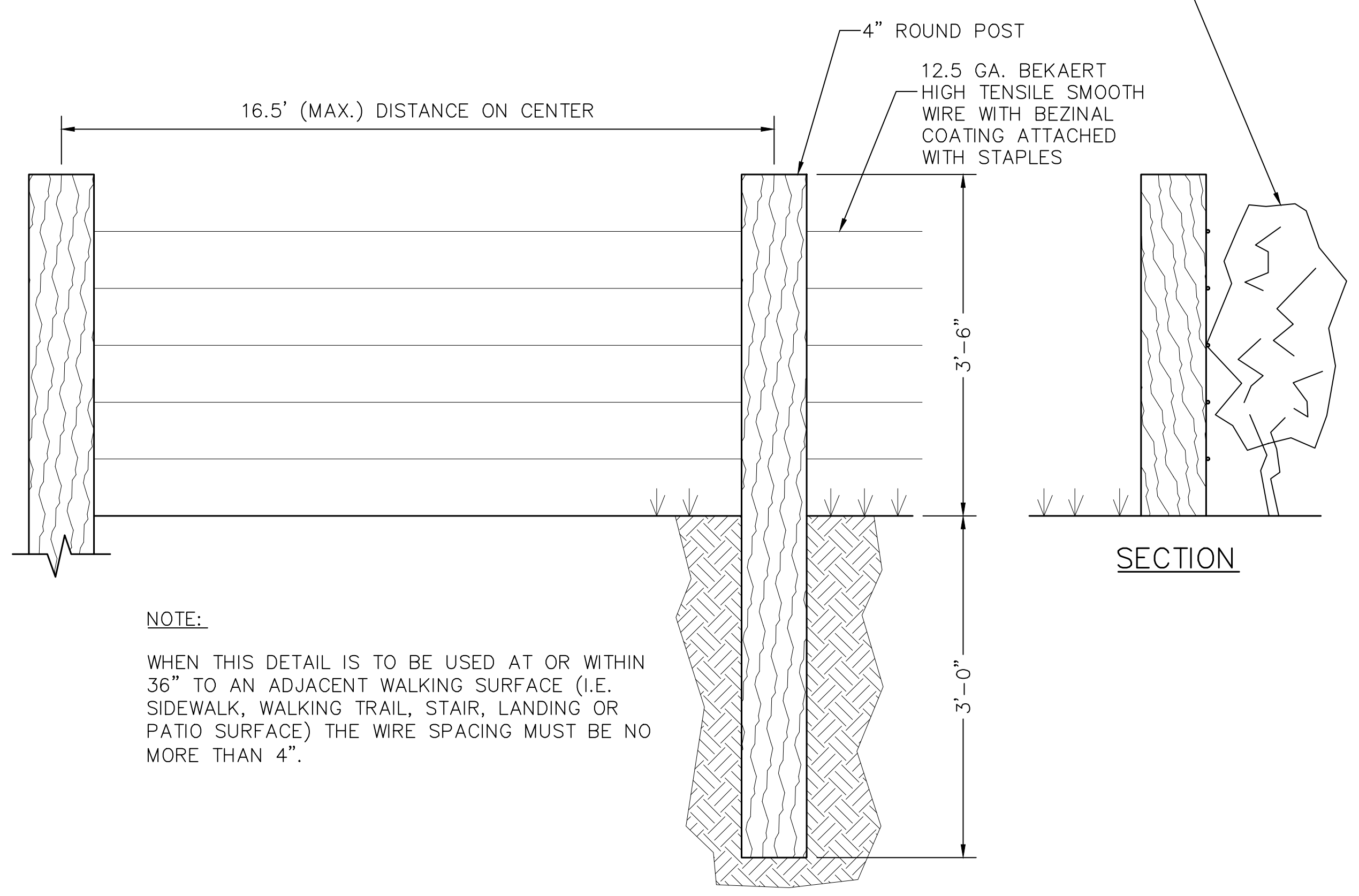
C / CD–2
ROCK LANDSCAPE WALL SECTION
NOT TO SCALE


16"
12"
APPROXIMATELY 8'–0" ON CENTER
PLAN
ELEVATION
APPROXIMATE 12"x12" POST
RAIL APPROXIMATE 10"x12"
SECTION
TO FIT FIELD CONDITIONS 4'–0" MINIMUM 6'–0" AVERAGE
APPROXIMATE 14"x14" POST
APPROXIMATE 12"x12" POST
20°±
PLAN END FLARE

NOTES:

1. Reference: Department of the Interior, Wooden Guide Rail types.
2. Wooden guide rail final design to be prepared by a professional engineer experienced in guide rail design.
3. Specific calculations and details to be provided to the township.
4. Final design may differ, but will be at least what is shown.

G / CD–2
WOODEN GUIDE RAIL AND END TREATMENT DETAIL (TYP.)
NOT TO SCALE


PRIVET HEDGE PLANTED ON UPLAND SIDE OF FENCE ALONG ENTIRE LENGTH. FINAL PLANT SPECIES TO BE DETERMINED BY CONTRACTOR BASED ON AVAILABILITY FROM NURSERY STOCK.
4" ROUND POST
16.5' (MAX.) DISTANCE ON CENTER
12.5 GA. BEKAERT HIGH TENSILE SMOOTH WIRE WITH BEZINAL COATING ATTACHED WITH STAPLES
3'–6"
3'–0"
SECTION

NOTE:

WHEN THIS DETAIL IS TO BE USED AT OR WITHIN 36" TO AN ADJACENT WALKING SURFACE (I.E. SIDEWALK, WALKING TRAIL, STAIR, LANDING OR PATIO SURFACE) THE WIRE SPACING MUST BE NO MORE THAN 4".

F / CD–2
FENCE ALONG RETAINING WALL
NOT TO SCALE

Sheet Number:
16 of 40
Project Number:
15–100–34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3
Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

CONSTRUCTION DETAILS

Project Manager: DAVID B. KEGERIZE PE	Drafting: W ALLEN
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: AS NOTES

Seal:
G. MITCHELL KING
No. PE36683-E

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
CD–2

1/21/2025 12:51 PM L:\15–100–34\SHEETS\PRELIMINARY\16 CD–02.DWG

PRELIMINARY / FINAL

BUCKEYE PARTNERS, L.P. AND AFFILIATES
6161 Hamilton Boulevard
Allentown, PA 18106

Right-of-Way Use Restrictions Specification
Revision 7.2

Table of Contents

SECTION — PAGE NO.

Purpose and Scope ---- 2
1.0 General Guidelines ---- 2
2.0 Excavation and Construction Restrictions ---- 4
3.0 Specific Guidelines ---- 5
3.1 Cover, Grading, and Drainage ---- 5
3.1.1 Cover and Grading ---- 5
3.1.2 Drainage ---- 5
3.2 Aboveground and Underground Structures ---- 6
3.2.1 General Requirements ---- 6
3.2.2 Gardening and Landscaping ---- 6
3.2.3 Fences and Walls ---- 6
3.3 Roads, Driveways, Sidewalks, and Parking Areas ---- 6
3.3.1 General Requirements ---- 6
3.4 Foreign Utility Crossings ---- 7
3.4.1 General Requirements ---- 7
3.4.2 Metallic Utilities ---- 8
3.4.3 Non-Metallic Utilities ---- 8
3.4.4 Underwater Line Crossings ---- 8
3.4.5 Electrical, Fiber-Optic, and Communications Cables ---- 8
3.5 Temporary Access Roads and Heavy/Construction Vehicle Crossings ---- 9
3.6 Railroad Crossings ---- 9
3.7 Farming and Field Tile ---- 10
3.8 Construction-Induced Vibrations ---- 10
3.9 Blasting Operations ---- 10
3.10 Seismic Vibrating Operations ---- 11
3.11 Wind Turbines ---- 12
4.0 Deviations and Exceptions ---- 13
5.0 Additional Information and Buckeye Contacts ---- 13

ATTACHMENTS
1 Buckeye Facility Locations and Phone Numbers ---- 14
2 Right of Way and Encroachment Contacts ---- 15
3 State One Call Systems ---- 17
4 Application for Design Plan Submission and Encroachment Review ---- 18
5 Reinforced-Concrete Slab Detail ---- 22
6 Earthen Ramp Detail ---- 23
7 Foreign Utility Trench Crossing Detail ---- 24
8 Blasting Plan Submission Form ---- 25
9 Excavation Safety Checklist ---- 26

Buckeye Partners, L.P. and Affiliates
Right-of-Way Use Restrictions Specification
Revision 7

Purpose and Scope

This Right-of-Way Use Restrictions Specification (hereinafter called "Specification") has been developed by Buckeye Partners, L.P. and Affiliates (hereinafter called "Buckeye") and is intended for landowners, utility owners, general contractors and their sub-contractors, pipeline/utility contractors, real estate developers, brokers and agents, lending officers and title underwriters, engineers, architects, surveyors, and local / governmental elected staffs (hereinafter called "Crossing Party") as a guideline for the design and construction of proposed land development.

Buckeye appreciates this opportunity to work with you in the planning stages of your development (or construction activity), and we look forward to working with you proactively. Buckeye's primary concern when activities are taking place near our pipeline is public safety and environmental protection. The intent of this Specification is to provide a clear and consistent set of requirements that will: (1) reduce the risk of damage to our pipeline and related facilities; (2) ensure unencumbered access to our right-of-way and pipeline facilities and the availability of adequate workspace for routine maintenance, future inspection, and/or repair work on our pipeline; and (3) enable the effective corrosion protection of our pipeline.

All such activities and projects that are performed near Buckeye's pipeline facilities are subject to formal review by Buckeye prior to issuance of final written approval. Depending on the scope of the project and its impact on Buckeye's pipeline facilities, additional engineering requirements and protective measures may apply. Furthermore, any damage caused by the encroaching party to Buckeye's pipeline(s), the pipeline cathodic protection system, or other Buckeye assets is the sole responsibility of the encroaching party. Buckeye will pursue reimbursement for all costs associated with the event including, but not limited to, excavation services, inspection services, pipeline repairs, and loss of operations.

The following requirements are not only the policy of Buckeye, but comply with regulations set forth by the United States Department of Transportation, Safety Regulations, 49 CFR, Parts 192 and 195.

We want to be a good neighbor, but to do so requires us to act responsibly in protecting our right-of-way and preventing damage to the pipeline system. While we want to make every effort to accommodate your desired use of your property, our responsibility for public safety is paramount. Through proper planning and communications, we can ensure the safety and integrity of our pipeline system and the welfare of our neighbors.

> **The transmittal of this Specification does not constitute Buckeye's approval or permission for the Crossing Party to begin construction or work within or across the pipeline right-of-way. Work may not commence until written authorization approving such work has been issued by Buckeye.**

1.0 General Guidelines

1.1 The safety of the pipeline must be considered at all times. No attempt to probe for or engage in any construction activities which might damage the pipeline is permitted.

1.2 Before any preliminary field work or construction begins in the vicinity of Buckeye's pipeline, a determination of the exact location and elevation of the pipeline must be made. To coordinate this procedure, please contact our local Field Operations Manager at the Buckeye facility nearest to your proposed project (see Attachment 1 for a listing of Buckeye's facilities and telephone numbers). Buckeye makes no assurance that its permanent pipeline markers are positioned directly over its pipeline(s). Line markers should be placed at intervals determined by "line of sight". The relocation, removal, or destruction of Buckeye's pipeline markers are prohibited by federal law. Pipeline markers damaged or made unusable shall be repaired or replaced at the Encroaching Party's expense.

1.3 All proposed drawings/plans must be submitted to Buckeye's Right of Way Department for review to determine to what extent, if any, the pipeline or right-of-way will be affected by the proposed construction and/or development. These drawings/plans must be prepared in strict compliance to Attachment 4, "Requirements for Submission of Design Plans".

1.4 Buckeye may require the property owner to provide proof of current ownership of the land where the proposed encroachment is to occur. Such proof may be in the form of a Title Commitment, Title Policy, or a certified copy of a recorded Conveyance Deed.

1.5 When any construction activity is conducted in or around our pipeline right-of-way, Buckeye's On-Site Inspector must be present at all times. **NO WORK SHALL TAKE PLACE WITHOUT A BUCKEYE ON-SITE INSPECTOR PRESENT**. For this free-of-charge service, contact our local Field Operations Manager at the Buckeye facility nearest to your proposed project.

1.6 The Crossing Party shall contact Buckeye for re-marking of a pipeline if the existing markers are inadequate for any reason, including disturbance due to construction activities.

Note: Federal law prohibits the removal of pipeline markers.

1.7 The Crossing Party shall not burn trash, brush, or other items or substances within 50 feet of the pipeline.

1.8 The Crossing Party shall not store any equipment or materials on the right-of-way. Full access must be maintained to the pipeline(s) at all times. The stockpiling of items including soil, or topsoil over the pipeline(s) is not permitted.

1.9 During routine or emergency maintenance on the pipeline, the cost to restore approved surface improvements (e.g., pavement, landscaping, sidewalks, etc.) shall be the responsibility of the Crossing Party.

1.10 Depending on the type and nature of the encroachment, Buckeye may require the pipeline(s) within the proposed encroachment to be exposed, visually inspected, and backfilled by a Buckeye representative at the full expense of the Crossing Party. Buckeye will evaluate the pipeline(s) cathodic protection system, including the coating type and condition, for suitability of service in relation to the proposed encroachment. Should Buckeye deem that the cathodic protection system and/or coating system is insufficient for any reason, Buckeye will repair or upgrade the system at the Crossing Party's expense to accommodate the proposed encroachment. Potential cathodic protection modifications can include, but are not limited to equipment such as rectifiers, anode systems, test stations, casing pipe, and coating.

2.0 Excavation and Construction Restrictions

2.1 Excavation operations shall be performed in accordance with appropriate State "One-Call" utility locating system requirements. As a matter of State law, anyone undertaking excavation work is required to call three (3) working days before excavating in MA, ME, MI, MO, NJ, PA, RI, SC, TN, and WI; two (2) working days in all other states (see Attachment 3 for State "One-Call" numbers).

811 Know what's below. Call before you dig.

2.2 The Crossing Party will conduct "white-lining" of any proposed excavation areas. Buckeye will erect temporary pipeline markers/flags (yellow) identifying the location of the pipeline within the work area, and will provide information on how to respond should the pipeline be damaged or a commodity release occur. All personnel operating equipment over or around the pipeline must be made aware of its location and what to do if they make contact with the pipeline.

Note: The Encroaching Party must utilize a qualified contractor of Buckeye's choice to locate and mark the existing Buckeye operated pipeline(s) using current industry practices and agrees to mark the location of the pipeline with buoys or by electronic location methods as approved by Buckeye for the duration of the construction activity in the vicinity of Buckeye's operated pipeline(s). If proposing dredging activities within 150-feet of Buckeye's pipeline(s), a dredging plan must be submitted to Buckeye for review and approval.

2.3 When a Crossing Party excavates near Buckeye's pipeline, a Buckeye representative must locate the pipeline and determine the depth of cover before the Crossing Party begins excavation. The Buckeye representative and the excavator must review and complete an Excavation Safety Checklist (Attachment 9). The Crossing Party shall not perform any excavation, crossing, backfilling, or construction operations until Buckeye's On-Site Inspector has reviewed the proposed work on site and given approval for work to proceed. Buckeye's On-Site Inspector shall have full authority to stop the work if it is determined that the work is being performed in an unsafe manner.

2.4 No equipment shall work directly over the pipeline. The Crossing Party shall install temporary fencing along Buckeye's right-of-way boundaries so that equipment will not inadvertently pass over the pipeline at locations other than those established for crossing (see Section 3.5).

2.5 When excavating within the right-of-way, the Crossing Party's backhoe shall have a plate welded over the teeth of the backhoe bucket, and the side cutters must be removed prior to excavation. However, if within 24 inches of the outer edge of the pipe (this "tolerance zone" extends on all sides of the pipe), only hand excavation, air cutting, and vacuum excavation are permitted.

2.6 No excavations shall be made on land adjacent to the pipeline that will in any way impair, withdraw lateral support, cause subsidence, create the accumulation of water, or cause damage to the pipeline or right-of-way.

2.7 The Crossing Party shall ensure all excavation work complies with OSHA's excavation standards outlined in 29 CFR 1926 and correct any noncompliant excavation site before Buckeye's On-Site Inspector or the Crossing Party enters the site to perform work.

2.8 If conditions require, the Crossing Party shall be directed by Buckeye to install sand or cement bags or other suitable insulating materials to maintain proper vertical clearance from the pipeline.

2.9 At any location where the pipeline is exposed, the Crossing Party shall provide Buckeye the opportunity to inspect the pipeline condition, install cathodic protection test leads, and/or install underground warning mesh.

2.10 The maximum unsupported exposed length of pipe shall be 20 feet for 4-inch-diameter pipe, 25 feet for 6-inch- to 10-inch-diameter pipe, and 35 feet for 12-inch- to 24-inch-diameter pipe. When required, the pipeline shall be supported with grout and sand bags or padded skids. At no time shall the pipeline be used as a brace to support equipment or sheeting/shoring materials.

Note: The Crossing Party shall submit a support plan for Buckeye's review and approval.

2.11 No buried pipeline may be left exposed for any duration of time without concurrence of Buckeye's On-Site Inspector.

2.12 Backfill and compaction shall be performed to the satisfaction and in the presence of Buckeye's On-Site Inspector. Within 5 feet of the pipeline crossing location, the Crossing Party shall place at least 12 inches of sand with no sharp gravel, rock, hard clods, vegetation, or other debris on all sides of any pipeline, and remaining backfill shall be placed so as not to disturb this padding material or damage the pipeline (see Attachment 7 for Foreign Utility Crossing Detail). Backfill over the pipe shall be compacted by hand until 18 inches of cover is achieved. The disturbed ground shall be compacted to the same degree of compaction of surrounding areas. The Crossing Party shall restore the site to its original condition except for items that are part of the Buckeye approved change.

3.0 Specific Guidelines

3.1 Cover, Grading, and Drainage

3.1.1 **Cover and Grading**:
- a. The existing cover over the pipeline shall not be modified without Buckeye's written approval.
- b. The final grading shall net a minimum cover of 36 inches over the pipeline.
- c. In areas where buildings are proposed within 50 feet of the pipeline or due to other surface improvements and/or in areas determined by Buckeye, final grading shall net a minimum cover of 48 inches over the pipeline.
- d. The maximum allowable constructed cross-slope within the ROW shall be 5H:1V and shall never be greater than the existing cross-slope.
- e. The maximum allowable cover/soil shall not exceed six (6) feet without Buckeye's written approval.
- f. Use of vibratory equipment larger than walk-behind units are not permitted within 25 feet of the pipeline.

3.1.2 **Drainage**:
- a. Detention ponds, lakes, structures or any type of impoundment of water, temporary or permanent, are prohibited within the right-of-way.
- b. Culverts are not permitted within the right-of-way.

- c. Any modifications to an existing drainage pattern shall be designed such that the erosion of the pipeline cover is controlled.
- d. For streams, drainage channels, and ditches, a minimum of cover of 60 inches is required between the pipeline and the bottom of the drainage canal or ditch (see Section 3.3.1.f for road drainage ditches).

3.2 Aboveground and Underground Structures

3.2.1 **General Requirements**:
- a. Buildings or other structures, including, but without limitation, overhanging balconies, patios, decks, swimming pools, wells, walls, septic systems, propane tanks, transformer pads, manholes, valve boxes, storm drain inlets, utility poles, the storage of materials, or any other item which will create an obstruction or prevent the inspection of the right-of-way by air or foot, shall not be erected within the right-of-way.
- b. The Crossing Party shall not develop or build retaining walls, drive piling or sheeting, or install an engineered structure that develops or controls overburden loads that will impact the pipeline (see Section 3.8).
- c. Deep foundations which include piers, caissons, drilled shafts, bored piles, and cast-in-situ piles located within 500 feet of the pipeline shall be installed/drilled using an auger.
- d. Occupied structures shall not be located within 50 feet of the pipeline unless a minimum cover of 48 inches is provided above the top of the pipeline.
- e. Any deviation for aboveground and underground structures will be reviewed by Buckeye on a ***case-by-case basis***.

3.2.2 **Gardening and Landscaping**:
- a. Trees, shrubs and bushes are not permitted within the right-of-way. Trees planted outside of the right-of-way should be placed so branches and limbs will not overhang the pipeline right-of-way as the tree matures. Buckeye may trim/remove overhanging branches and limbs that encroach into the right-of-way.
- b. Flowerbeds, vegetable gardens and lawns, are permitted within the right-of-way. Buckeye is not responsible for replacing any plantings located within the right-of-way.

3.2.3 **Fences and Walls**:
- a. Privacy fences or fences that prevent access to the right-of-way are not permitted.
- b. All other fence installations within the right-of-way will be reviewed for approval by Buckeye on a ***case-by-case basis***. Upon Buckeye's written approval, fences shall be constructed with a 14-foot gate or removable sections across the right-of-way.
- c. Fence posts shall not be installed within 5 feet of the pipeline and must be equidistant if crossing the pipeline.
- d. No fence shall cross the right-of-way at less than a 60-degree angle.
- e. Fences that run parallel to the pipeline shall be installed outside the right-of-way.
- f. Masonry, brick, or stone walls are not permitted on the right-of-way.

3.3 Roads, Driveways, Sidewalks, and Parking Areas

3.3.1 **General Requirements**:
- a. Roads, driveways, sidewalks, or parking areas are strictly prohibited. When extenuating circumstances arise, these items may be reviewed by Buckeye on a case-by-case basis. Upon Buckeye's written approval, roads, driveways, and sidewalks shall cross perpendicular to the pipeline.

- b. The maximum allowable cover shall not exceed six (6) feet without Buckeye's written approval.
- c. Use of vibratory equipment larger than walk-behind units is not permitted within 25 feet of the pipeline.
- d. Roads or driveways shall not be installed longitudinally within the right-of-way.
- e. For roads and driveways, a minimum cover of 48 inches with a net cover of 36 inches of undisturbed soil is required above the pipeline.
- f. A minimum cover of 36 inches over the pipeline is required at road drainage ditches. Upon Buckeye's approval, this cover can be reduced to 24 inches if ditch is rock/rip-rap lined and 12 inches if ditch is concrete lined.
- g. For asphalt parking lots and sidewalks, a minimum cover of 36 inches with a net cover of 24 inches of undisturbed soil is required above the pipeline. Additional cover may be required by Buckeye based upon specific site conditions.
- h. Stockpiling of materials on the right-of-way is not permitted. These materials include, but are not limited to soil, snow, stone, boulders, trees, brush, grass clippings, leaves, etc.

3.4 Foreign Utility Crossings

3.4.1 **General Requirements**:
- a. Utilities shall cross perpendicular to the pipeline.
- b. Utilities are required to cross beneath the pipeline with a minimum clearance of 24 inches. Exceptions to Buckeye's clearance requirements for underground service entrances to single family dwellings will be reviewed on a ***case-by-case basis***.
- c. Sand or select fill shall be placed between the pipeline and utility (see Section 2.8).
- d. Utilities installed parallel to the pipeline shall be reviewed by Buckeye on a ***case-by-case basis***. If approved, the utility shall be no closer than 15 feet from the pipeline.
- e. Warning tape, in accordance with A.P.W.A. Uniform Color Code, shall be placed above utility, 12 inches below ground, for a distance of 25 feet on either side of crossing.
- f. Signage shall be placed at crossing as determined appropriate by Buckeye.
- g. Splice boxes, service risers, energized equipment, etc., are not permitted within the right-of-way.
- h. Trenchless Excavations:
  - [1] Utilities installed by a trenchless excavation method (directional drilling, jacking, slick boring, etc.) shall be reviewed by Buckeye on a ***case-by-case basis***.
  - [2] Buckeye reserves the right to select the method of crossing for the proposed utility.
  - [3] A minimum clearance of 60 inches (5 feet) below the pipeline is required.
  - [4] For directional drilling operations, a tracking system is required to verify the exact location of the drill head.
  - [5] For perpendicular crossings, a 4 feet by 4 feet excavation window, 24 inches below the pipeline is required for visual inspection of the pipeline to ensure the drill (or bore) does not impact the pipeline.
  - [6] Blind boring is not permitted within Buckeye's right-of-way.
  - [7] When trenchless excavations are authorized by Buckeye parallel to and within 10 feet of an existing pipeline, observation holes shall be excavated at 25-foot intervals to monitor the progress and horizontal/vertical location of the drill head.

  - [8] Buckeye must be provided with an advance copy of the horizontal directional drill (HDD) plan for the trenchless excavation which specifies how the HDD will be tracked, monitored and controlled at least two weeks before work is to commence. The plan must detail preventative measures to prevent conflicts with Buckeye's existing facility. The plan must state the planned HDD bore diameters, rod lengths, ream diameters, method of guidance, method of drill head tracking, etc. Additionally, the plan needs to include procedures for continuous monitoring and reporting of the drill head location, and state the appropriate vertical and horizontal deviation tolerances for the HDD operations in accordance with API RP 1172 – "6 Final Design". The procedure must include reporting requirements and procedures to correct or shut down the HDD trajectory should the operation exceeds the established tolerances. Buckeye Operations must be notified immediately if tolerances are compromised and should be involved in the recommencement of operations after tolerances are exceeded.

3.4.2 **Metallic Utilities**:
- a. Bonds and test leads shall be installed at the expense of and by the Crossing Party where Buckeye deems necessary.
- b. Utilities shall be coated with a non-conductive coating for a distance of 50 feet on either side of the pipeline crossing.
- c. Ductile water pipe shall include nitrile gaskets within 50 feet of the pipeline crossing or anywhere within 25 feet of horizontal offset locations.

3.4.3 **Non-Metallic Utilities**:
- a. Utilities shall be wrapped with tracer wire within the width of the right-of-way.
- b. Natural gas (or other industrial gases) lines shall be encased in a 6-inch envelope of yellow 3,000 psi concrete across the right-of-way for a minimum distance of 10 feet to each side of each BUCKEYE Pipeline(s) across the right-of-way.
- c. PVC water pipe shall include nitrile gaskets within 50 feet of the pipeline crossing or anywhere within 25 feet of horizontal offset locations.

3.4.4 **Underwater Line Crossings:**
- a. For underwater line location procedures, refer to section 2.2.
- b. The Encroaching Party must provide qualified diving inspectors to Buckeye for use during the crossing activity at no cost to Buckeye.
- c. The Encroaching Party must place sacks filled with sand and cement between Buckeye's pipeline(s) and the encroaching utility to provide and maintain the required minimum vertical clearance between the two utilities.

3.4.5 **Electrical, Fiber-Optic, and Communications Cables**
- a. **Buried Cables**:
  - [1] Electrical conductors/cable installations shall meet minimum requirements of National Electric Code for buried conductors and be adequately shielded and be impervious to hydrocarbon liquids.
  - [2] Cables are required to cross beneath the pipeline with a minimum clearance of 24 inches. Exceptions to Buckeye's clearance requirements for underground service entrances to single family dwellings will be reviewed on a ***case-by-case basis***.
  - [3] Sand or select fill shall be placed between the pipeline and cable (see Section 2.8).

  - [4] All cables shall be installed in Schedule 80 PVC pipe and encased in a 6-inch envelope of color coded (i.e. red for electrical cable, orange for communication cable) 3,000 psi concrete for a minimum distance of 10 feet to each side of each BUCKEYE Pipeline(s) across the right-of-way.
  - [5] Warning tape, in accordance with A.P.W.A. Uniform Color Code, shall be placed above the utility, 12 inches below ground, for a distance of 25 feet on either side of the crossing.
  - [6] Signage for the crossing shall be placed as determined appropriate by Buckeye.
- b. **Aboveground Cables**:
  - [1] A minimum of 20 feet of above-grade clearance for a distance of 25 feet on each side of the pipeline is required.
  - [2] Mechanical supports and service drops including poles, towers, guy wires, ground rods, anchors, etc., are not permitted within 25 feet of the pipeline.

3.5 Temporary Access Roads and Heavy/Construction Vehicle Crossings

3.5.1 **General Requirements**:
- a. The Encroaching Party shall provide Buckeye information as to the type, model, size, and axle weight of construction equipment that will be used over or in the vicinity of the pipeline(s).
- b. Trucks carrying a maximum axle load up to 15,000 pounds may cross the right-of-way after Buckeye has confirmed a minimum cover of 48 inches over the pipeline.
- c. For all other cases, earthen ramps (see Attachment 6), swamp mats, air bridges, reinforced-concrete slabs (see Attachment 5), or steel plates may be required. Loading conditions and protection measures will be evaluated and dictated by Buckeye's Right of Way Department.
- d. When temporary fill must be added, colored sheets of plastic shall be placed under the temporary fill at original grade so that the original grade will not be disturbed when the temporary fill is removed.
- e. At all crossing locations, the Crossing Party will provide 12" of clean AASHTO 1 stone over the pipeline right-of-way.
- f. During the use of an approved temporary construction road, Buckeye may require that the Crossing Party provide additional protective measures deemed necessary to prevent damage to the pipeline.
- g. Buckeye will limit the number of temporary construction roads constructed by the Crossing Party.

3.6 Railroad Crossings

3.6.1 **General Requirements**:
- a. A minimum clearance of 72 inches is required between railroad tracks and the pipeline.
- b. A minimum cover of 36 inches is required between the bottom of drainage ditches on either side of a railroad and the pipeline.
- c. For railroad main lines, the pipeline crossing must comply with local railroad guidelines that delineate the requirements for carrier pipe, casing pipe, and clearances. Buckeye shall be consulted for the review of any State submittals.
- d. For private spur crossings, Buckeye will determine the railroad entity having jurisdictional authority to dictate crossing requirements.

3.7 Farming and Field Tile

3.7.1 **General Requirements**:
- a. Field tile running parallel to the pipeline shall be spaced 10 feet from the centerline of the pipeline.
- b. Field tile shall cross the pipeline perpendicularly with a clearance of 12 inches above or below the pipeline.
- c. Buckeye will approve the total number of crossings of the pipeline on a ***case-by-case basis***.
- d. Deep plowing or "ripping" operations shall be approved by and coordinated with Buckeye.

3.8 Construction-Induced Vibrations

3.8.1 **General Requirements**:
- a. Construction activities that generate ground vibrations, including, but without limitation, pile driving, sheet driving, soil compaction work, jackhammering, or ramming, shall be reviewed by Buckeye on a ***case-by-case basis***.
- b. If the Crossing Party anticipates such an activity within 10 feet of the pipeline, then continuous testing monitored by a seismograph located directly over the pipeline at its closest point to the activity must be conducted. The Crossing Party shall provide, at their expense, the monitoring service which must be approved by Buckeye.
- c. The particle velocity of any one component of a three-component seismograph must not exceed 2.0 inches per second as recorded on the seismograph placed directly over the pipeline.

3.9 Blasting Operations

3.9.1 **Blasting within 500 feet of the pipeline right-of-way**:
- a. The Crossing Party must submit a blast plan to Buckeye for review and approval. Verbal and written notice will be given 14 and 21 days respectively.
- b. Blasting plans must include the following information:
  - Dates blasting to occur
  - Explosives type
  - Maximum shot hole depth and diameter
  - Number of holes and spacing
  - Delay pattern
  - Delay types and intervals
  - Depth of overburden
  - Depth of blast area
  - Maximum charge per hole, per delay
  - Show drilling/blasting pattern plan and profile in relation to Buckeye facilities
  - Calculated radiant peak particle velocity (PPV) at varying distances from the pipeline and at the pipeline itself
  - State permit (copy)
  - Blasting contractor qualifications and insurance certificate (copy)
  - Blasting Safety Plan (copy)

  The Crossing Party shall complete Attachment 8, "Blasting Plan Submission Form", and include this form with their submission to Buckeye.
- c. The Crossing Party shall make arrangements for a Buckeye On-site Inspector to be present to witness the blasting operation.

3.9.2 **Blasting within 300 feet of the pipeline right-of-way**:
(**Adds to or replaces items in Section 3.10.1**)
- a. Blasting shall be monitored by a seismograph located directly over the pipeline at its closest point to the blast hole(s). The Crossing Party shall provide, at their expense, the monitoring service which must be approved by Buckeye.
- b. The particle velocity of any one component of a three-component seismograph must not exceed 2.0 inches per second as recorded on the seismograph placed on the ground directly over the pipeline.
- c. For blast testing, an initial test blast using a maximum charge of one pound shall be performed. The Crossing party shall detonate the first test blast with all necessary monitoring equipment in place to observe the results of the proposed blast design. Each subsequent test blast may be set and detonated only after the seismograph reading from the previous test blast indicates that further blasting can be safely conducted.
- d. Routine production blasting may be initiated after completion of a successful test blast, with allowable charge based on the seismographic vibration recordings of test blasts. However, all blasting must be continuously monitored by a seismograph. The velocity recorded must not exceed the 2.0 inches per second limit noted above.

3.9.3 **Blasting within 50 feet of the pipeline right-of-way**:
(Adds to or replaces items in Section 3.10.2)
- a. The Crossing Party shall hire a consulting firm that specializes in underground blasting to conduct the seismograph survey and certify the results.
- b. Buckeye will approve the Crossing Party's selection of consulting firms that will conduct the seismographic surveys before starting any blasting operation.

3.9.4 **Special Requirements**:
- a. For multiple-delay blasting, the Crossing Party shall begin the blasting sequence at the charge closest to the pipeline and progress away from the pipeline.
- b. If seismographic readings above the limit stated in item 3.10.2.b of this section are recorded, the pipeline must be exposed and inspected for possible damage and/or product release. The Crossing Party conducting blasting operations is responsible for all expenses related to the exposure and any subsequent repairs necessitated by the operation.
- c. At Buckeye's request, the Crossing Party shall install sheet piling, open trench channels, and/or matting to protect the pipeline during blasting operations.

3.10 Seismic Vibrating Operations

3.10.1 **Seismic vibrating within 500 feet of the pipeline right-of-way**:
- a. The Crossing Party must submit a seismic vibrating plan to Buckeye for review and approval. Verbal and written notice will be given 14 and 21 days respectively.
- b. Seismic vibrating plans, when using Vibroseis System Vibrators to radiate ground vibrations, must include information on soil conditions and depth of exploration, the anticipated number and type of vibrations, type and weight of vehicle, and peak force of equipment.
- c. The peak force by vehicle weight shall not exceed 45,000 pounds.
- d. The Crossing Party shall also make arrangements for a Buckeye On-Site Inspector to be present to witness the seismic vibrating operation.

3.10.2 **Seismic vibrating within 100 feet of the pipeline right-of-way**:

- a. Vibration shall be monitored by a seismograph located directly over the pipeline at its closest point to the vibrator(s). The Crossing Party shall provide, at their expense, the monitoring service which must be approved by Buckeye.
- b. The Crossing party shall determine and limit the maximum peak force allowed under continuous seismographic vibration monitoring such that the peak particle velocity will not exceed 2.0 inches per second.
- c. Seismic vibration surveys shall not be conducted closer than 100 feet to the pipeline.

3.10.3 **Special Requirements**:
- a. If seismographic readings above the limit stated in item 3.10.2.b of this section are recorded, the pipeline must be exposed and inspected for possible damage and/or product release. The Crossing Party conducting seismic vibrating operations is responsible for all expenses related to the exposure and any subsequent repairs necessitated by the operation.
- b. At Buckeye's request, the Crossing Party shall install sheet piling and/or open trench channels to protect the pipeline during seismic vibrating operations.

3.11 Wind Turbines

3.11.1 **Setback Distance from Pipelines**
- a. Wind turbine structures shall be set back from any Buckeye pipeline at least a distance equal to 110% of the structure height, which is defined as the height of the entire wind turbine system as measured from the bottom of the base to the highest vertical point of the system including the base and tower and the highest reach of the turbines or blades.
- b. No facilities associated with a wind turbine installation project shall be permitted to be installed within the pipeline easement.
- c. Warning lights shall be installed on all wind turbines that are located within 1,200 feet of any Buckeye pipeline.

3.11.2 **Construction Equipment and Crane Crossings**
- a. All temporary access roads and heavy/construction vehicle crossings shall comply with Section 3.5 above.
- b. Where cranes and other maintenance vehicles will need to cross Buckeye pipelines on a routine permanent basis for maintenance of the turbine(s), permanent crossing locations must be established, an encroachment agreement must be signed by the landowner and facility owner, and permanent crossing protections must be installed to the satisfaction of Buckeye.
- c. Construction materials or equipment shall not be transported longitudinally over Buckeye's pipelines.

3.11.3 **Underground Utilities**
- a. Cables and electrical conduit crossings shall comply with Section 3.4 above.
- b. BUCKEYE may require at the expense of the CROSSING PARTY an AC Arc Fault Study, specific to the CROSSING PARTY'S project encroachments. The study will determine if there is adequate AC Arc Fault protection of and separation from BUCKEYE'S facilities. BUCKEYE will arrange for the engineering, design and installation of AC mitigation and Lightning suppression systems, as deemed necessary by the AC Arc Fault Study. The reasonable cost of such AC remediation and Lightning suppression systems shall be submitted to CROSSING PARTY for review and approval, which approval shall not be unreasonably delayed, conditioned or withheld, and, upon approval such reasonable cost will be prepaid by CROSSING PARTY to BUCKEYE.

4.0 Deviations and Exceptions

4.1 When and where special circumstances dictate, deviation from these requirements must be formally approved by Buckeye in writing prior to commencement of any excavation or other construction activity that may impact the pipeline. Any such deviations must be explained and documented and provided to Buckeye for review and approval.

5.0 Additional Information and Buckeye Contacts

5.1 Should you have any questions regarding pipeline rights-of-way or your specific easement, contact Buckeye's Right of Way Department at the applicable phone number listed in Attachment 2.

5.2 Should you have any questions regarding Buckeye's engineering requirements, contact Buckeye's Encroachment Design Reviewer at encroachmentreviews@buckeye.com .

Attachment 1: Buckeye Facility Locations and Phone Numbers

Alabama	Birmingham	(205) 369-0179
	Montgomery	(334) 309-4710
California	San Diego	(714) 269-9028
Connecticut & Massachusetts	Wethersfield	(860) 529-7781
	New Haven	(203) 469-3479
Florida	Port Everglades	(954) 522-8464
Georgia	Birmingham (AL)	(205) 369-0179
Illinois	Argo	(708) 259-1352
	Lemont (West Shore)	(888) 625-7310
	Kankakee	(815) 932-3029
	Hartford	(618) 255-1100
Indiana	Hammond	(888) 625-7310
	Hammond (West Shore)	(708) 227-0962
	Huntington	(260) 356-5802
Iowa	Cedar Rapids	(708) 259-1352
	Council Bluffs	(712) 366-9461
	Des Moines	(515) 226-4017
	Ottumwa	(641) 684-6789
Louisiana	Liberty (TX)	(936) 336-5773
Maine	South Portland	(207) 808-4533
Michigan	Wayne	(734) 721-8834
Missouri	North St. Louis	(314) 231-2000
	Sugar Creek	(816) 836-6000
	Burlington Junction	(660) 725-3386
Nevada	Reno	(760) 802-1535
New Jersey	Linden	(908) 374-5301
New York	Auburn	(315) 253-5395
	New York City	(718) 656-5746
North Carolina	Goldsboro	(919) 778-2712
Ohio	Lima	(419) 993-8025
	Mantua	(330) 274-2234
	Toledo	(419) 698-8190
Pennsylvania	Boothwyn	(610) 459-3441
	Coraopolis	(412) 264-7432
	Duncansville	(814) 695-4852
	Malvern	(610) 249-9430
	Mechanicsburg	(717) 766-7633
	Macungie	(484) 232-4218
Tennessee	Memphis	(901) 395-0122
Texas	Baytown	(281) 383-9050
Wisconsin	Milwaukee (West Shore)	(888) 625-7310
	Madison (West Shore)	(815) 964-3727

Attachment 2: Right of Way & Encroachment Contacts

Name	Responsibility	Phone / Address / Email
David Boone	**Sr. Manager, Right of Way, Real Estate, and Damage Prevention**	(610) 904-44015 6161 Hamilton Blvd. Allentown, PA18106 dboone@buckeye.com
Chris McPike	**Sr. Specialist, Right of Way** *West Region*: Eastern Ohio, Pennsylvania (Central & Western)	(216) 271-8103 4800 East 49th Street Cleveland, OH 44125 CMcPike@buckeye.com
Brandon Allen	**Specialist, Right of Way II** *West Region*: Michigan, Ohio (except for Eastern Ohio), Indiana (Zionsville and Huntington)	(216) 318-2124 993 Brodhead Road Suite 100 Coraopolis, PA 15108 BAllen@buckeye.com
Jana Olthoff	**Specialist, Right of Way II** *West Region*: Northern & Central Illinois, Indiana, Wisconsin	(219) 741-0201 5521 West Lincoln Highway Crown Point, IN JOlthoff@buckeye.com
Wesley Pekarek	**Sr. Specialist, Right of Way** *West Region*: Iowa, Missouri, Southern Illinois, California, Nevada	(816) 836-6096 1315 N. Sterling Ave. Sugar Creek, MO 64054 WPekarek@buckeye.com
Mike Bass	**Specialist, Right of Way II** *East Region*: Northeast Pennsylvania, Southeast Pennsylvania, Central Pennsylvania, New York (Upstate), Maryland, Virginia	(484) 635-8724 5002 Buckeye Road Emmaus, PA 18049 MBass@buckeye.com
Emily Litwa	**Specialist, Right of Way II** *East Region*: New Jersey, Connecticut, Maine, Massachusetts, New York	(732)-692-5243 750 Cliff Rd Port Reading, NJ 07064 ELitwa@buckeye.com
Dave Jones	**Manager, Damage Prevention Program** *Encroachment Design Review:* East, West, South Regions	(610)-904-4409 6161 Hamilton Blvd. Allentown, PA 18106 DAJones@buckeye.com
Daniel Mangum	**Sr. Specialist, Right of Way & Development** *South Region*: Texas, Louisiana, Tennessee, Alabama, Georgia, South	(832) 325-1626 4200 Westheimer Road Houston, Texas 77027 DMangum@buckeye.com

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Sheet Number:
17 of 40

Project Number:
15-100-34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3
Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

CONSTRUCTION DETAILS

Drafting: W ALLEN
Checked by: –
Scale: AS NOTED

Project Manager: DAVID B. KEGERIZE PE
Project Engineer: G. MITCHELL KING PE, PLS
Project Surveyor: MATTHEW D. DENNIS PE, PLS

Seal:

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
CD-3

1/21/2025 12:50 PM L:\15-100-34\SHEETS\PRELIMINARY\17 CD-03.DWG

PRELIMINARY / FINAL

	Carolina, Nevada, Florida, North Carolina	
Teriann Williams	**Right of Way Coordinator** *Easements and Records:* Supporting East, West, and South Regions	(610) 904-4418 6161 Hamilton Blvd. Allentown, PA 18106 TEWilliams@buckeye.com

Attachment 3: State One Call Systems (National One Call System - Dial 811)

State	One Call Program	Phone No.	Website
Alabama	Alabama 811	(800) 292-8525	www.al811.com
California - North	USA North of Central / Northern California & Nevada	(800) 227-2600	www.usanorth.org
- South	Dig Alert & Underground Service Alert South	(800) 422-4133	www.digalert.org
Connecticut	Call Before You Dig	(800) 922-4455	www.cbyd.com
Florida	Sunshine State One Call	(800) 432-4770	www.callsunshine.com
Georgia	Georgia 811	(800) 282-7411	www.georgia811.com
Illinois - Non-Chicago	Julie, Inc.	(800) 892-0123	www.illinois1call.com
- Chicago	DIGGER - Chicago Utility Alert Network	(312) 744-7000	www.cityofchicago.org/transportation
Indiana	Indiana 811	(800) 382-5544	www.indiana811.org
Iowa	Iowa One Call	(800) 292-8989	www.iowaonecall.com
Louisiana	Louisiana One Call System, Inc.	(800) 272-3020	www.laonecall.com
Maine	Dig Safe System Inc.	(888) 344-7233	www.digsafe.com
Massachusetts	Dig Safe System Inc.	(888) 344-7233	www.digsafe.com
Michigan	MISS Dig System, Inc.	(800) 482-7171	www.missdig.net
Missouri	Missouri One Call System, Inc.	(800) 344-7483	www.mo1call.com
Nevada	USA North of Central / Northern California & Nevada	(800) 227-2600	www.usanorth.org
New Jersey	New Jersey One Call	(800) 272-1000	www.nj1-call.org
New York	Dig Safely New York	(800) 962-7962	www.digsafelynewyork.com
New York City & Long Island	New York 811, Inc.	(800) 272-4480	www.newyork-811.com
North Carolina	North Carolina 811	(800) 632-4949	www.nc811.org
Ohio	Ohio Utilities Protection Service	(800) 362-2764	www.oups.org
Pennsylvania	Pennsylvania One Call System, Inc.	(800) 242-1776	www.pa1call.org
Rhode Island	Dig Safe System Inc.	(800) 344-7233	www.digsafe.com
South Carolina	South Carolina 811 / PUPS	(888) 721-7877	www.sc811.com
Tennessee	Tennessee 811	(800) 351-1111	www.tnonecall.com OR www.tennessee811.com
Texas	Texas 811 OR Lone Star Notification Center	(800) 344-8377 (800) 669-8344	www.texas811.org www.lsnconecall.com
Wisconsin	Wisconsin Diggers Hotline	(800) 242-8511	www.diggershotline.com

Attachment 4: Application for Design Plan Submission and Encroachment Review

INSTRUCTIONS

Prior to completing the following Application for Design Plan Submission and Encroachment Review (application), please review these instructions to determine if an application is required and to ensure that all necessary information has been obtained. Failure to follow these instructions and/or failure to provide the required information will delay the review process.

One Call Notification – To prevent damages to pipeline facilities from subsurface excavation or any activity that disturbs or impacts the depth of cover over underground facilities, Buckeye participates in "One-Call" organizations in all the states in which Buckeye has operating facilities. A list of the One-Call organizations Buckeye participates in is listed in Attachment 3 of the Right of Way Use Restrictions Specification. Placing a one call notification will put you in contact with the appropriate Buckeye Field Representative

Buckeye Field Representative Coordination – Discuss with the Buckeye Field Representative a summary of the project and potential encroachments. The Buckeye Field Representative will determine if any additional information such as pipeline depth of cover is necessary and if an application is required.

Application and Plan Submission –

SUBMIT APPLICATION AND PLANS TO:

Buckeye Partners, L.P.
ROW Department
Attn: Encroachment Review
6161 Hamilton Blvd.
Allentown, PA 18106

OR

encroachmentreviews@buckeye.com
With subject line reading
"Encroachment Review Application"

Buckeye requires a minimum of 60 days for technical review upon receipt of complete application with all relevant fees and complete and accurate design plans. Submission of plans electronically to the above email address is encouraged and acceptable, but signed application and fees must follow by mail.

Relocation or Modification – Should the initial encroachment review result in a determination that Buckeye facilities must be relocated or modified because of the request, additional review time may be required. A Feasibility Study will be performed to prepare a scope of work, cost estimate, schedule and project plan; the cost of which will be borne by a party or parties other than Buckeye and must be paid before the relocation or modification will commence. A Technical Services Agreement between Buckeye and the responsible entity will be prepared to specify the duties of each party. A Letter of No Objection or Encroachment Agreement will be issued which will authorize the construction of the proposed encroachment under certain terms and conditions.

Permission / Notification - A fully-executed Approval Letter, Encroachment Agreement, Reimbursement Agreement, and/or Technical Services Agreement is needed prior to construction. Buckeye must be notified 10-days prior to construction to allow for the scheduling of a Buckeye representative to be present. It is also the encroaching entity's responsibility to notify the owners of any other pipelines, communication lines, other third party property or facility owners located within the proposed project area and to secure any additional needed rights from these parties where Buckeye's rights are limited.

If construction of the aforementioned project does not commence within three calendar years of the issued approval letter date, the Crossing Party shall submit a new application and resubmission fee. The Company shall have the right to reconsider the conditions and privileges granted, and have full right to consider current policies and procedures at the time of resubmission.

APPLICATION FEES: A non-refundable Encroachment Application Fee must accompany all encroachment review requests for private development within Buckeye's right-of-way. Any request submitted without the required application fee, or that does not contain the specified information in the format requested on the application, may not be considered. Remit payment by check payable to: *Buckeye Partners, L.P.* Buckeye may require a developer to enter an agreement to pay any outside consultant costs that Buckeye deems necessary for a complete review of the proposed encroachment(s).

Initial Encroachment Application Fee is $3,000. Following initial review, all necessary plan resubmissions until plan approval shall be accompanied by a **Resubmission Fee** of **$750**.

Small Project Application Fee is $500. This reduced fee is reserved solely for single utility line service crossings or requests for installation of a fence or other residential-related improvement within Buckeye's pipeline easement.

Application for Design Plan Submission and Encroachment Review

PROJECT INFORMATION & LOCATION

BUCKEYE PARTNERS, L.P.

Project Title

Project Address　City　State　Zip Code

Latitude　Longitude　Municipality　County

APPLICANT INFORMATION: ____________________
Name and Title of Applicant

Company　Email Address　Phone Number

Address　City　State　Zip Code

LEGAL NAME OF INDIVIDUAL, COMPANY, OR ENTITY TO WHICH PERMISSION WILL BE GRANTED:

Name　Name and Title of authorized signatory for company or entity

Address　City　State　Zip Code

Email Address　Fax Number

PROJECT INVOLVES THE FOLLOWING IMPACTS TO BUCKEYE'S FACILITIES (CHECK ALL THAT APPLY):

- ☐ Cover, grading, and drainage pattern changes
- ☐ Aboveground and/or underground structures
- ☐ Road, driveway, sidewalks, and parking areas
- ☐ Utility crossings including gas, water (steam), sewer (storm/sanitary) – include trench backfill detail
- ☐ Electrical, fiber-optic, and communications cables
- ☐ Temporary access roads for the crossing of heavy/construction equipment
- ☐ Railroad crossings
- ☐ Farming and field tile
- ☐ Construction-induced vibrations
- ☐ Blasting operations (attach BLASTING PLAN)
- ☐ Seismic vibrating operations (attach SEISMIC VIBRATING PLAN)
- ☐ Exposure of the pipeline (attach SUPPORT PLAN)
- ☐ Boring, drilling, or tunneling near the pipeline (attach DRILL PLAN)
- ☐ Other: ____________________

APPLICATION MUST CONTAIN THE FOLLOWING:

- ☐ *Completed and Signed "Application for Design Plan Submission and Encroachment Review" Form*
- ☐ *Encroachment Application Fee** (see guidelines on page 1 of the application)*
- ☐ *Design Plans (1 paper copy, 1 electronic copy), depicting the following:*
  - ☐ Field-verified location of Buckeye pipeline(s) location and width of Buckeye's easement tract

Name of Buckeye Employee　____/____/____ **Date of Pipeline Locating Activity**　**Design One Call No.**

  - ☐ Field-verified depth of Buckeye pipeline(s) along all proposed road or utility crossings, drainage channels, and all other areas of proposed grade change within the pipeline right-of-way (attach a copy of any field data provided by Buckeye Representative)

Name of Buckeye Employee　____/____/____ **Date of Pipeline Depth Investigation**

  - ☐ Buckeye pipeline(s) labeled "_-inch High Pressure Petroleum Products Pipeline" (line type "-HPPPP-")
  - ☐ Buckeye included on Utilities List, and Local Contact and phone number on plans
  - ☐ Buckeye Pipeline(s) highlighted in yellow. List all plan sheets on which Buckeye facilities are located: ____________________
  - ☐ Location of ground disturbances (blasting, seismic testing, pile driving, jackhammering, etc. within 1,500 feet of Buckeye pipeline(s)
  - ☐ Proposed location(s) where construction equipment will cross the pipeline right-of-way
  - ☐ Structure setback distances from the pipeline right-of-way and from the nearest pipeline
  - ☐ Proposed landscaping within 25 feet of either side of the pipeline(s)
  - ☐ Any permanent fencing that will limit/encumber Buckeye's access to the pipeline right-of-way
  - ☐ If the drainage pattern will be altered in any way over the Buckeye pipeline(s), a drainage plan that identifies new flow paths and all inlet/outfall/collection points
  - ☐ Right-of-Way Use Restrictions specification pages 1-13 included as part of final design plan (can be done by adding a drawing sheet to plans and appending (cut and paste) the specification onto this sheet.

For property improvements that involve grade/pavement alterations, road work (new construction or improvements of existing), utility crossings (buried and overhead), or other subsurface or on-surface structure installations within Buckeye's right-of-way:

  - ☐ Separate plan and profile drawing of Buckeye pipeline(s) for existing and proposed conditions.
  - ☐ Subgrade details that show materials and thickness of each paving layer/course.
  - ☐ Amount of existing cover that will be removed or new cover added over the pipeline(s), and proposed final grade amount of cover over the pipeline(s).
  - ☐ Clearances between Buckeye's pipeline(s) and any existing and new (buried or overhead) utilities that cross the pipeline right-of-way.
  - ☐ Show the clearances between Buckeye's pipeline(s) and each proposed substructure at the two closest reference points.
  - ☐ For any utility to be installed via boring, drilling, or tunneling, include a detailed procedure of this work with your design plans. Note: "Blind" boring is not permitted. Buckeye's pipeline(s) must be exposed during the bore operation to ensure that the bore head crosses safely underneath the pipeline(s).

  - ☐ Indicate any areas of disturbance or other work that will require Buckeye's pipeline(s) to be exposed in order to perform your work.
- ☐ *Supplemental Plan Information (as applicable)*
  - ☐ Blasting Vibrating Plan
  - ☐ Seismic Vibrating Plan
  - ☐ Support Plan
  - ☐ Drill Plan

I hereby authorize Buckeye to contact the Engineer/Survey firm which prepared the drawings, survey and attachments.

I certify that the information provided is accurate and I realize that incomplete information may delay processing or invalidate this application.

Signature of Applicant

By: ____________________

Name: ____________________ Date: ________

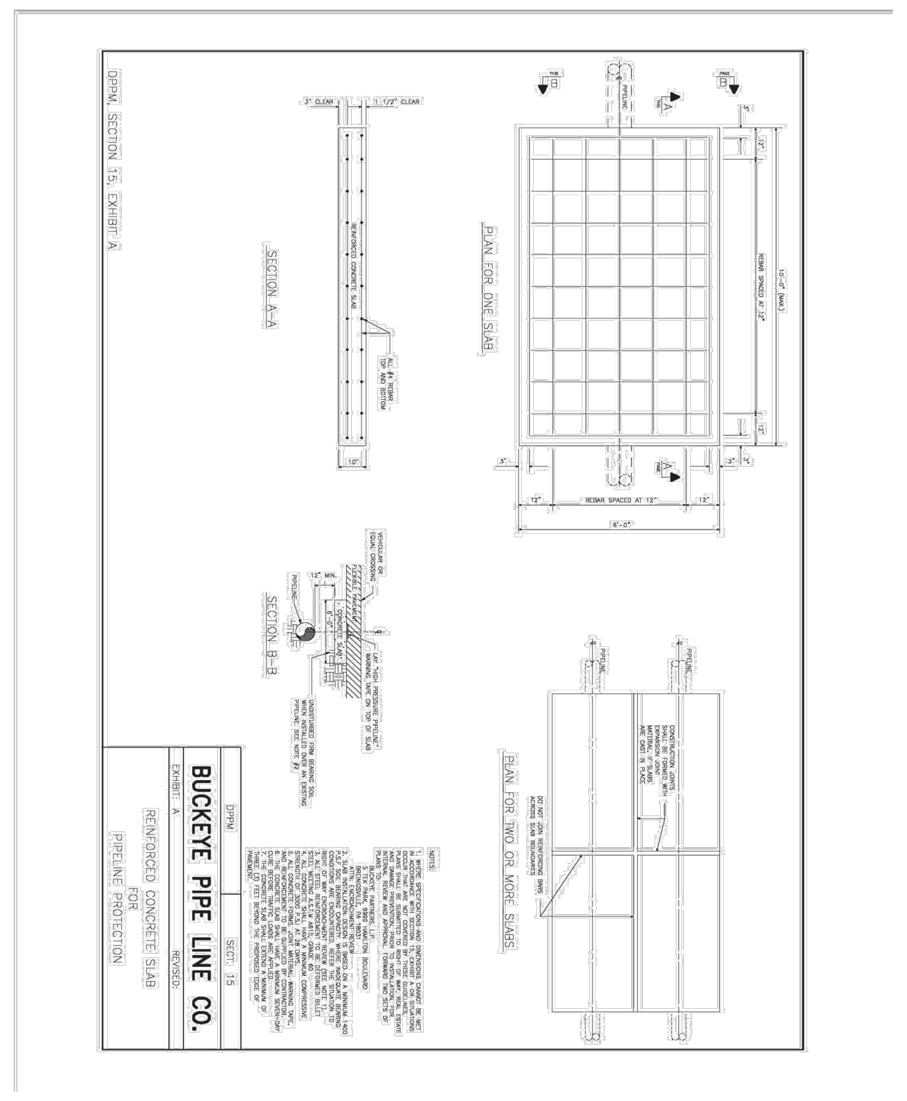
Title: ____________________

PAYMENT INFORMATION
(APPLICANT TO COMPLETE)

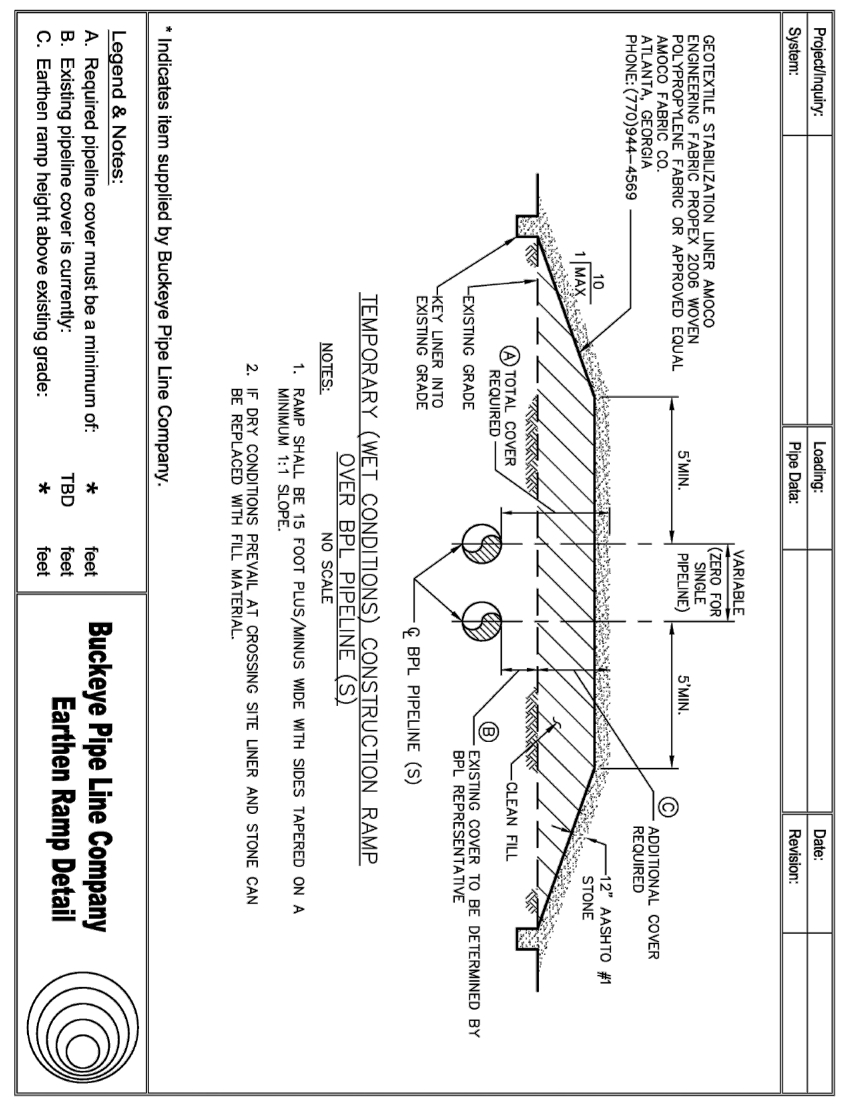
Check Number: ____________

Payment Amount: $____________

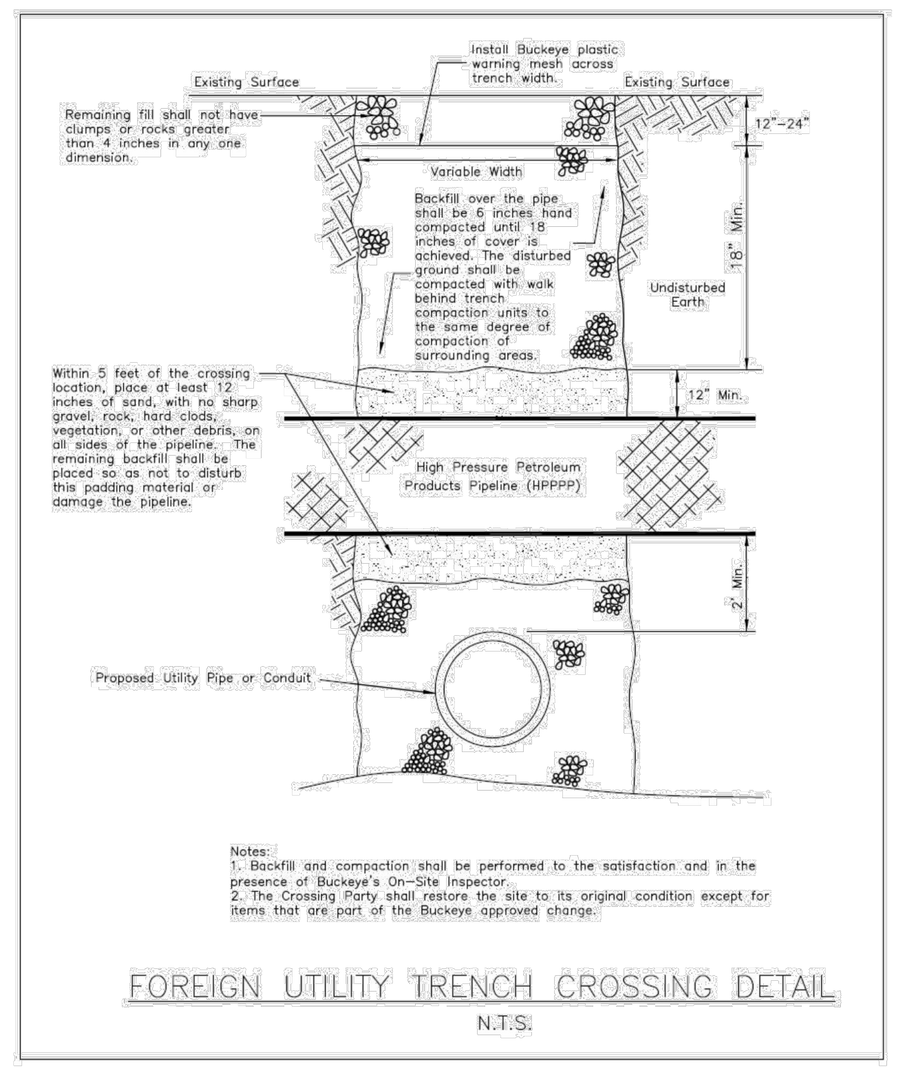
Attachment 5: Temporary Crossing Reinforced-Concrete Slab Detail



Attachment 6: Earthen Ramp Detail


TEMPORARY (WET CONDITIONS) CONSTRUCTION RAMP
OVER BPL PIPELINE(S)
NOTES:
Buckeye Pipe Line Company
Earthen Ramp Detail

Attachment 7: Foreign Utility Trench Crossing Detail


Install Buckeye plastic warning mesh across trench width.
Existing Surface
Existing Surface
Remaining fill shall not have clumps or rocks greater than 4 inches in any one dimension.
12"–24"
Variable Width
Backfill over the pipe shall be 6 inches hand compacted until 18 inches of cover is achieved. The disturbed ground shall be compacted with walk behind trench compaction units to the same degree of compaction of surrounding areas.
18" Min.
Undisturbed Earth
Within 5 feet of the crossing location, place at least 12 inches of sand, with no sharp gravel, rock, hard clods, vegetation, or other debris, on all sides of the pipeline. The remaining backfill shall be placed so as not to disturb this padding material or damage the pipeline.
12" Min.
High Pressure Petroleum Products Pipeline (HPPPP)
2' Min.
Proposed Utility Pipe or Conduit

Notes:
1. Backfill and compaction shall be performed to the satisfaction and in the presence of Buckeye's On-Site Inspector.
2. The Crossing Party shall restore the site to its original condition except for items that are part of the Buckeye approved change.

FOREIGN UTILITY TRENCH CROSSING DETAIL
N.T.S.

Attachment 8: Blasting Plan Submission Form

INFORMATION SECTION

Blasting Contractor -		**Contracted by -**	
Company Name:		Company Name:	
Phone:		Address:	
Email Address:			
Contact Person:		Contact Person:	

Project Name: ____________________

Address: ____________________

*Latitude: ____________

*Longitude: ____________

Location and Distance (in feet) to Nearest Buckeye Pipeline: ____________________

Date of Blasting: ____________

EXPLOSIVES SECTION

Type of Explosives: ____________

Max. Charge / Hole (lbs): ____________

Charge Delay (ms): ____________

No. of Holes: ____________

Max. Depth of Charge (ft): ____________

Max. Diameter of Charge (in): ____________

		Calculated Particle Velocity at a point -	
Depth of Blast Area (ft):		300 feet from blasting event (in/sec):	
Depth of Overburden (ft):		200 feet from blasting event (in/sec):	
Type of Rock to be Blasted:		100 feet from blasting event (in/sec):	
Density of Rock (lbs/cu-ft):		Directly above pipeline (in/sec):	____@__ ft.____

ATTACHMENT CHECKLIST

- ☐ Drilling/Blasting Pattern Sketch - include all depths, measurements, and delay patterns relative to Buckeye facility involved and each charge.
- ☐ State Approval Letter
- ☐ Blasting Contractor's Qualifications
- ☐ Blasting Contractor's Insurance Certificate
- ☐ Blasting Contractor's Safety Plan

OMMISSION OF ANY INFORMATION REQUESTED ABOVE WILL DELAY YOUR BLASTING PLAN REVIEW

Buckeye requires a minimum of 14 days for technical review upon receipt of complete and accurate blasting plans

Attachment 9: Excavation Safety Checklist

DPPM Section 7, FORM A – EXCAVATION SAFETY CHECKLIST

The information noted on this form is intended to communicate general information about our pipeline(s) and is not intended to be solely relied upon by any party for the purpose of excavation or any similar purpose.

By law, to enable all participating utilities time to mark their facilities, the **One Call Center** in your state requires notification by calling 811 prior to any excavation. Buckeye Partners, L.P. is a member of this One Call enterprise and will automatically be notified through this system. In addition, a Buckeye Pipeline and Terminal Protector will perform and/or review with the excavator representative the applicable checklist items below.

Pipeline Locate Activity:

- ☐ If plans are available, requested a copy of the written project plans and drawings for review with the excavator and/or engineer. Had the excavator and/or engineer explain the extent of the work area, location and depth of the excavation, type of proposed utilities, location of proposed utilities, number of utility crossings, etc.
- ☐ Established the pipeline(s) location and marked the line(s) per state One Call requirements throughout the entire work area.
- ☐ Photographed all established pipeline markings throughout the work area.

Communication with the Excavator and/or Engineer:

- ☐ **The excavator and/or engineer was advised that a Buckeye Pipeline and Terminal Protector must:**
  - ■ **Be a qualified Buckeye Pipeline and Terminal Protector.**
  - ■ **Monitor the excavation site daily when work is performed within 25 feet of a Buckeye pipeline.**
  - ■ **Observe continuously all excavation and backfill activity performed within 10 feet of a Buckeye pipeline or during the installation of any utility across a Buckeye pipeline facility.**
  - ■ **In addition, the excavator was instructed to call 800-331-4115 if they were ready to excavate within either above distance of a Buckeye pipeline and a Buckeye Pipeline and Terminal Protector was not present. When called a Buckeye Pipeline and Terminal Protector will be sent to perform the inspection, which is free of charge.**
- ☐ The excavator was advised that only backhoes or trackhoes with a steel plate welded across the teeth of the bucket are permitted to be used during excavation work around a Buckeye pipeline.
- ☐ The excavator was advised that the Buckeye Pipeline and Terminal Protector is required by law to perform an external inspection of any Buckeye pipeline exposed during excavation activity. The excavator understands that he/she is responsible as the qualified "Competent Person" who is designated to provide an OSHA compliant excavation under the requirements of 29 CFR Part 1926, Subpart P, ensuring the Buckeye Pipeline and Terminal Protector safe ingress and egress to and from the excavation to examine our exposed pipeline.
- ☐ Walked through the work area with the excavator and communicated the locations of all Buckeye pipelines in the planned work area.
- ☐ Discussed the number of pipelines, pipe size(s), approximate pressures, approximate depths, excavation tolerance zones, hand digging requirements, and the hazards and characteristics of product(s) in the pipeline system(s) located in the planned work area.
- ☐ The excavator was advised to call the One Call Center 811 or contact Buckeye, if the Buckeye markings are destroyed or need to be refreshed in the planned work area. This service is provided free of charge.
- ☐ The excavator was advised that before any exposed Buckeye pipeline can be backfilled, the Buckeye Pipeline and Terminal Protector will direct the placement of an orange warning mesh or yellow warning tape over the pipeline.
- ☐ The excavator was advised that **any contact** with the pipeline, pipeline coating, test station wiring, or anode beds **must be reported to Buckeye prior to backfilling the excavation** to permit further inspection of the damage to ensure continued safe pipeline operations.
- ☐ The excavator was advised that failure to comply with the conditions outlined above would result in Buckeye requiring the excavator to expose the pipeline again to allow an examination of the pipeline at the excavator's expense. If damage to the pipeline is discovered, Buckeye may seek monetary compensation for all repair costs. Buckeye may also report this activity to all concerned parties (State One Call Center, Regulatory Agencies, Principal Contractor, Excavator's Insurance Company, etc.).

If you are unable to reach the Buckeye Pipeline and Terminal Protector designated below, or **in case of an emergency,** request assistance as follows:
For excavation activities in IL, IN, MI, MO, NJ, NY, OH, PA, or WI, please call 1-800-331-4115.
For excavation activities in CT, FL, IA, LA, MA, ME, NV, TN, TX, or Southern California, please call 1-866-514-8380.
For excavation activities in Northern California, please call 1-800-307-1107.

One Call Ticket:		**Line Segments:**		
Work Order:		**Mile Posts:**		
Address				

Buckeye Information		**Property Owner / Excavator /Engineer**	
Date:		**Name:**	
Name:		**Phone:**	
Cell Phone:		**Signature:**	

Sheet Number:
18 of 40

Project Number:
15–100–34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

CONSTRUCTION DETAILS

Project Manager: DAVID B. KEGERIZE PE	Drafting: W ALLEN
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: AS NOTED

Seal:

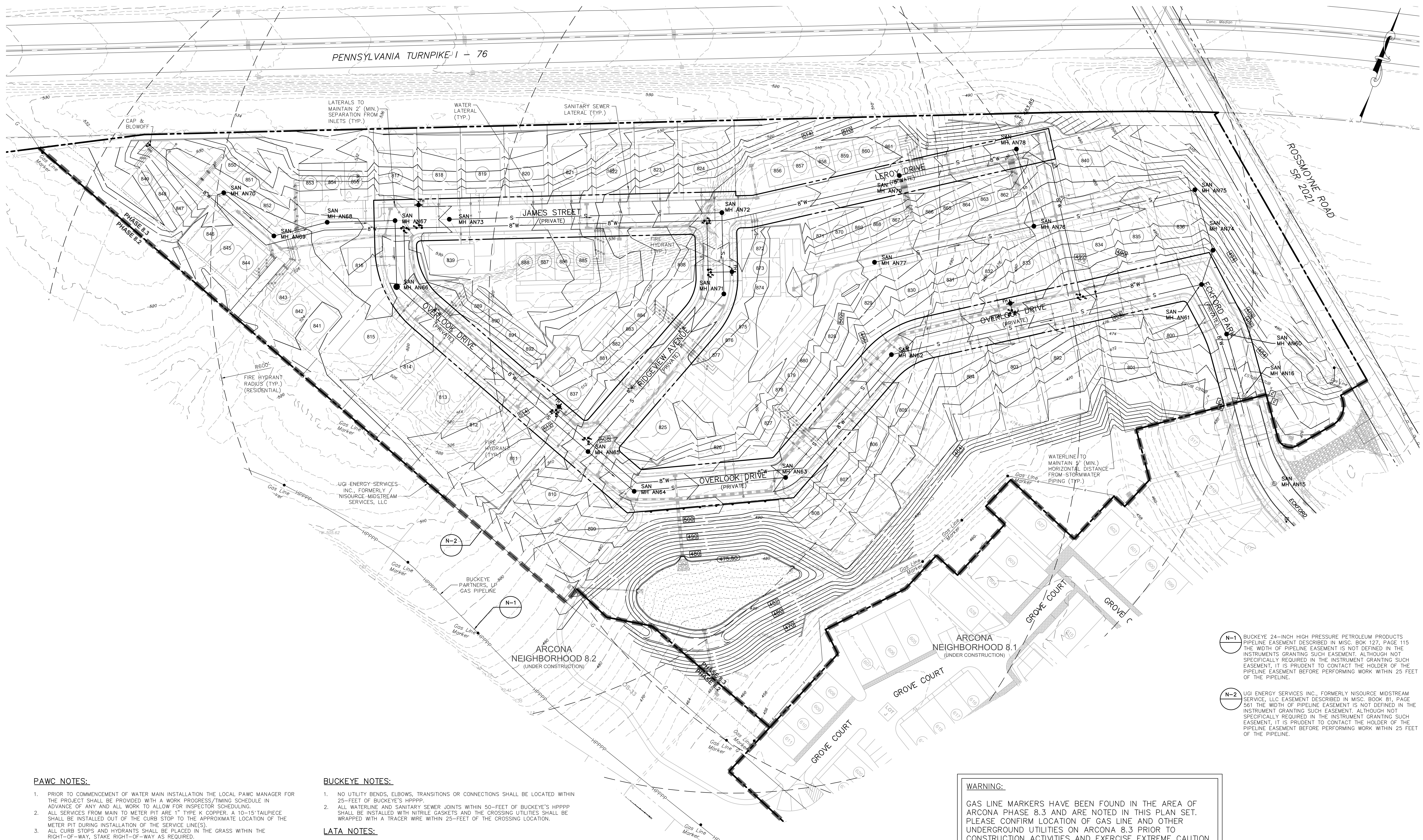
TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
CD–4

1/21/2025 12:54 PM　L:\15–100–34\SHEETS\PRELIMINARY\18 CD–04.DWG

PRELIMINARY / FINAL


PENNSYLVANIA TURNPIKE I – 76
ROSSMOYNE ROAD SR 2021
LATERALS TO MAINTAIN 2' (MIN.) SEPARATION FROM INLETS (TYP.)
WATER LATERAL (TYP.)
SANITARY SEWER LATERAL (TYP.)
CAP & BLOWOFF
JAMES STREET (PRIVATE)
LEROY DRIVE (PRIVATE)
OVERLOOK DRIVE (PRIVATE)
RIDGEVIEW AVENUE (PRIVATE)
ECKFORD PARK (PRIVATE)
FIRE HYDRANT (TYP.)
FIRE HYDRANT RADIUS (TYP.) (RESIDENTIAL)
R600'
WATERLINE TO MAINTAIN 5' (MIN.) HORIZONTAL DISTANCE FROM STORMWATER PIPING (TYP.)
UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICES, LLC
BUCKEYE PARTNERS, LP GAS PIPELINE
Gas Line Marker
PHASE 8.3
PHASE 8.2
ARCONA NEIGHBORHOOD 8.2 (UNDER CONSTRUCTION)
ARCONA NEIGHBORHOOD 8.1 (UNDER CONSTRUCTION)
GROVE COURT
N–1
N–2
8"W
SAN MH AN15
SAN MH AN16
SAN MH AN60
SAN MH AN61
SAN MH AN62
SAN MH AN63
SAN MH AN64
SAN MH AN65
SAN MH AN66
SAN MH AN67
SAN MH AN68
SAN MH AN69
SAN MH AN70
SAN MH AN71
SAN MH AN72
SAN MH AN73
SAN MH AN74
SAN MH AN75
SAN MH AN76
SAN MH AN77
SAN MH AN78
SAN MH AN79

N–1 BUCKEYE 24–INCH HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE EASEMENT DESCRIBED IN MISC. BOK 127, PAGE 115 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENTS GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

N–2 UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICE, LLC EASEMENT DESCRIBED IN MISC. BOOK 81, PAGE 561 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENT GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

PAWC NOTES:

1. PRIOR TO COMMENCEMENT OF WATER MAIN INSTALLATION THE LOCAL PAWC MANAGER FOR THE PROJECT SHALL BE PROVIDED WITH A WORK PROGRESS/TIMING SCHEDULE IN ADVANCE OF ANY AND ALL WORK TO ALLOW FOR INSPECTOR SCHEDULING.
2. ALL SERVICES FROM MAIN TO METER PIT ARE 1" TYPE K COPPER. A 10–15'TAILPIECE SHALL BE INSTALLED OUT OF THE CURB STOP TO THE APPROXIMATE LOCATION OF THE METER PIT DURING INSTALLATION OF THE SERVICE LINE(S).
3. ALL CURB STOPS AND HYDRANTS SHALL BE PLACED IN THE GRASS WITHIN THE RIGHT–OF–WAY, STAKE RIGHT–OF–WAY AS REQUIRED.
4. THRUST BLOCKS ARE REQUIRED FOR ALL BLOW–OFFS, TEES, BENDS, AND HYDRANTS OR AS APPROVED BY PAWC INSPECTOR.
5. LOCKING RUBBERS ARE REQUIRED AT THE DIRECTION OF PAWC INSPECTOR.
6. ALL HYDRANTS SHALL BE MANUFACTURED WITH STORZ CONNECTION(S), FIELD INSTALLED STORZ CONNECTION(S) WILL NOT BE ACCEPTED.
7. ALL HYDRANTS SHALL BE MANUFACTURED WITH THE APPROPRIATE COLOR. YELLOW FOR ALL PUBLIC HYDRANTS AND RED FOR ALL PRIVATE HYDRANTS.
8. ALL HYDRANTS ARE TO OPEN LEFT.
9. ALL VALVES ARE TO OPEN LEFT.
10. INSTALLATION OF 11¼"BENDS ARE ONLY REQUIRED IF DEFLECTION OF THE PIPE CAN'T BE ACHIEVED, CONSULT PAWC INSPECTOR PRIOR TO A BEND BEING OMITTED.
11. INSTALLATION OF WATER MAIN SHALL BE INSTALLED PER THE APPROVED PAWC PLAN STARTING AT THE TAP OR TIE–IN POINT. DEVIATION FROM THIS SHALL BE COORDINATED DIRECTLY WITH FIELD OPS SUPERVISOR.
12. NO SERVICES SHALL BE INSTALLED UNTIL THE WATER HAS PASSED ALL REQUIRED TESTING.
13. ALL VALVE BOX TOPS SHALL BE SET TO THE STREET PAVEMENT BASE COURSE ELEVATION. PRIOR TO THE INSTALLATION OF THE PAVEMENT WEARING COURSE, VALVE BOX RISERS SHALL BE INSTALLED AT THE DIRECTION OF THE PAWC INSPECTOR. ALL VALVE BOX TOPS AND LIDS DAMAGED PRIOR TO THE INSTALLATION OF THE WEARING COURSE ARE THE RESPONSIBILITY OF THE DEVELOPER.

BUCKEYE NOTES:

1. NO UTILITY BENDS, ELBOWS, TRANSITIONS OR CONNECTIONS SHALL BE LOCATED WITHIN 25–FEET OF BUCKEYE'S HPPPP.
2. ALL WATERLINE AND SANITARY SEWER JOINTS WITHIN 50–FEET OF BUCKEYE'S HPPPP SHALL BE INSTALLED WITH NITRILE GASKETS AND THE CROSSING UTILITIES SHALL BE WRAPPED WITH A TRACER WIRE WITHIN 25–FEET OF THE CROSSING LOCATION.

LATA NOTES:

1. ALL SANITARY SEWER LATERALS ARE 6" SDR 35.
2. SANITARY SEWER CLEANOUTS ARE NOT PERMITTED IN SIDEWALKS.
3. THE SITE SHALL BE GRADED TO THE PROPOSED NEW SUB–GRADE ELEVATION PRIOR TO STARTING SEWER LINE CONSTRUCTION.
4. THE PROPERTY OWNER IS RESPONSIBLE FOR FINAL SURFACE RESTORATION AFTER AUTHORITY FUTURE SEWER MAINTENANCE AND BACKFILL TO SUB–GRADE.
5. EXISTING SEWER MAIN FLOW AND SERVICE SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE A WORK PLAN PRIOR TO STARTING SEWER CONSTRUCTION THAT SHOWS HOW FLOW WILL BE MAINTAINED.
6. ALL CLEANOUTS LOCATED IN OPEN SPACE AREAS SHALL HAVE HEAVY DUTY FRAME AND COVER, (SEE B\UT–2).
7. SANITARY SEWER MANHOLES IN GRASSED AREAS SHALL HAVE WATER TIGHT FRAME AND COVERS. (SEE F\UT–2).
8. ECKFORD PARK (EXTENDED) AND ALL OTHER CARTWAYS SHOWN IN PHASE 8.3 WILL BE PRIVATE OWNED AND MAINTAINED BY THE NEIGHBORHOOD ASSOCIATION.
9. MAINTENANCE AND REPAIR OF SANITARY SEWER LATERALS OFF SANITARY SEWER MAINS WITHIN ARCONA NEIGHBORHOOD 8.3 WILL BE THE RESPONSIBILITY OF THE INDIVIDUAL LOT OWNERS. THE NEIGHBORHOOD ASSOCIATION IS RESPONSIBLE FOR MAINTENANCE AND REPAIR OF SEWER LATERALS TO ALL TOWNHOUSE DWELLINGS.

WARNING:

GAS LINE MARKERS HAVE BEEN FOUND IN THE AREA OF ARCONA PHASE 8.3 AND ARE NOTED IN THIS PLAN SET. PLEASE CONFIRM LOCATION OF GAS LINE AND OTHER UNDERGROUND UTILITIES ON ARCONA 8.3 PRIOR TO CONSTRUCTION ACTIVITIES AND EXERCISE EXTREME CAUTION WHEN EXCAVATING WITHIN OPEN SPACE 35 SECTIONS OF THE SITE.

Sheet Number:
19 of 40

Project Number:
15–100–34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

UTILITY PLAN

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: 1"=50'

0 25 50 100 150

Seal:
G. MITCHELL KING
ENGINEER
No. PE36683-E
1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
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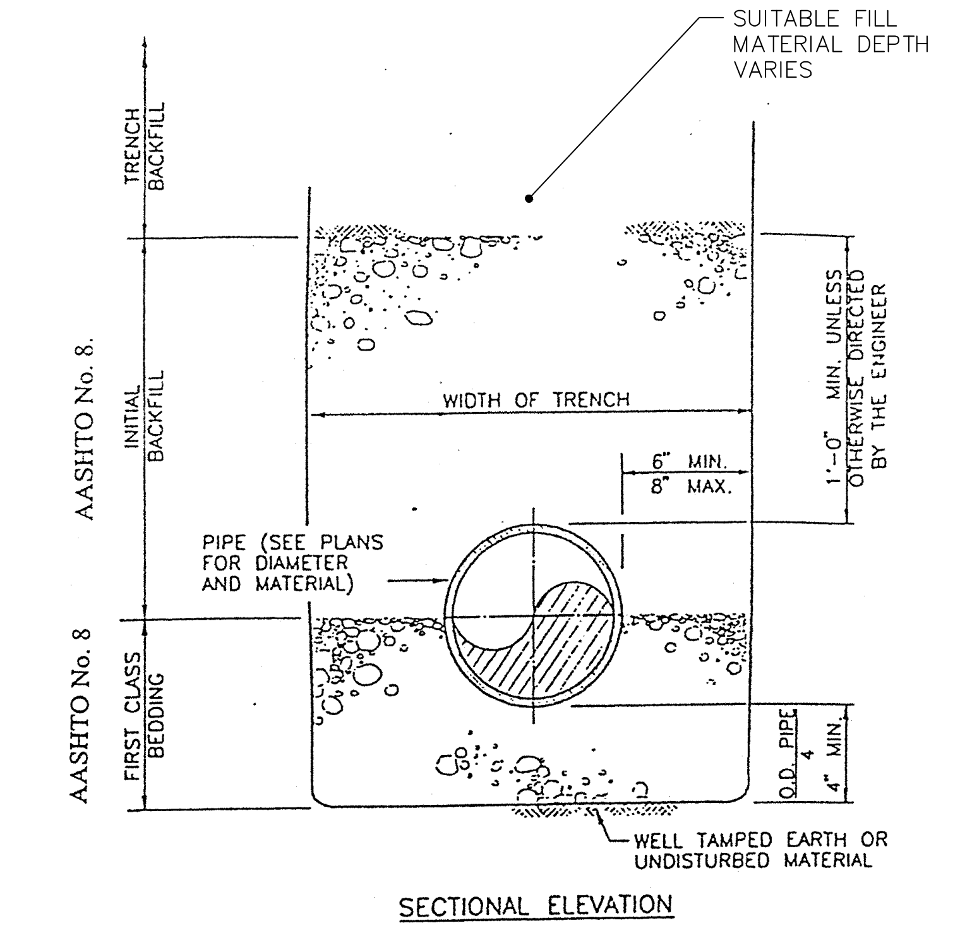
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
UT–1

3/7/2025 4:10 PM L:\15–100–34\SHEETS\PRELIMINARY\19 UT–01.DWG

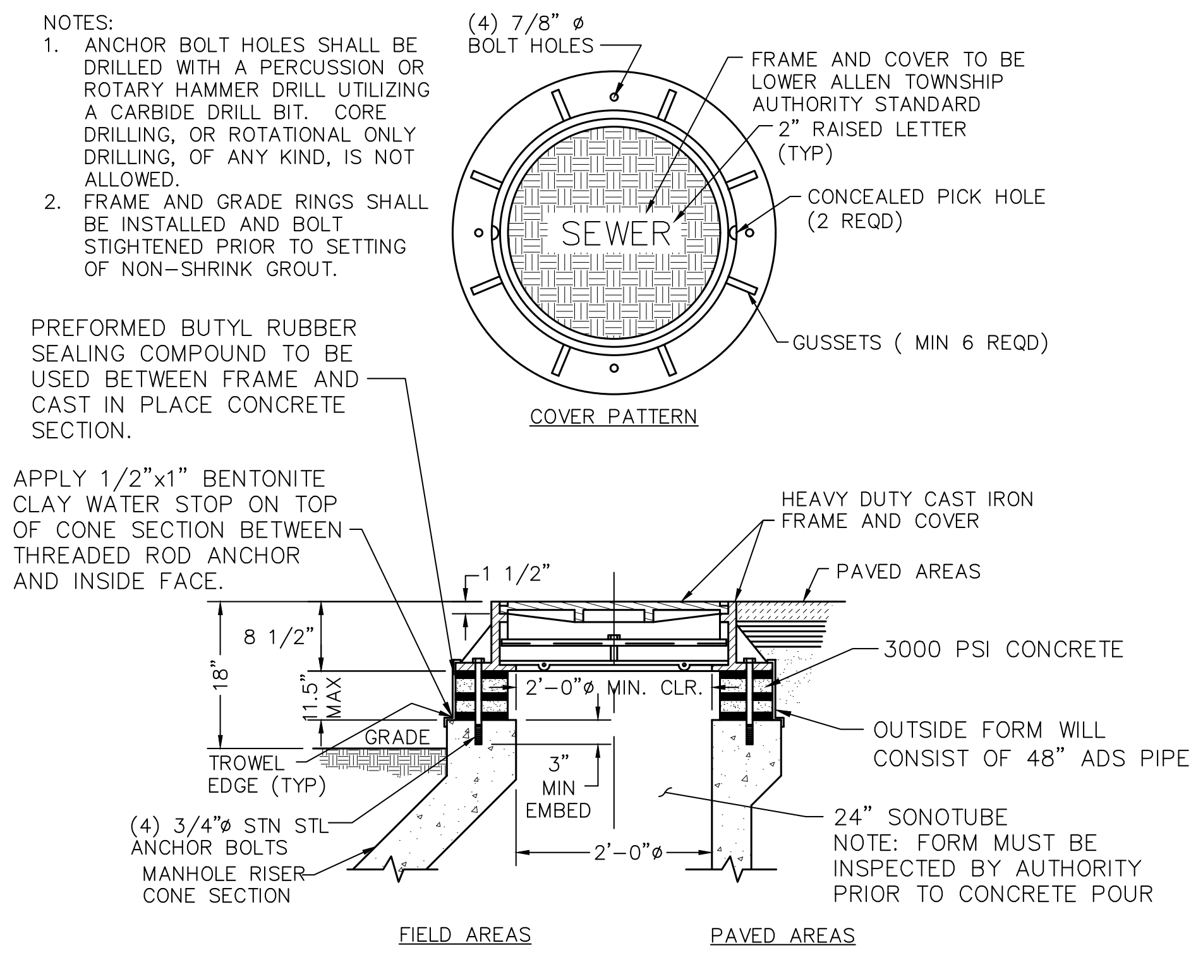
PRELIMINARY / FINAL


SUITABLE FILL MATERIAL DEPTH VARIES
TRENCH BACKFILL
INITIAL BACKFILL
AASHTO No. 8
WIDTH OF TRENCH
12" MIN. UNLESS OTHERWISE DIRECTED BY THE ENGINEER
6" MIN.
8" MAX.
PIPE (SEE PLANS FOR DIAMETER AND MATERIAL)
FIRST CLASS BEDDING
AASHTO No. 8
O.D. PIPE
4" MIN.
WELL TAMPED EARTH OR UNDISTURBED MATERIAL
SECTIONAL ELEVATION

A / UT-2 FIRST CLASS BEDDING AND INITIAL BACKFILL PIPE BEDDING

NOT TO SCALE

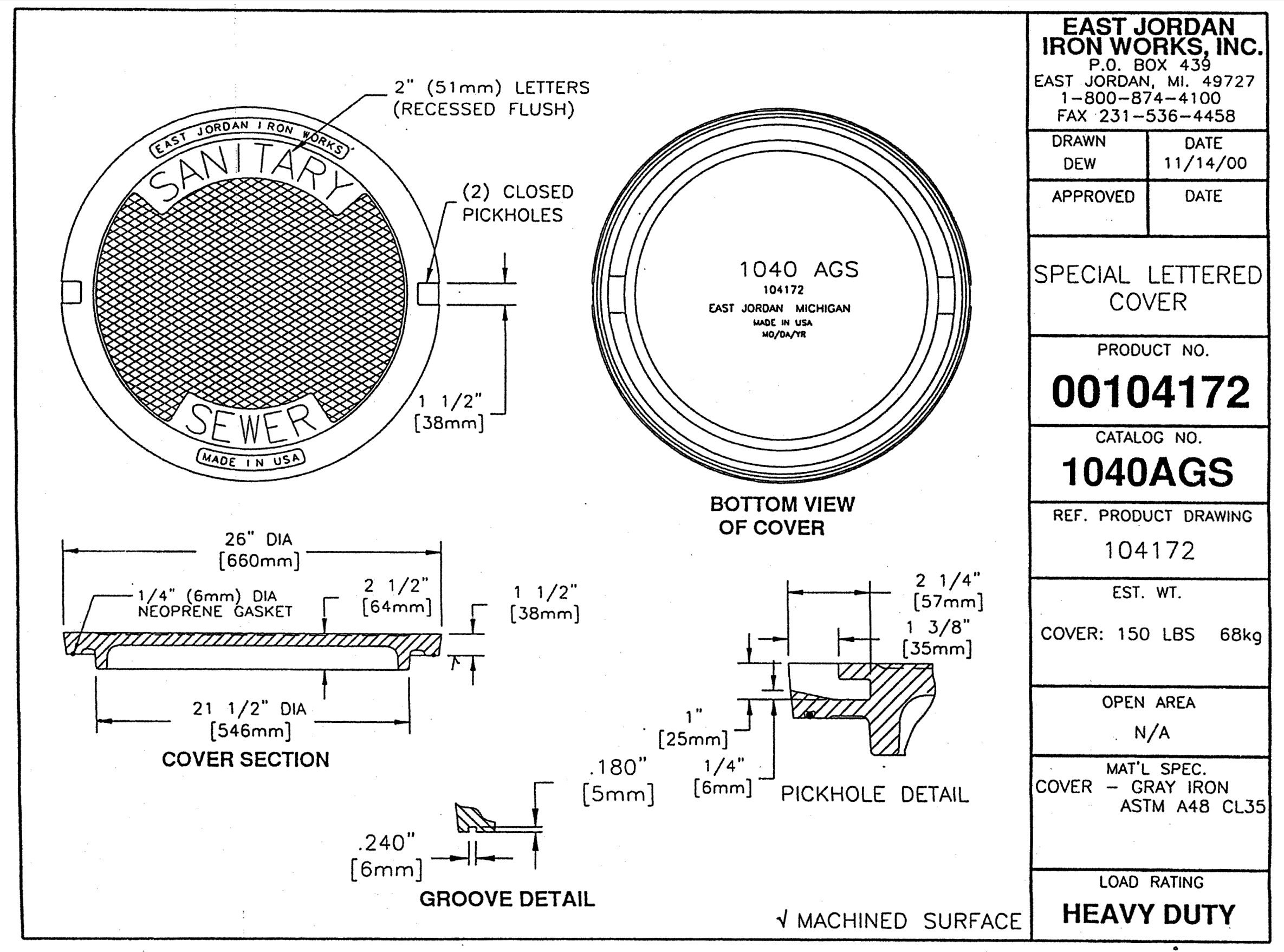
NOTES:
1. ANCHOR BOLT HOLES SHALL BE DRILLED WITH A PERCUSSION OR ROTARY HAMMER DRILL UTILIZING A CARBIDE DRILL BIT. CORE DRILLING, OR ROTATIONAL ONLY DRILLING, OF ANY KIND, IS NOT ALLOWED.
2. FRAME AND GRADE RINGS SHALL BE INSTALLED AND BOLT STIGHTENED PRIOR TO SETTING OF NON-SHRINK GROUT.


(4) 7/8" ø BOLT HOLES
FRAME AND COVER TO BE LOWER ALLEN TOWNSHIP AUTHORITY STANDARD
2" RAISED LETTER (TYP)
SEWER
CONCEALED PICK HOLE (2 REQD)
GUSSETS (MIN 6 REQD)
COVER PATTERN
PREFORMED BUTYL RUBBER SEALING COMPOUND TO BE USED BETWEEN FRAME AND CAST IN PLACE CONCRETE SECTION.
APPLY 1/2"x1" BENTONITE CLAY WATER STOP ON TOP OF CONE SECTION BETWEEN THREADED ROD ANCHOR AND INSIDE FACE.
HEAVY DUTY CAST IRON FRAME AND COVER
1 1/2"
PAVED AREAS
8 1/2"
18"
11.5" MAX
2'-0"ø MIN. CLR.
3000 PSI CONCRETE
GRADE
TROWEL EDGE (TYP)
3" MIN EMBED
OUTSIDE FORM WILL CONSIST OF 48" ADS PIPE
(4) 3/4"ø STN STL ANCHOR BOLTS
MANHOLE RISER CONE SECTION
2'-0"ø
24" SONOTUBE
NOTE: FORM MUST BE INSPECTED BY AUTHORITY PRIOR TO CONCRETE POUR
FIELD AREAS
PAVED AREAS

NOTE:
WHEN SUPERELEVATION OR CARTWAY SLOPE IS TOO AGGRESSIVE FOR STANDARD PRE-CAST RISERS, THIS DETAIL IS APPLICABLE IN WHICH MODIFICATION OF SLOPE CAN BE GAINED THROUGH THE ADJUSTMENT OF THE THREADED ROD TO ACHIEVE FINISHED GRADE.

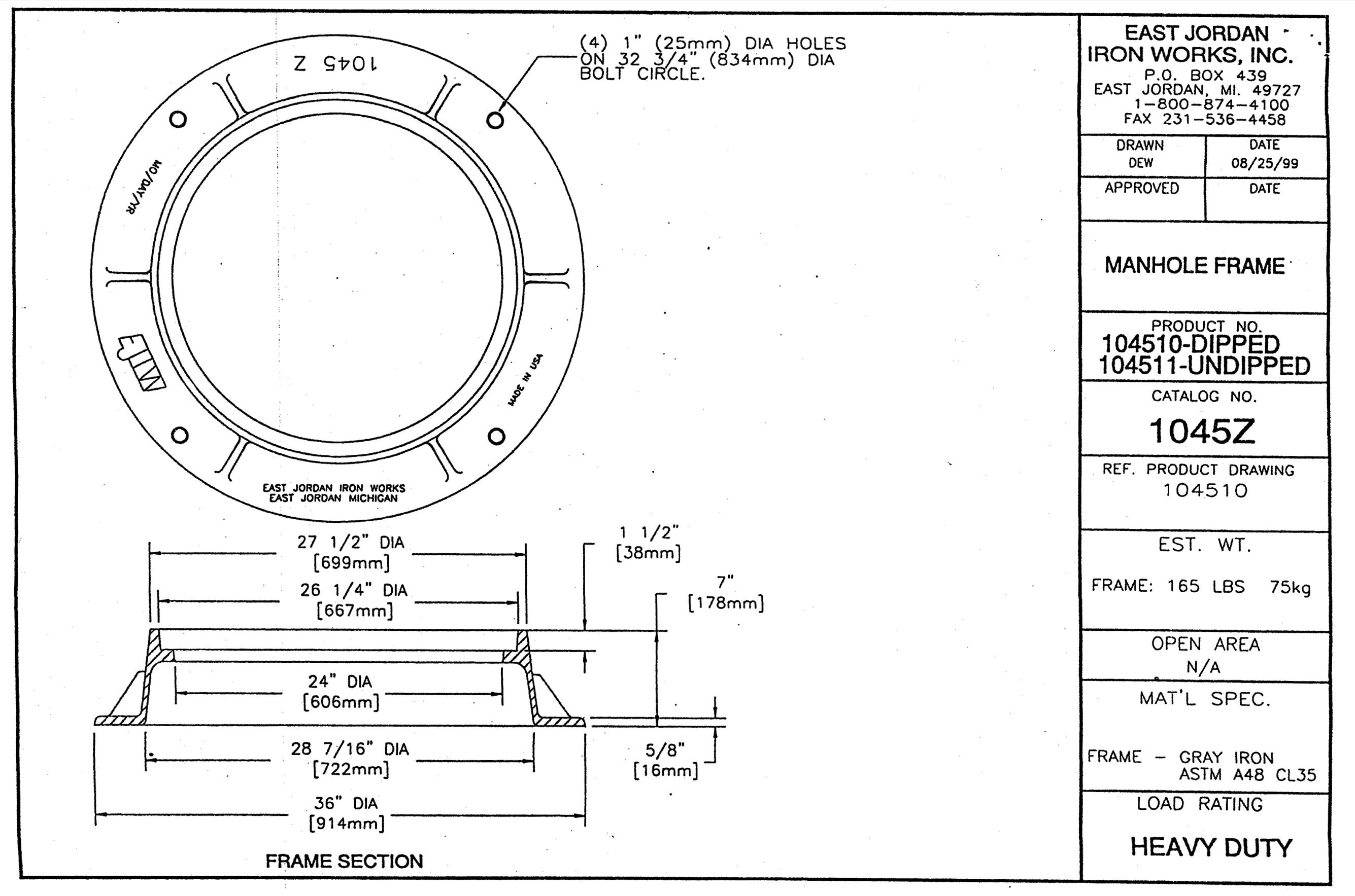
M / UT-2 MANHOLE FRAME & COVER

NOT TO SCALE


2" (51mm) LETTERS (RECESSED FLUSH)
EAST JORDAN IRON WORKS
SANITARY
SEWER
MADE IN USA
(2) CLOSED PICKHOLES
1 1/2" [38mm]
1040 AGS
104172
EAST JORDAN MICHIGAN
MADE IN USA
MO/DA/YR
BOTTOM VIEW OF COVER
26" DIA [660mm]
1/4" (6mm) DIA NEOPRENE GASKET
2 1/2" [64mm]
1 1/2" [38mm]
21 1/2" DIA [546mm]
COVER SECTION
2 1/4" [57mm]
1 3/8" [35mm]
1" [25mm]
1/4" [6mm]
.180" [5mm]
PICKHOLE DETAIL
.240" [6mm]
GROOVE DETAIL
√ MACHINED SURFACE
EAST JORDAN IRON WORKS, INC.
P.O. BOX 439
EAST JORDAN, MI. 49727
1-800-874-4100
FAX 231-536-4458
DRAWN DEW
DATE 11/14/00
APPROVED
DATE
SPECIAL LETTERED COVER
PRODUCT NO. 00104172
CATALOG NO. 1040AGS
REF. PRODUCT DRAWING 104172
EST. WT. COVER: 150 LBS 68kg
OPEN AREA N/A
MAT'L SPEC. COVER – GRAY IRON ASTM A48 CL35
LOAD RATING HEAVY DUTY

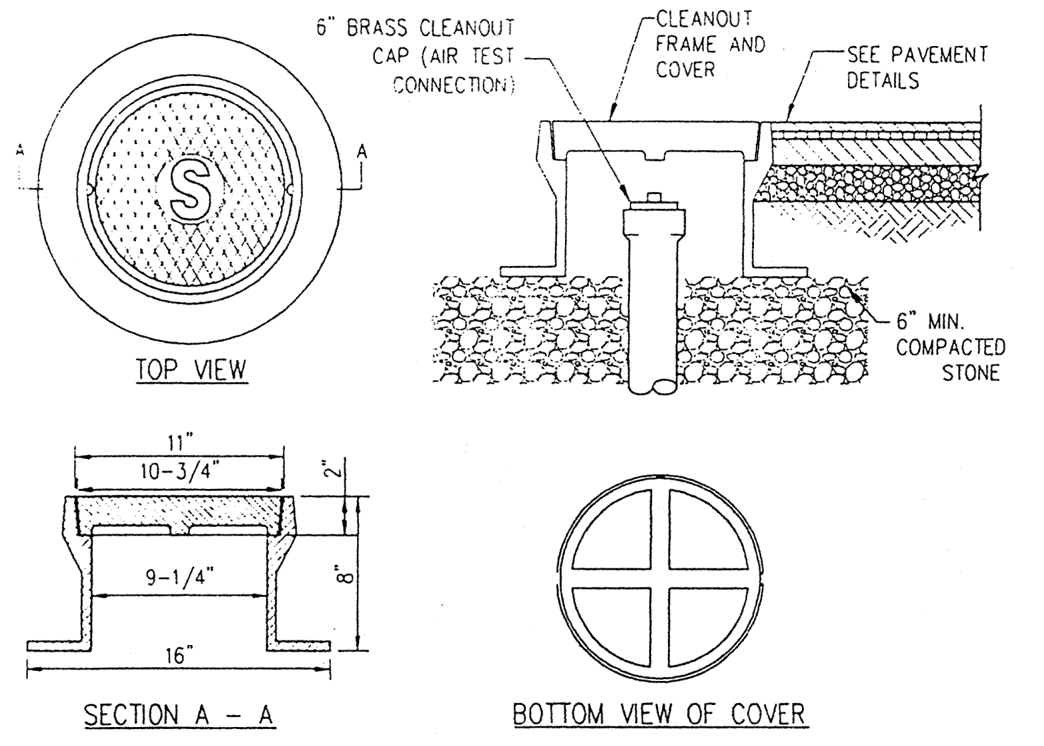
E / UT-2 MANHOLE FRAME AND COVER

NOT TO SCALE


1045 Z
(4) 1" (25mm) DIA HOLES ON 32 3/4" (834mm) DIA BOLT CIRCLE.
MO/DAY/YR
EJIW
MADE IN USA
EAST JORDAN IRON WORKS
EAST JORDAN MICHIGAN
27 1/2" DIA [699mm]
26 1/4" DIA [667mm]
1 1/2" [38mm]
7" [178mm]
24" DIA [606mm]
28 7/16" DIA [722mm]
5/8" [16mm]
36" DIA [914mm]
FRAME SECTION
EAST JORDAN IRON WORKS, INC.
P.O. BOX 439
EAST JORDAN, MI. 49727
1-800-874-4100
FAX 231-536-4458
DRAWN DEW
DATE 08/25/99
APPROVED
DATE
MANHOLE FRAME
PRODUCT NO. 104510-DIPPED 104511-UNDIPPED
CATALOG NO. 1045Z
REF. PRODUCT DRAWING 104510
EST. WT. FRAME: 165 LBS 75kg
OPEN AREA N/A
MAT'L SPEC. FRAME – GRAY IRON ASTM A48 CL35
LOAD RATING HEAVY DUTY

G / UT-2 MANHOLE FRAME

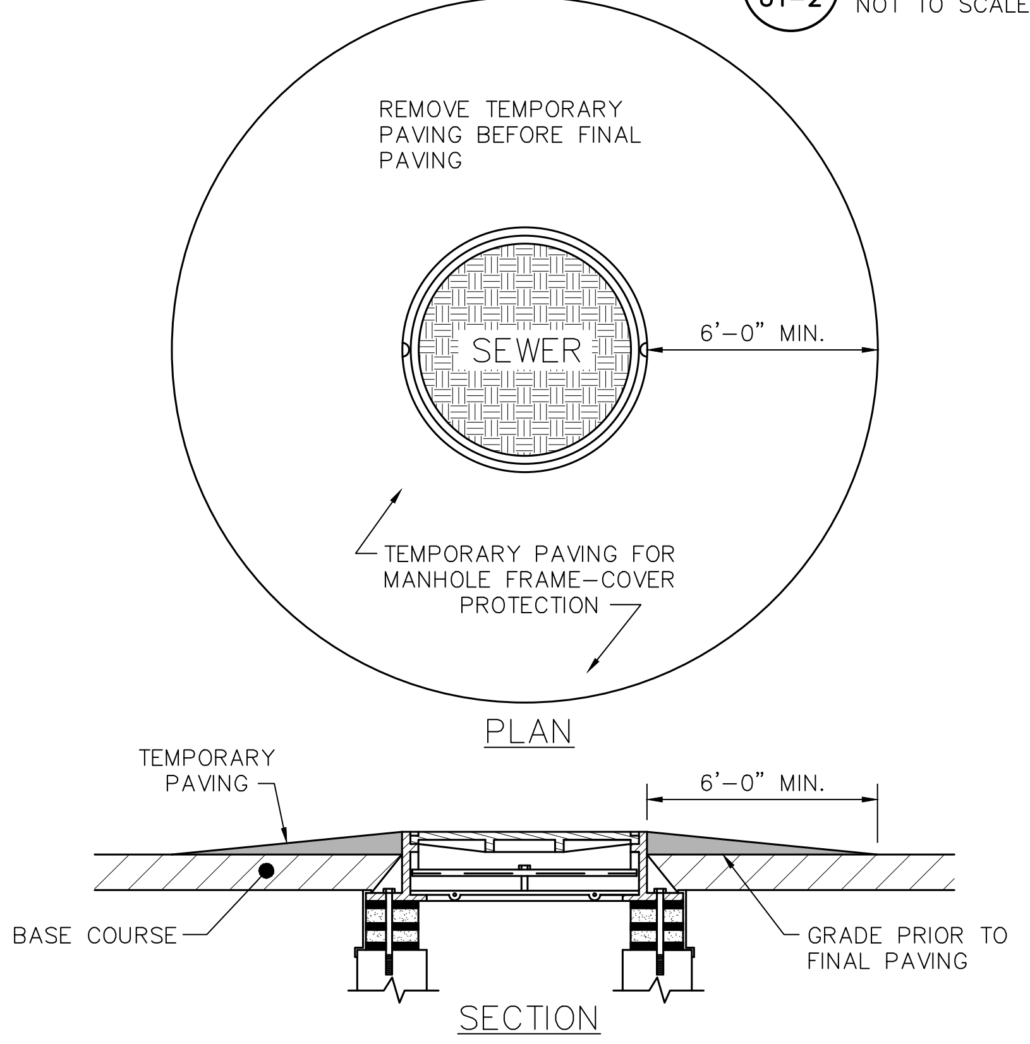
NOT TO SCALE


6" BRASS CLEANOUT CAP (AIR TEST CONNECTION)
CLEANOUT FRAME AND COVER
SEE PAVEMENT DETAILS
A
S
A
6" MIN. COMPACTED STONE
TOP VIEW
11"
10-3/4"
9-1/4"
8"
16"
SECTION A – A
BOTTOM VIEW OF COVER

NOTES:
1. ALL GRAY IRON SHALL CONFORM TO ASTM A-48, CLASS 30 AND SHALL BE OF UNIFORM QUALITY.
2. ALL CASTING DIMENSIONS SHALL HAVE A TOLERANCE OF 1/8"±.
3. ALL CASTINGS SHALL BE CLEANED BY SHOT BLASTING AND HAND CHIPPING USING STANDARD INDUSTRY PRACTICES PRIOR TO SHOP APPLICATION OF ASPHALTIC COATING, BY DIPPING.
4. FRAME AND COVER SHALL BE H-20 HIGHWAY LOAD RATED FOR PARKING LOTS, ETC.

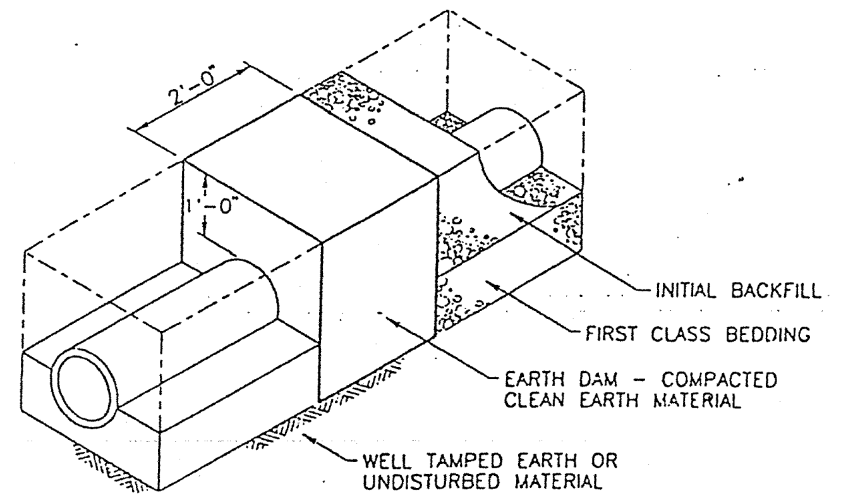
B / UT-2 HEAVY DUTY CLEANOUT FRAME AND COVER

NOT TO SCALE


REMOVE TEMPORARY PAVING BEFORE FINAL PAVING
SEWER
6'-0" MIN.
TEMPORARY PAVING FOR MANHOLE FRAME-COVER PROTECTION
PLAN
TEMPORARY PAVING
6'-0" MIN.
BASE COURSE
GRADE PRIOR TO FINAL PAVING
SECTION

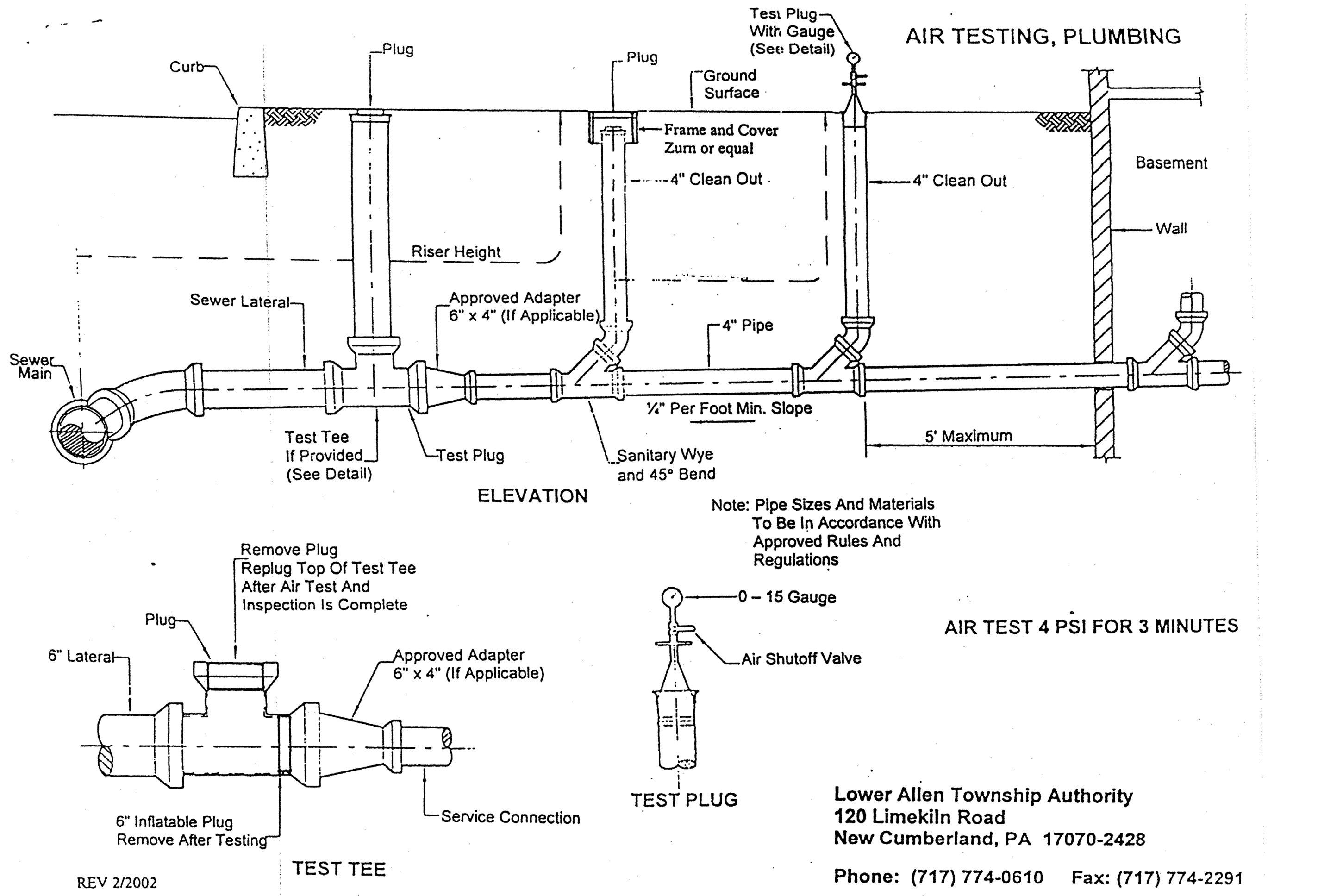
O / UT-2 MANHOLE FRAME/COVER PROTECTION DETAIL PRIOR TO FINAL PAVING

NOT TO SCALE


2'-0"
1'-0"
INITIAL BACKFILL
FIRST CLASS BEDDING
EARTH DAM – COMPACTED CLEAN EARTH MATERIAL
WELL TAMPED EARTH OR UNDISTURBED MATERIAL

D / UT-2 EARTH DAM

NOT TO SCALE


Curb
Plug
Plug
Ground Surface
Test Plug With Gauge (See Detail)
AIR TESTING, PLUMBING
Frame and Cover Zurn or equal
4" Clean Out
4" Clean Out
Basement
Wall
Riser Height
Sewer Lateral
Approved Adapter 6" x 4" (If Applicable)
4" Pipe
Sewer Main
Test Tee If Provided (See Detail)
Test Plug
Sanitary Wye and 45° Bend
¼" Per Foot Min. Slope
5' Maximum
ELEVATION
Remove Plug Replug Top Of Test Tee After Air Test And Inspection Is Complete
Plug
6" Lateral
Approved Adapter 6" x 4" (If Applicable)
6" Inflatable Plug Remove After Testing
Service Connection
TEST TEE
0 – 15 Gauge
Air Shutoff Valve
TEST PLUG
REV 2/2002

Note: Pipe Sizes And Materials To Be In Accordance With Approved Rules And Regulations

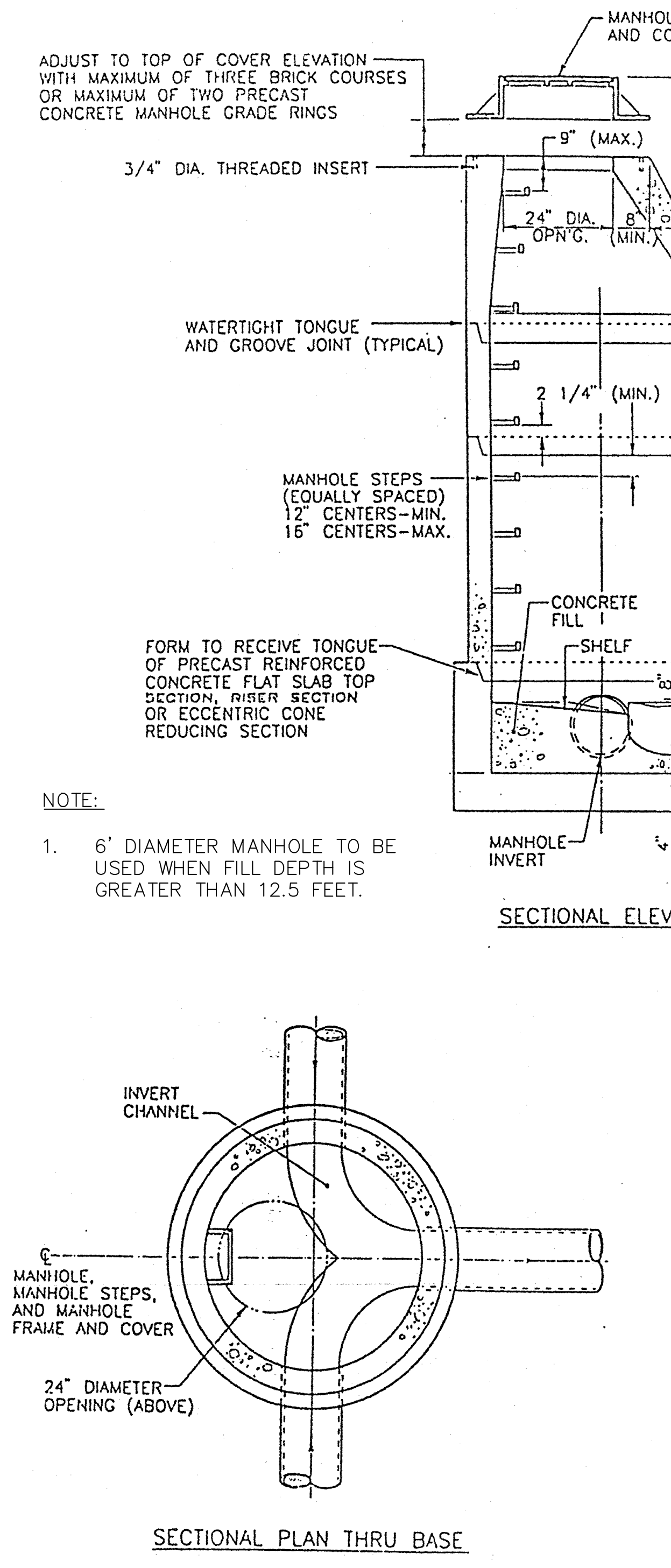
AIR TEST 4 PSI FOR 3 MINUTES

Lower Allen Township Authority
120 Limekiln Road
New Cumberland, PA 17070-2428

Phone: (717) 774-0610 Fax: (717) 774-2291

H / UT-2 SANITARY SEWER LATERAL DETAILS

NOT TO SCALE


MANHOLE FRAME AND COVER
ADJUST TO TOP OF COVER ELEVATION WITH MAXIMUM OF THREE BRICK COURSES OR MAXIMUM OF TWO PRECAST CONCRETE MANHOLE GRADE RINGS
9" (MAX.)
3/4" DIA. THREADED INSERT
3'-9" (MIN.) FOR 4'-0"ø
6'-9" (MIN.) FOR 5'-0"ø
7'-9" (MIN.) FOR 6'-0"ø
24" DIA. OPN'G.
8" (MIN.)
PRECAST REINFORCED CONCRETE
ECCENTRIC CONE TOP FOR 4'-0" DIA. MANHOLE
FLAT TOP FOR 5'-0" & 6'-0" DIA. MANHOLE
WATERTIGHT TONGUE AND GROOVE JOINT (TYPICAL)
2 1/4" (MIN.)
5" (MIN.) FOR 4'-0"ø
6" (MIN.) FOR 5'-0"ø
7" (MIN.) FOR 6'-0"ø
MANHOLE STEPS (EQUALLY SPACED) 12" CENTERS-MIN. 16" CENTERS-MAX.
PRECAST REINFORCED CONCRETE RISER SECTION
CONCRETE FILL
SHELF
3" (MIN.)
FORM TO RECEIVE TONGUE OF PRECAST REINFORCED CONCRETE FLAT SLAB TOP SECTION, RISER SECTION OR ECCENTRIC CONE REDUCING SECTION
8" (MIN.)
PIPE DIAMETER AND MATERIAL AS SHOWN ON PLANS (TYPICAL)
WELL TAMPED EARTH OR UNDISTURBED MATERIAL
MANHOLE INVERT
4" (MIN.)
SECTIONAL ELEVATION
INVERT CHANNEL
MANHOLE, MANHOLE STEPS, AND MANHOLE FRAME AND COVER
24" DIAMETER OPENING (ABOVE)
SECTIONAL PLAN THRU BASE

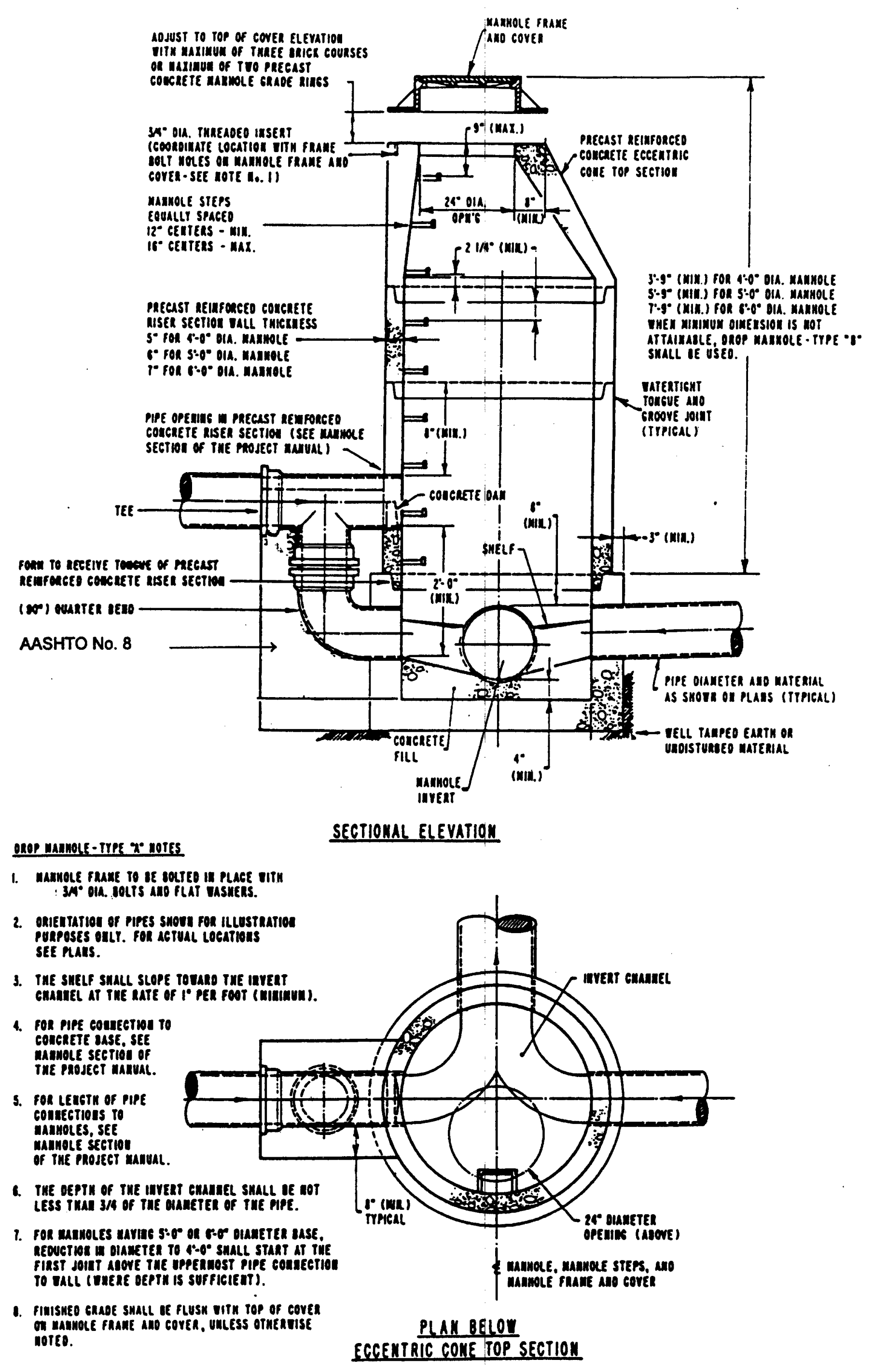
NOTE:

1. 6' DIAMETER MANHOLE TO BE USED WHEN FILL DEPTH IS GREATER THAN 12.5 FEET.

Manhole General Notes
1. Bolt manhole frame in place with four ¾" dia. bolts and flat washers
2. Slope the shelf toward the invert channel at the rate of 1" per foot minimum.
3. Depth of invert channel shall be not less than ¾ of the diameter of the pipe.
4. Finished grade shall be flush with top of cover unless otherwise noted.
5. All manhole joints sealed with preformed plastic sealing compound (Ram-Nek).
6. Precast reinforced concrete manhole to conform to ASTM C-478, cast-in-place gasket to meet ASTM C-923.
7. Plug lifting holes with rubber plug and nonshrink grout for water tight seal.
8. Minimum of 6" of First Class Bedding material under manhole base section.

C / UT-2 STANDARD MANHOLE - 4' & 6' DIAMETER

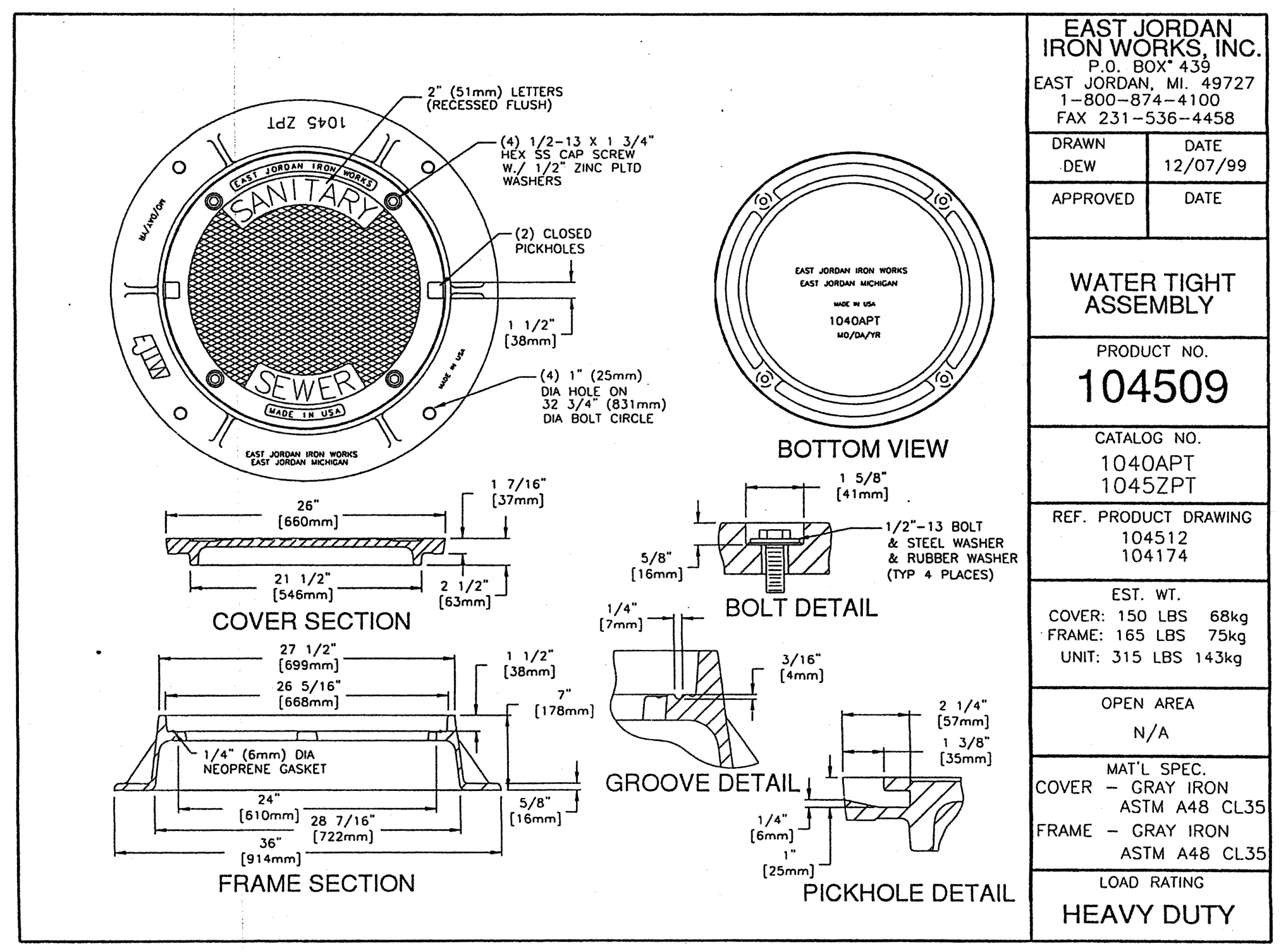
NOT TO SCALE


ADJUST TO TOP OF COVER ELEVATION WITH MAXIMUM OF THREE BRICK COURSES OR MAXIMUM OF TWO PRECAST CONCRETE MANHOLE GRADE RINGS
MANHOLE FRAME AND COVER
3/4" DIA. THREADED INSERT (COORDINATE LOCATION WITH FRAME BOLT HOLES ON MANHOLE FRAME AND COVER-SEE NOTE No. 1)
9" (MAX.)
PRECAST REINFORCED CONCRETE ECCENTRIC CONE TOP SECTION
MANHOLE STEPS EQUALLY SPACED 12" CENTERS - MIN. 16" CENTERS - MAX.
24" DIA. OPN'G
8" (MIN)
2 1/4" (MIN.)
3'-9" (MIN.) FOR 4'-0" DIA. MANHOLE
5'-9" (MIN.) FOR 5'-0" DIA. MANHOLE
7'-9" (MIN.) FOR 6'-0" DIA. MANHOLE
WHEN MINIMUM DIMENSION IS NOT ATTAINABLE, DROP MANHOLE-TYPE "B" SHALL BE USED.
PRECAST REINFORCED CONCRETE RISER SECTION WALL THICKNESS
5" FOR 4'-0" DIA. MANHOLE
6" FOR 5'-0" DIA. MANHOLE
7" FOR 6'-0" DIA. MANHOLE
WATERTIGHT TONGUE AND GROOVE JOINT (TYPICAL)
PIPE OPENING IN PRECAST REINFORCED CONCRETE RISER SECTION (SEE MANHOLE SECTION OF THE PROJECT MANUAL)
8" (MIN.)
TEE
CONCRETE DAM
8" (MIN.)
SHELF
3" (MIN.)
FORM TO RECEIVE TONGUE OF PRECAST REINFORCED CONCRETE RISER SECTION
2'-0" (MIN.)
(90°) QUARTER BEND
AASHTO No. 8
PIPE DIAMETER AND MATERIAL AS SHOWN ON PLANS (TYPICAL)
WELL TAMPED EARTH OR UNDISTURBED MATERIAL
CONCRETE FILL
4" (MIN.)
MANHOLE INVERT
SECTIONAL ELEVATION
INVERT CHANNEL
8" (MIN.) TYPICAL
24" DIAMETER OPENING (ABOVE)
MANHOLE, MANHOLE STEPS, AND MANHOLE FRAME AND COVER
PLAN BELOW ECCENTRIC CONE TOP SECTION

DROP MANHOLE-TYPE "A" NOTES
1. MANHOLE FRAME TO BE BOLTED IN PLACE WITH 3/4" DIA. BOLTS AND FLAT WASHERS.
2. ORIENTATION OF PIPES SHOWN FOR ILLUSTRATION PURPOSES ONLY. FOR ACTUAL LOCATIONS SEE PLANS.
3. THE SHELF SHALL SLOPE TOWARD THE INVERT CHANNEL AT THE RATE OF 1" PER FOOT (MINIMUM).
4. FOR PIPE CONNECTION TO CONCRETE BASE, SEE MANHOLE SECTION OF THE PROJECT MANUAL.
5. FOR LENGTH OF PIPE CONNECTIONS TO MANHOLES, SEE MANHOLE SECTION OF THE PROJECT MANUAL.
6. THE DEPTH OF THE INVERT CHANNEL SHALL BE NOT LESS THAN 3/4 OF THE DIAMETER OF THE PIPE.
7. FOR MANHOLES HAVING 5'-0" OR 6'-0" DIAMETER BASE, REDUCTION IN DIAMETER TO 4'-0" SHALL START AT THE FIRST JOINT ABOVE THE UPPERMOST PIPE CONNECTION TO WALL (WHERE DEPTH IS SUFFICIENT).
8. FINISHED GRADE SHALL BE FLUSH WITH TOP OF COVER ON MANHOLE FRAME AND COVER, UNLESS OTHERWISE NOTED.

L / UT-2 DROP MANHOLE DETAIL - TYPE "A"

NOT TO SCALE


1045 ZPT
2" (51mm) LETTERS (RECESSED FLUSH)
(4) 1/2-13 X 1 3/4" HEX SS CAP SCREW W./ 1/2" ZINC PLTD WASHERS
EAST JORDAN IRON WORKS
SANITARY
SEWER
MADE IN USA
(2) CLOSED PICKHOLES
1 1/2" [38mm]
(4) 1" (25mm) DIA HOLE ON 32 3/4" (831mm) DIA BOLT CIRCLE
EAST JORDAN IRON WORKS
EAST JORDAN MICHIGAN
MADE IN USA
1040APT
MO/DA/YR
BOTTOM VIEW
26" [660mm]
1 7/16" [37mm]
21 1/2" [546mm]
2 1/2" [63mm]
COVER SECTION
1 5/8" [41mm]
5/8" [16mm]
1/2"-13 BOLT & STEEL WASHER & RUBBER WASHER (TYP 4 PLACES)
BOLT DETAIL
27 1/2" [699mm]
26 5/16" [668mm]
1 1/2" [38mm]
7" [178mm]
1/4" (6mm) DIA NEOPRENE GASKET
24" [610mm]
28 7/16" [722mm]
36" [914mm]
5/8" [16mm]
FRAME SECTION
1/4" [7mm]
3/16" [4mm]
GROOVE DETAIL
2 1/4" [57mm]
1 3/8" [35mm]
1/4" [6mm]
1" [25mm]
PICKHOLE DETAIL
EAST JORDAN IRON WORKS, INC.
P.O. BOX 439
EAST JORDAN, MI. 49727
1-800-874-4100
FAX 231-536-4458
DRAWN DEW
DATE 12/07/99
APPROVED
DATE
WATER TIGHT ASSEMBLY
PRODUCT NO. 104509
CATALOG NO. 1040APT 1045ZPT
REF. PRODUCT DRAWING 104512 104174
EST. WT. COVER: 150 LBS 68kg FRAME: 165 LBS 75kg UNIT: 315 LBS 143kg
OPEN AREA N/A
MAT'L SPEC COVER – GRAY IRON ASTM A48 CL35 FRAME – GRAY IRON ASTM A48 CL35
LOAD RATING HEAVY DUTY

F / UT-2 WATER TIGHT MANHOLE FRAME AND COVER

NOT TO SCALE

Sheet Number:
20 of 40
Project Number:
15–100–34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

UTILITY DETAILS

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: AS NOTED

Seal:
G. MITCHELL KING
ENGINEER
No. PE36683-E
1/17/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
UT–2

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PRELIMINARY / FINAL

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

ARCONA NEIGHBORHOOD 8.3

Post Construction Storm Water BMP Operation & Maintenance Procedures

Inspections detailed below shall employ a qualified or registered professional to conduct the inspections and prepare reports. The entity conducting the inspection shall be required to submit a report to the Municipality annually. Reports shall be submitted by February 1 for inspections completed the previous year. The report shall document the condition of the facilities and recommend needed repairs. Recommended repairs and other corrective actions shall be implemented by the Arcona Neighborhood 8 Association, Inc. within thirty days of the report date.

Detention Basin 8.1 & Infiltration Basin 8.3

The general objective of maintenance is to prevent clogging of the outlets and to prevent the growth of weeds and trees. The basin berm and side should be maintained as upland meadow turf grass. The grass should be mowed regularly to maintain a grass height of 6–8 inches. Any seedlings or plantings should be removed from the basin. Root voids and burrows should be filled with soil similar to the surrounding materials. Plug the burrows with stone or concrete just below the surface. If plugging burrows does not discourage the animal population, take further measures to remove the animal population

Sediment tends to accumulate over time. The collected sediment in the bottom of the basin must be removed every five to ten years. Clean accumulated silt, sand, mud and debris. Remove from the site and dispose of in an appropriate approved facility. Seed and mulch the disturbed areas immediately.

The detention basin should be inspected quarterly and after every major storm. Inspections, operation, maintenance, and repairs to the basins are the responsibility of the Arcona Neighborhood 8 Association, Inc.

Constructed Wetlands

See Sheet SM–4 & SM–5.

Grass Swales

Grass swales shall be maintained with turf grass. The swales should be mowed regularly to maintain a grass height of 3 to 5 inches. Debris should be removed from the swales. If erosion occurs uphill of the swales, any sediment deposited in the swales should be removed. The eroded areas should be repaired and stabilized with seed and mulch. Apply seed & mulch to disturbed areas of the swales after sediment is removed. Grass swales shall be maintained by the Arcona Neighborhood 8 Association, Inc.

Rip Rap Pads

The outlet structures should be inspected quarterly and after each major storm. If the soil has eroded around or below the rip rap pad, the area should be repaired with top soil, seed and mulch.

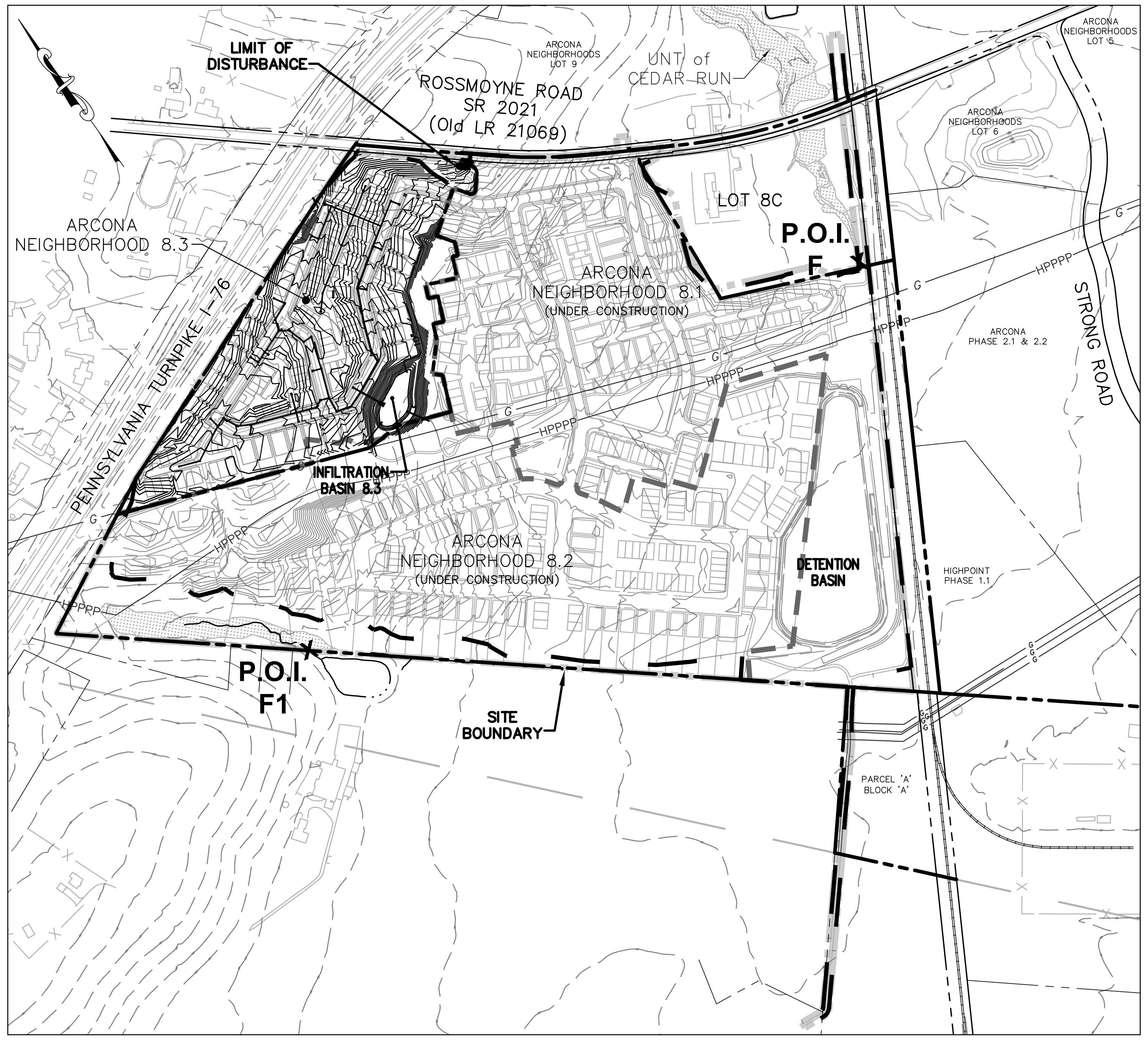
GEOLOGIC EVALUATION:

by ARM Group, Inc.

SUMMARY

- According to the Pennsylvania Department of Conservation and Natural Resources online Geologic Data Exploration application (PaGEODE), the site in underlain by the Epler Formation, Hamburg sequence rocks, Hershey Formation and the Myerstown Formation. The Epler Formation consists of a very crystalline, medium–gray limestone interbedded with gray dolomite that is moderately weathered to a shallow depth. The Hamburg sequence rocks are transported rocks of the Hamburg overthrust; gray, greenish–gray and maroon shale, which are silty and siliceous in many areas; dark gray impure sandstone; medium to light–gray finely crystalline limestone and shaly limestone. The Hershey Formation consists of dark–gray to black, argillaceous limestone. The characterization of the Myerstown Formation is medium to dark–gray, medium–crystalline limestone with dark gray to black carbonaceous limestone at the base.
- Review of the Sinkholes and Karst–Related Features of Cumberland County, Pennsylvania, (W.E. Kochanov, 1989), there are multiple closed depressions mapped within common geologic formations within 2,000 feet of the site, but no sinkholes are mapped within the site boundary.
- The site reconnaissance and infiltration testing performed by ARM Group, Inc. personnel revealed no closed depressions, topographic lineaments or fracture traces, caverns, intermittent lakes, ephemeral streams, or other carbonate geology hazards.

- See sheet SM–6 for full ARM Group, Inc. recommendations regarding construction.



PLAN: 1" = 300'

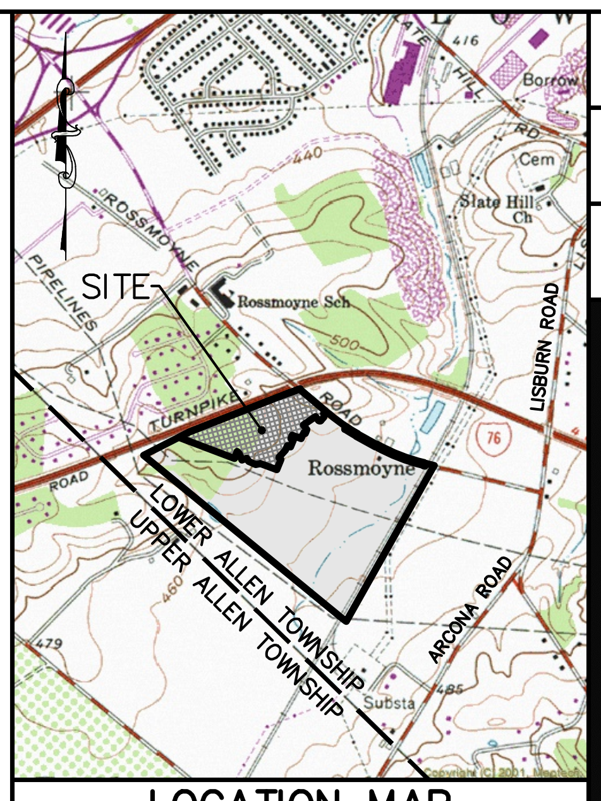
This site is located on UNT to Cedar Run. Cedar Run is classified as Cold Water Fisheries (CWF).

Previous LOD = 153.84 Ac.
Additional LOD = 0.62 Ac.
Total LOD = 154.46 Ac.

Site Area = 172.58 Ac.

PLAN INDEX

NO.	SEC.	TITLE
21	SM–1	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN – COVER
22	SM–2	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
23	SM–3	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
24	SM–4	POST CONSTRUCTION STORMWATER MANAGEMENT BASIN DETAILS
25	SM–5	POST CONSTRUCTION STORMWATER MANAGEMENT BASIN DETAILS
26	SM–6	POST CONSTRUCTION STORMWATER MANAGEMENT NOTES



LOCATION MAP
SCALE: 1" = 2000'

Sheet Number:
21 of 40

Project Number:
15–100–34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3
Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN – COVER

Project Manager: DAVID B. KEGERIZE PE
Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS
Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS
Scale: 1"=300'
0 150 300 600 900

Seal: G. MITCHELL KING, ENGINEER, No. PE36683-E, 1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
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10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
SM–1

1/21/2025 12:52 PM L:\15–100–34\SHEETS\PRELIMINARY\21 SM–01.DWG

EQUITABLE OWNER / DEVELOPER (ARCONA NEIGHBORHOOD 8.3):

Charter Homes Development Company
322 North Arch Street
Lancaster, PA 17603

OWNER / DEVELOPER (ARCONA NEIGHBORHOOD 8.2):

Charter Homes at Arcona Inc.
322 North Arch Street
Lancaster, PA 17603

SOURCE OF TITLE:

Tax Map 13–10–0256–032
Inst. No.: 202301420

OWNER (ARCONA NEIGHBORHOOD 8, LOT 8A)

Ruth D. Lesher
1340 Rossmoyne Road
Mechanicsburg, PA 17055

SOURCE OF TITLE:

Tax Map 13–10–0256–226
Inst. No.: 201729508 (1/2 interest)

OWNER (ARCONA NEIGHBORHOOD 8, LOT 8A)

Strong & Detweiler Partnership
1340 Rossmoyne Road
Mechanicsburg, PA 17055

SOURCE OF TITLE:

Tax Map 13–10–0256–226
Deed Book: 274, Page 1884 (1/2 interest)

SITE ACREAGE:

ARCONA NEIGHBORHOOD 8.3 – GROSS AREA – 13.61 Ac.

ZONING:

R–2 Single–Family Residential
District (TND Overlay)

PROPOSED USE:

41 Single–Family Lots
52 Single–Family Attached Units
93 Total Units

PROPOSED WATER SERVICE:

PUBLIC

PROPOSED SEWER SERVICE:

PUBLIC

NOTES:

1. LEGEND IS LOCATED ON SM–2.

Soils Limitations & Resolutions

Symbol	Name	Slope	Limitations	Resolution
BdC	Bedington shaly silt loam	8-15%	Dusty	Water dry disturbed areas
			Unstable excavation walls	Slope excavation walls or mechanically support
			Piping	Clay liner, water-tight pipe joints
DuA	Duffield silt loam	0-3%	High clay content	Minimize construction in this soil
				Water dry disturbed areas
			Dusty	Slope excavation wall or mechanically support
			Unstable excavation walls	
			Piping	Clay liner, water-tight pipe joints
DuB	Duffield silt loam	3-8%	High clay content	Minimize construction in this soil
				Water dry disturbed areas
			Dusty	Slope excavation wall or mechanically support
			Unstable excavation walls	
			Piping	Clay liner, water-tight pipe joints
EdB	Edom silty clay loam	3-8%	High clay content	Minimize construction in this soil
				Water dry disturbed areas
			Dusty	Slope excavation walls or mechanically support
			Unstable excavation walls	
			Piping	Clay liner, water-tight pipe joints
Pe	Penlaw silt loam	-	Depth to saturated zone	Minimize cut
			Dusty	
			Piping	Water dry disturbed areas
				Clay liner, water-tight pipe joints

NPDES NARRATIVE

Charter Homes and Neighborhoods, Inc. proposes to develop 41 detached single–family lots and 52 attached single–family units in Arcona Neighborhood 8.3. Neighborhood 8 is located on a 74.24 acre tract of land. The Arcona Neighborhood 8.3 property is located on the south side of Rossmoyne Road along the south side of the Pennsylvania Turnpike. The development will be served by public sewer and water. The land is currently farmed.

Arcona Neighborhood 8.3 is a part of the master plan for a traditional neighborhood development (TND) of the Arcona Site. Storm water management for the Arcona Neighborhood 8.3 development will be provided by a regional detention basin which will collect runoff.

ESTIMATED SCHEDULE FOR PROJECT

Work Schedule:

- Start of Site Work: September 2024.
- Site Work Complete: March 2025.
- Home Construction: Q4 2024 – Q4 2026.

RECYCLING AND DISPOSAL OF BUILDING MATERIALS AND WASTES

The operator shall remove from the site, recycle, or dispose of all building materials and wastes in accordance with the department's solid waste management regulations at 25 pa. Code 260.1 et seq., 271.1 et seq., and 287.1 et seq. The contractor shall not illegally bury, dump, or discharge any building material or wastes at the site

DESIGN CONSIDERATIONS

The time and extent of earth disturbance will be limited.

- The development of the project will be phased to limit the amount of earth disturbance in any one phase.
- Earth disturbance, topsoil stripping and compaction will be limited on portions of the site. These areas will be marked with orange construction fence as a visible reminder of the areas to be preserved.

The Arcona Neighborhood 8.3 plan protects existing drainage features and vegetation.

- The existing drainageway/wetlands that run through Neighborhood 8 will be fenced to prevent disturbance.

The plans minimize soil compaction by:

- Leaving steep slopes undisturbed.

The plans minimize generation of increased stormwater runoff by:

- Use streets with the minimum width permitted by Lower Allen Township.

THERMAL IMPACTS

A portion of the Arcona Neighborhood 8.3 will drain into the regional detention basin via a stormwater management conveyance system. The basin will contain the warmer first flush runoff from the site. The warmer first flush will either be evaporated or transpirated through the constructed wetlands in the bottom of the basin. The subsequent, cooler runoff will be filtered and cooled by the 50–foot wooded/vegetated buffer along UNT of Cedar Run before it reaches the surface waters.

PCSM BMPs

The following PCSM BMPs will maintain water flow rate, volume and water quality for Arcona Neighborhood 8.1, 8.2, & 8.3:

- Rate and Volume Control in Basin 1, constructed as a part of Arcona Neighborhood 8.1. The basin will have a constructed wetlands in the bottom, which will improve water quality as well as provide volume control.
- Rate and Volume Control in Infiltration Basin 8.3 within Arcona Neighborhood 8.3 site.

PCSM NOTES

1. No person shall modify, remove, fill, landscape, or alter any stormwater management BMPs, facilities, areas, structures, or easements that were installed/approved as a requirement of the Lower Allen Township Stormwater Management Ordinance without the written approval of the municipality.
2. Stormwater management site plans approved by the municipality shall be onsite throughout the duration of the regulated activity,
3. The maintenance of all off–street storm water conveyance and management facilities shall be the responsibility of the Neighborhood Association. Maintenance shall include, but not be limited to normal maintenance as well as repair of structural damage or deterioration of any kind, including that caused by sinkholes, erosions or other events.
4. A qualified registered professional shall be engaged by the Neighborhood Association to inspect stormwater management facilities according to the frequency specified in the Operations & Maintenance Agreement and provide inspection reports to the Township.
5. The officials of Lower Allen Township shall have the right, but not the duty of access at any time to inspect and maintain the facilities at the property owner's expense, if the owner should fail to properly maintain the facilities.
6. All drainage structures (including inlets, storm manholes, endwalls, etc.) proposed for dedication or located within a street section shall be capable of handling an HS–25 loading. All storm sewer pipes, culverts, manholes, inlets, endwalls, and end sections shall be constructed in accordance with the specifications set forth in the Pennsylvania department of Transportation (PENNDOT) Publication 408, as amended, and shall conform to the requirements of the PENNDOT, Bureau of Design, Standards for Roadway Construction (RC), Publication No. 72.
7. All storm water piping must have watertight joints. All connections between piping and inlets, manholes, headwalls and endwalls must be watertight.
8. If any carbonate geology features, including but not limited to, sinkholes, closed depressions and/or bedrock pinnacles are encountered during construction activities, a Pennsylvania licensed Professional Geologist and/or geotechnical engineer as well as the Township must be notified.
9. A licensed professional engineer shall be present at the following critical stages of construction on this site:
   * Inspect the site in conjunction with the Cumberland County Conservation District (CCCD) prior to conversion of Sediment Basin 1 into the permanent detention basin.
   * Inspect the permanent detention basin for stability, size, grade and proper outlet structure after conversion is completed.
   * Addition of planting soils & vegetation in Infiltration Basin 8.3.

9. The applicant shall be responsible for providing as–built plans of all stormwater management BMPs included in the approved stormwater management site plan. The as–built plans and an explanation of any discrepancies with the construction plans shall be submitted to the municipality. The as–built submission shall include a certification of completion signed by a qualified professional verifying that all permanent stormwater management BMPs have been constructed according to the approved plans and specifications. The latitude and longitude coordinates for all permanent stormwater management BMPs must also be submitted, at the central location of the BMPs. If any licensed qualified professionals contributed to the construction plans, then a licensed qualified professional must sign the completion certificate.After receipt of the completion certification by the municipality, the municipality may conduct a final inspection.

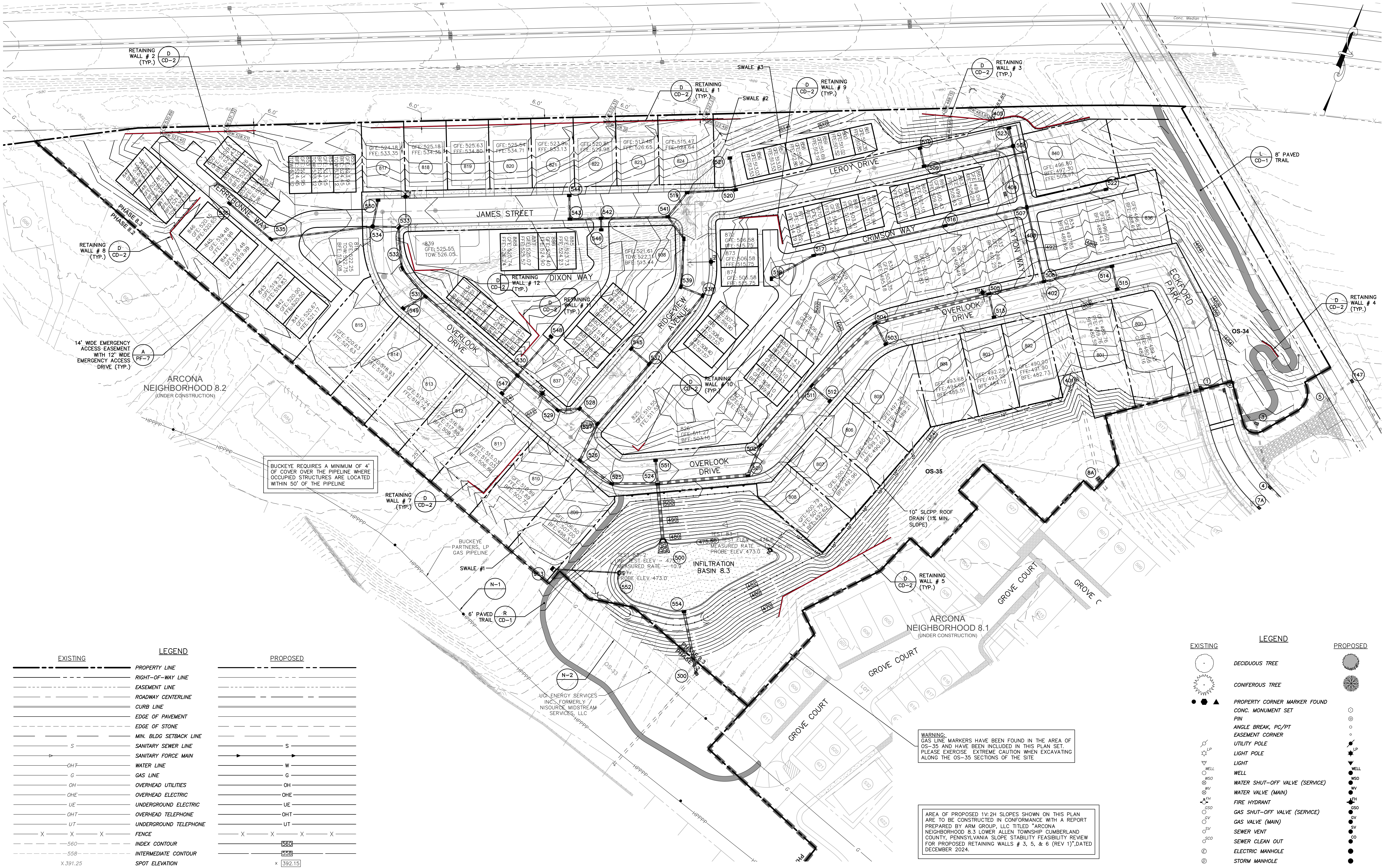
10. A Notice of Termination (NOT) will be required to be submitted following approval of the final as–built plans. Prior to accepting the NOT, the Department and/or Conservation District staff will perform a final inspection to ensure site stabilization and verify adequate installation and function of the stormwater BMPs.

11. Sediment cleaned from detention basins and other stormwater BMPs shall be disposed of in approved off–site disposal areas or may be spread in on–site upland meadow areas and stabilized immediately with seed and mulch.

12. All manhole frames and covers are required to meet PennDOT standards.

13. Runoff from all buildings must be directed towards the street (alley) and away from adjacent buildings and properties.

PRELIMINARY / FINAL



ARCONA NEIGHBORHOOD 8.2
(UNDER CONSTRUCTION)
ARCONA NEIGHBORHOOD 8.1
(UNDER CONSTRUCTION)
PHASE 8.3
PHASE 8.2
JAMES STREET
LEROY DRIVE
CRIMSON WAY
DIXON WAY
LAYTON WAY
OVERLOOK DRIVE
RIDGEVIEW AVENUE
TERREBONNE WAY
ECKFORD PARK
GROVE COURT
INFILTRATION BASIN 8.3
OS-33
OS-34
OS-35
SWALE #1
SWALE #2
SWALE #3
RETAINING WALL # 1 (TYP.)
RETAINING WALL # 2 (TYP.)
RETAINING WALL # 3 (TYP.)
RETAINING WALL # 4 (TYP.)
RETAINING WALL # 5 (TYP.)
RETAINING WALL # 7 (TYP.)
RETAINING WALL # 8 (TYP.)
RETAINING WALL # 9 (TYP.)
RETAINING WALL # 10 (TYP.)
RETAINING WALL # 11 (TYP.)
RETAINING WALL # 12 (TYP.)
14' WIDE EMERGENCY ACCESS EASEMENT WITH 12' WIDE EMERGENCY ACCESS DRIVE (TYP.)
8' PAVED TRAIL
6' PAVED TRAIL
10" SLCPP ROOF DRAIN (1% MIN. SLOPE)
BUCKEYE PARTNERS, LP GAS PIPELINE
UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICES, LLC
Conc. Median

BUCKEYE REQUIRES A MINIMUM OF 4' OF COVER OVER THE PIPELINE WHERE OCCUPIED STRUCTURES ARE LOCATED WITHIN 50' OF THE PIPELINE

WARNING:
GAS LINE MARKERS HAVE BEEN FOUND IN THE AREA OF OS-35 AND HAVE BEEN INCLUDED IN THIS PLAN SET. PLEASE EXERCISE EXTREME CAUTION WHEN EXCAVATING ALONG THE OS-35 SECTIONS OF THE SITE

AREA OF PROPOSED 1V:2H SLOPES SHOWN ON THIS PLAN ARE TO BE CONSTRUCTED IN CONFORMANCE WITH A REPORT PREPARED BY ARM GROUP, LLC TITLED "ARCONA NEIGHBORHOOD 8.3 LOWER ALLEN TOWNSHIP CUMBERLAND COUNTY, PENNSYLVANIA SLOPE STABILITY FEASIBILITY REVIEW FOR PROPOSED RETAINING WALLS # 3, 5, & 6 (REV 1)",DATED DECEMBER 2024.

LEGEND

EXISTING	LEGEND	PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY LINE	
	EASEMENT LINE	
	ROADWAY CENTERLINE	
	CURB LINE	
	EDGE OF PAVEMENT	
	EDGE OF STONE	
	MIN. BLDG SETBACK LINE	
S	SANITARY SEWER LINE	S
▷	SANITARY FORCE MAIN	▶
OHT	WATER LINE	W
G	GAS LINE	G
OH	OVERHEAD UTILITIES	OH
OHE	OVERHEAD ELECTRIC	OHE
UE	UNDERGROUND ELECTRIC	UE
OHT	OVERHEAD TELEPHONE	OHT
UT	UNDERGROUND TELEPHONE	UT
X X X	FENCE	X X X X
560	INDEX CONTOUR	560
558	INTERMEDIATE CONTOUR	558
X 391.25	SPOT ELEVATION	× 392.15
	STORM INLET & PIPING	
	GUIDE RAIL	
	TREELINE	
	RAILROAD	
	EDGE OF WATER (STREAM)	
	SOILS LINE	
	ZONING LINE	
	MUNICIPALITY LINE	
△	SOIL TEST	

LEGEND

EXISTING	LEGEND	PROPOSED
	DECIDUOUS TREE	
	CONIFEROUS TREE	
● ⬢ ▲	PROPERTY CORNER MARKER FOUND	
	CONC. MONUMENT SET	⬡
	PIN	◎
	ANGLE BREAK, PC/PT	○
	EASEMENT CORNER	○
	UTILITY POLE	
LP	LIGHT POLE	LP
	LIGHT	
WELL	WELL	WELL
WSO	WATER SHUT-OFF VALVE (SERVICE)	WSO
WV	WATER VALVE (MAIN)	WV
FH	FIRE HYDRANT	FH
GSO	GAS SHUT-OFF VALVE (SERVICE)	GSO
GV	GAS VALVE (MAIN)	GV
SV	SEWER VENT	SV
SCO	SEWER CLEAN OUT	CO
Ⓔ	ELECTRIC MANHOLE	●
Ⓓ	STORM MANHOLE	●
Ⓢ	SANITARY MANHOLE	●
Ⓣ	TELEPHONE MANHOLE	●
	SIGN	
MB	MAIL BOX	
▲	DEEP PROBE	
○	PERCOLATION TEST HOLE	
B-4 B-5	WETLANDS	

Sheet Number:
22 of 40

Project Number:
15-100-34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Project Manager: DAVID B. KEGERIZE PE
Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS
Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS
Scale: 1"=50'
0 25 50 100 150

Seal:
G. MITCHELL KING
ENGINEER
No. PE36683-E
1/7/25

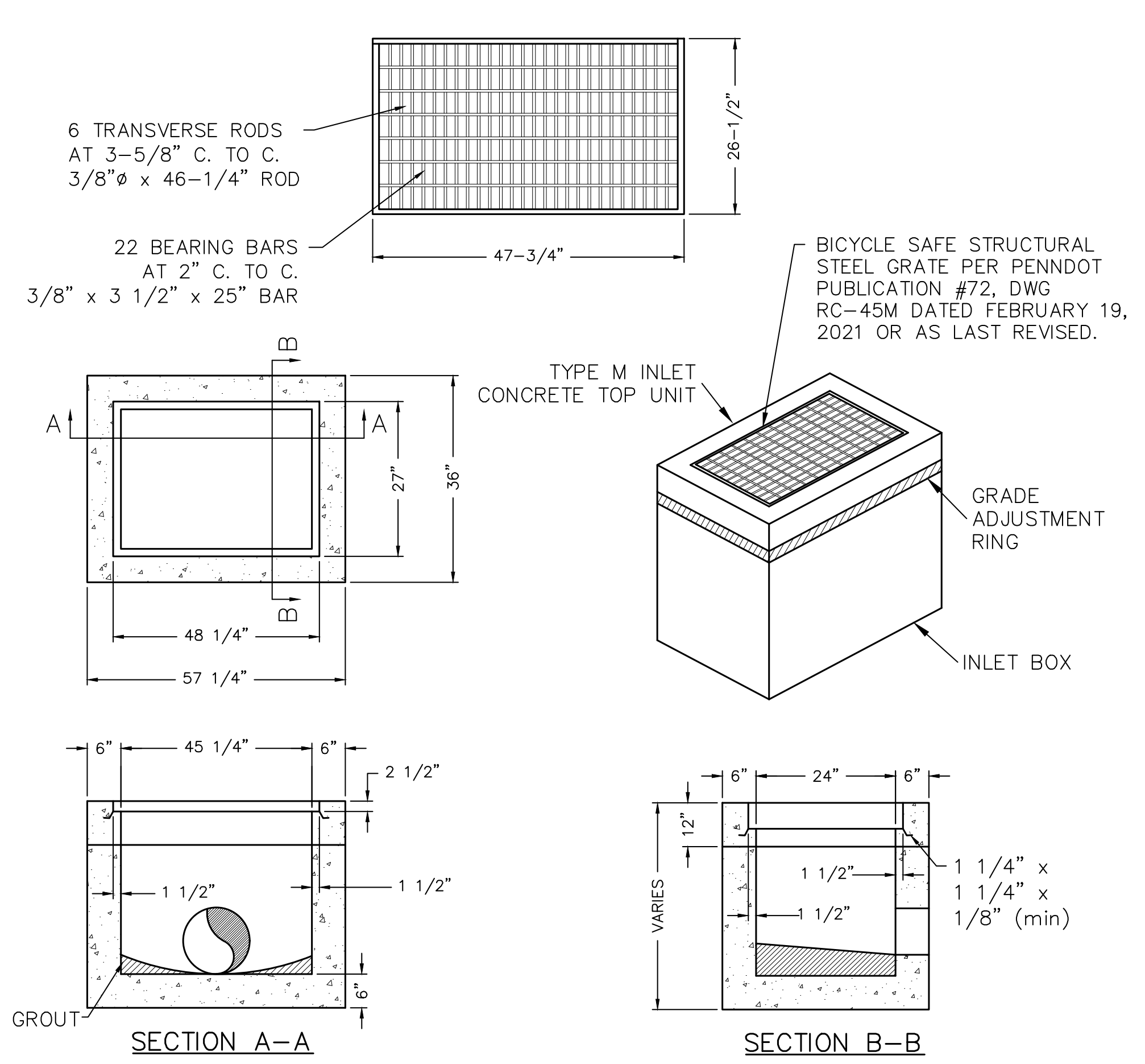
TOWNE SQUARE
ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
SM-2

3/7/2025 4:05 PM L:\15-100-34\SHEETS\PRELIMINARY\22 SM-02.DWG

PRELIMINARY / FINAL

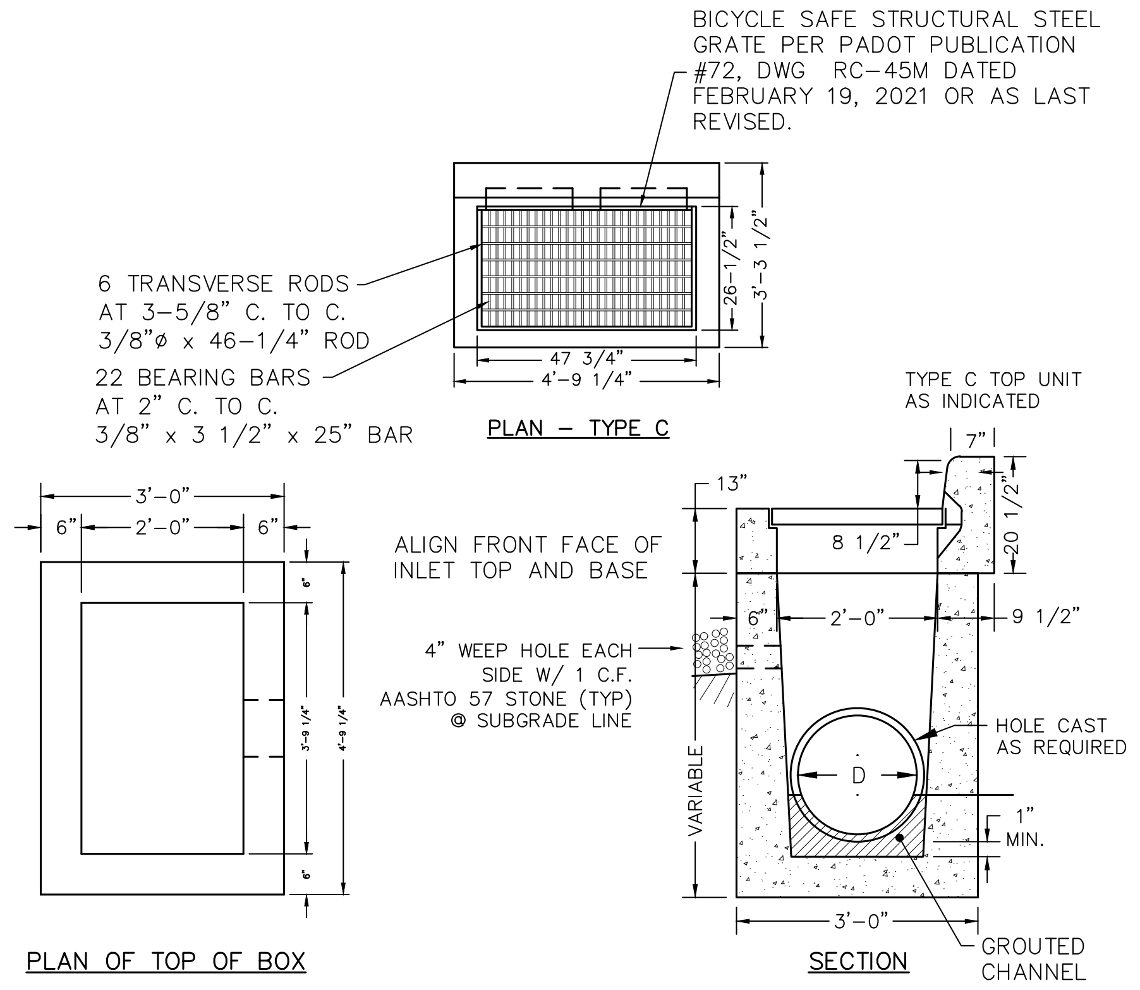

6 TRANSVERSE RODS AT 3–5/8" C. TO C. 3/8"ø x 46–1/4" ROD
22 BEARING BARS AT 2" C. TO C. 3/8" x 3 1/2" x 25" BAR
47–3/4"
26–1/2"
BICYCLE SAFE STRUCTURAL STEEL GRATE PER PENNDOT PUBLICATION #72, DWG RC–45M DATED FEBRUARY 19, 2021 OR AS LAST REVISED.
TYPE M INLET CONCRETE TOP UNIT
GRADE ADJUSTMENT RING
INLET BOX
48 1/4"
57 1/4"
27"
36"
A
B
6"
45 1/4"
2 1/2"
1 1/2"
24"
12"
VARIES
1 1/4" x 1 1/4" x 1/8" (min)
GROUT
SECTION A–A
SECTION B–B

NOTES:

1. CERTIFY THAT STRUCTURAL STEEL BICYCLE SAFE GRATE MEETS OR EXCEEDS HS–25 LOADING REQUIREMENTS.
2. MINIMUM COVER OF 12" FROM SUBGRADE TO CROWN OF PIPE.
3. INLETS, PRECAST OR POURED IN PLACE, SHALL USE 4000 PSI COMPRESSIVE STRENGTH CONCRETE.
4. POURED IN PLACE CONCRETE INLET BASE SECTION SHALL BE SEPARATE FROM POUR FROM HOOD SECTION INLET POUR.
5. STEPS ARE REQUIRED IN ALL INLETS GREATER THAN 5' DEEP.

A SM–3 2'x4' TYPE M INLET WITH BICYCLE SAFE GRATE

NOT TO SCALE


BICYCLE SAFE STRUCTURAL STEEL GRATE PER PADOT PUBLICATION #72, DWG RC–45M DATED FEBRUARY 19, 2021 OR AS LAST REVISED.
6 TRANSVERSE RODS AT 3–5/8" C. TO C. 3/8"ø x 46–1/4" ROD
22 BEARING BARS AT 2" C. TO C. 3/8" x 3 1/2" x 25" BAR
47 3/4"
4'–9 1/4"
PLAN – TYPE C
TYPE C TOP UNIT AS INDICATED
ALIGN FRONT FACE OF INLET TOP AND BASE
3'–0"
2'–0"
6"
13"
8 1/2"
9 1/2"
4" WEEP HOLE EACH SIDE W/ 1 C.F. AASHTO 57 STONE (TYP) @ SUBGRADE LINE
HOLE CAST AS REQUIRED
D
1" MIN.
VARIABLE
3'–0"
GROUTED CHANNEL
PLAN OF TOP OF BOX
SECTION

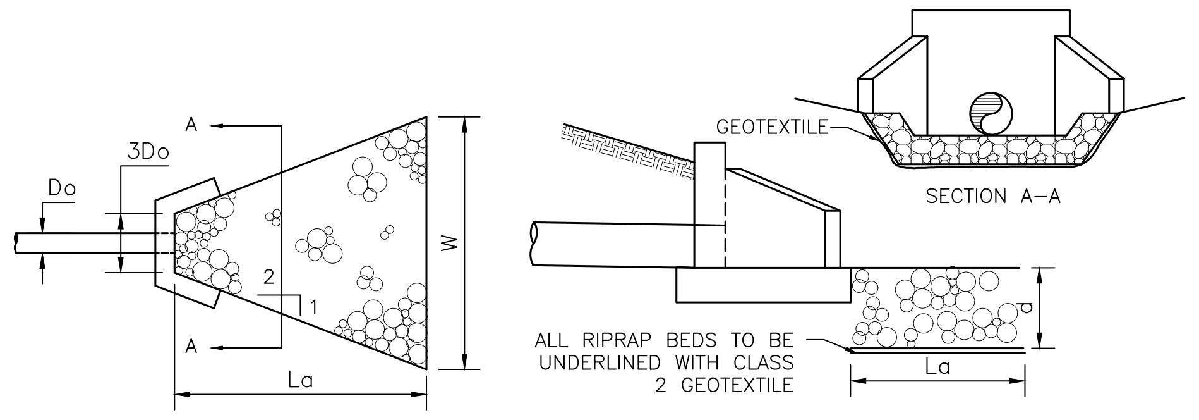
NOTES:

1. PLACE 3/4" PREMOLDED EXPANSION JOINT FILLER MATERIAL AT ABUTTING CURBS.
2. CERTIFY THAT STRUCTURAL STEEL BICYCLE SAFE GRATE MEETS OR EXCEEDS HS–25 LOADING REQUIREMENTS.
3. MINIMUM COVER OF 12" FROM SUBGRADE TO CROWN OF PIPE.
4. INLETS, PRECAST OR POURED IN PLACE, SHALL USE 4000 PSI COMPRESSIVE STRENGTH CONCRETE.
5. POURED IN PLACE CONCRETE INLET BASE SECTION SHALL BE SEPARATE FROM POUR FROM HOOD SECTION INLET POUR.
6. MATERIALS, EQUIPMENT AND METHODS SHALL CONFORM TO LOWER ALLEN TOWNSHIP STREET CONSTRUCTION SPECIFICATIONS AND PENNDOT FORM 408, AS REVISED.
7. MODIFIED TYPE C INLET TOP (15" MINIMUM HEIGHT FOR USE WITH ROLLED CURB.
8. STEPS ARE REQUIRED IN ALL INLETS GREATER THAN 5' DEEP.

B SM–3 TYPE C INLET WITH BICYCLE SAFE GRATE

NOT TO SCALE

STRUCTURE	Do	RIPRAP SIZE	La	W	d
EW-1	24	R-3	12.0'	10.8'	9
EW-3	24	R-3	10.0'	10.0'	9

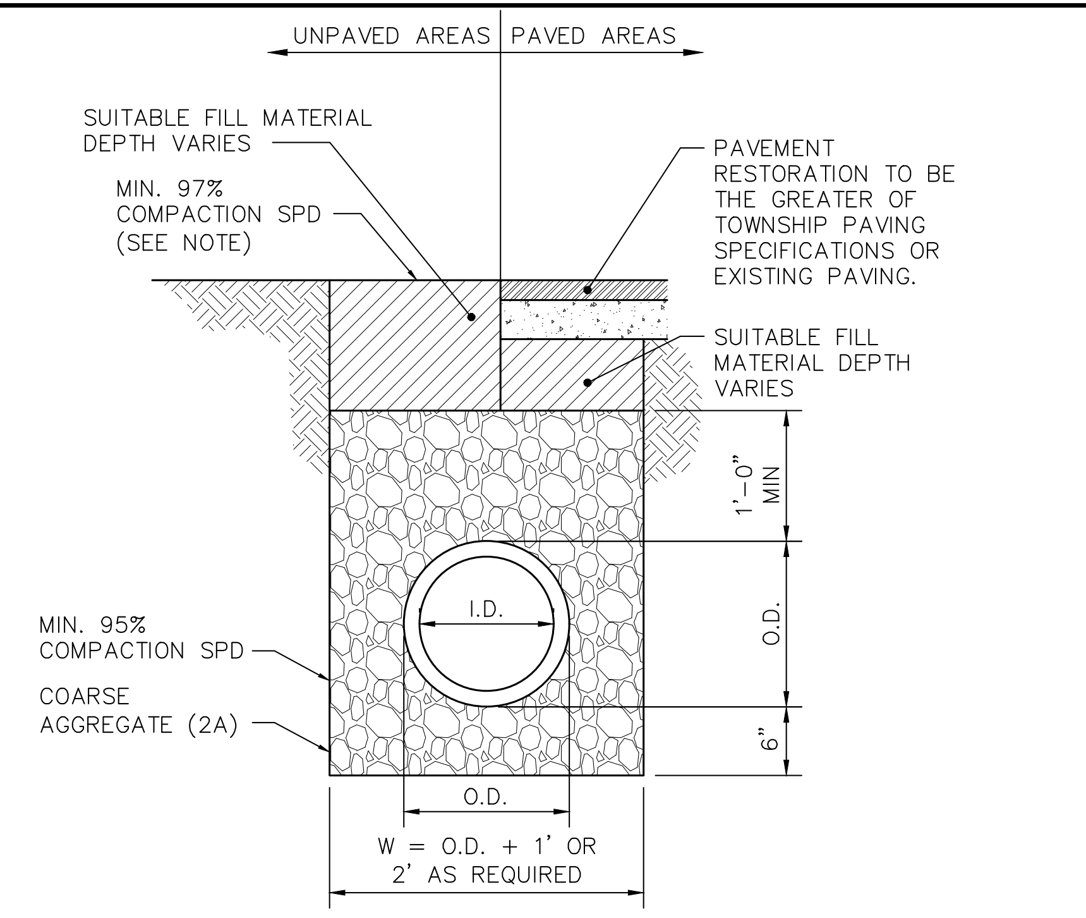

A
3Do
Do
2
1
A
La
W
GEOTEXTILE
SECTION A–A
ALL RIPRAP BEDS TO BE UNDERLINED WITH CLASS 2 GEOTEXTILE
La
d

GRADATION OF RIPRAP				
	MAX.	AVG.	MIN.*	DEPTH
R-3	6"	3"	2"	9"
R-4	12"	6"	3"	18"
R-5	18"	9"	5"	27"
R-6	24"	12"	7"	36"

* PIECES SMALLER THAN THE MIN. SIZE SHALL NOT EXCEED 15% OF THE TONNAGE SHIPPED

M SM–3 RIP-RAP APRON

NOT TO SCALE


UNPAVED AREAS
PAVED AREAS
SUITABLE FILL MATERIAL DEPTH VARIES
MIN. 97% COMPACTION SPD (SEE NOTE)
PAVEMENT RESTORATION TO BE THE GREATER OF TOWNSHIP PAVING SPECIFICATIONS OR EXISTING PAVING.
SUITABLE FILL MATERIAL DEPTH VARIES
1'–0" MIN
I.D.
O.D.
MIN. 95% COMPACTION SPD
COARSE AGGREGATE (2A)
6"
O.D.
W = O.D. + 1' OR 2' AS REQUIRED

NOTES:

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH PADOT PUB. #RC–30M STANDARDS FOR SUBSURFACE DRAINS, PIPE PLACEMENT, EXCAVATION – BEDDING – BACKFILL.
2. PLACE 2A COARSE AGGREGATE MATERIAL, IN LIFTS 4" THICK, ADJACENT TO THE LOWER HAUNCHES TO A HEIGHT OF 12" ABOVE THE TOP OF THE PIPE. COMPACT TO 95% SPD. TEST BACKFILL MATERIAL AND CONTINUE EMBANKMENT IN ACCORDANCE WITH PUB. 408, SECTION 601.
3. COMPACT TOP 3'–0" OF SUBGRADE TO 100% IN ACCORDANCE WITH PUB 408, SECTION 206.3.
4. SUITABLE FILL MATERIAL = MATERIAL CONTAINING NO DEBRIS, ORGANIC MATTER, FROZEN MATERIAL OR LARGE STONES WITH A DIAMETER GREATER THAN ONE–HALF THE THICKNESS OF THE COMPACTED LAYERS BEING PLACED.
5. SPD = STANDARD PROCTOR DENSITY.

D SM–3 STORM SEWER TRENCH DETAIL - PRIVATE STREETS

NOT TO SCALE

DISTIBUTION BOX I-30 - Lots 895 & 896

DESCRIPTION	TO / FROM	ORIFICE SIZE
8" PVC IN	FROM I-9	-
6" PVC OUT	TO BED 896-A	4.7"
4" PVC OUT	TO BED 896-B	3.1"
4" PVC OUT	TO BED 896-C	3.2"
4" PVC OUT	TO BED 895-A	2.4"
4" PVC OUT	TO BED 895-B	3.1"

DISTIBUTION BOX I-31 - Lot 893

DESCRIPTION	TO / FROM	
8" PVC IN	FROM I-6	
4" PVC OUT	TO BED 893-A	
4" PVC OUT	I-33	
4" PVC OUT	TO BED 893-B	
4" PVC OUT	TO BED 893-C	

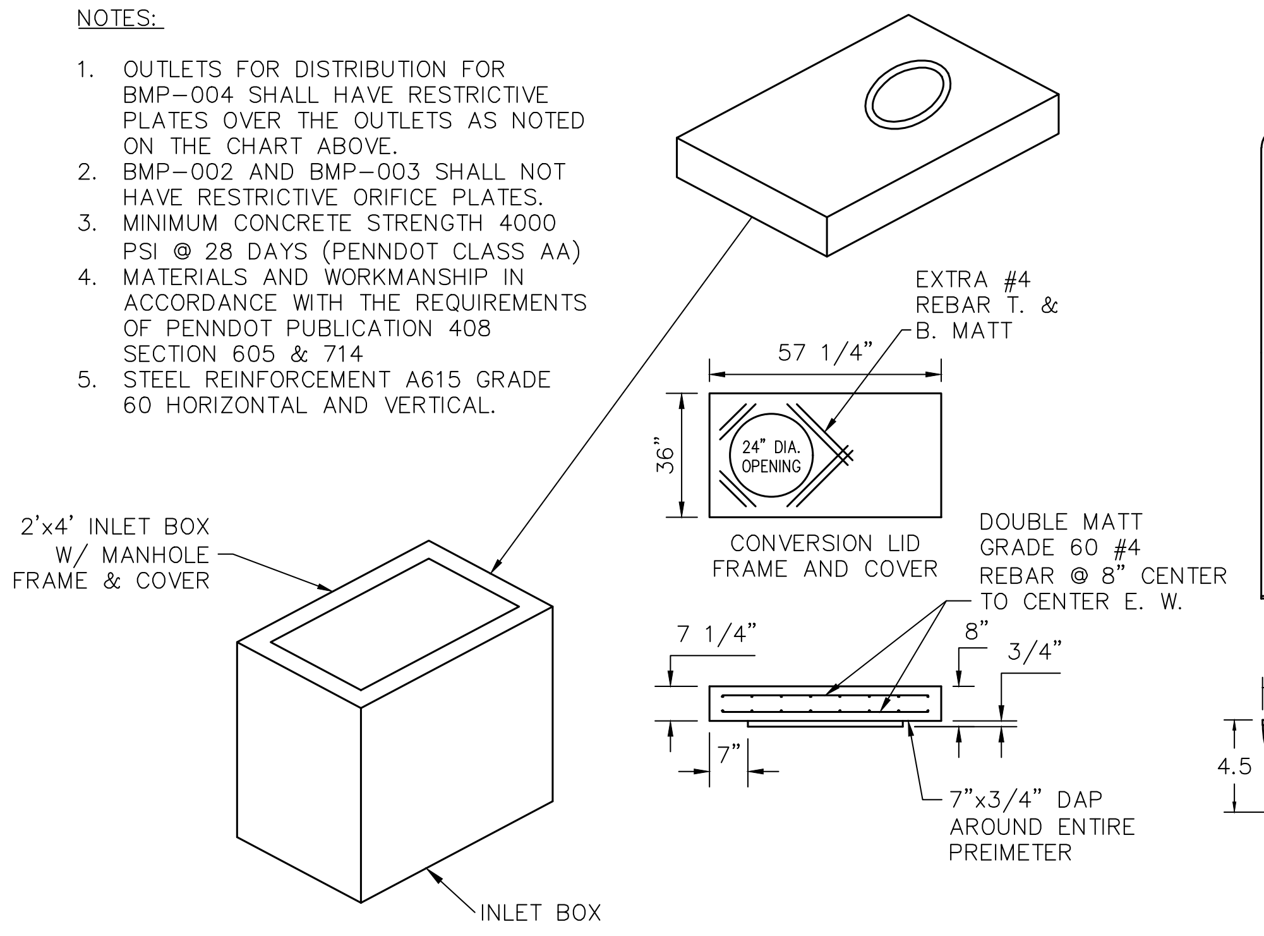
DISTIBUTION BOX I-33 - Lot 894

DESCRIPTION	TO / FROM	
4" PVC IN	FROM I-31	
6" PVC IN	RD-894	
4" PVC OUT	TO BED 894-A	
4" PVC OUT	TO BED 894-B	

DISTIBUTION BOXES		
BOX	TOP ELEV.	INV. ELEV.
I-30	451.75	449.00
I-31	444.00	439.00
I-33	438.50	435.00

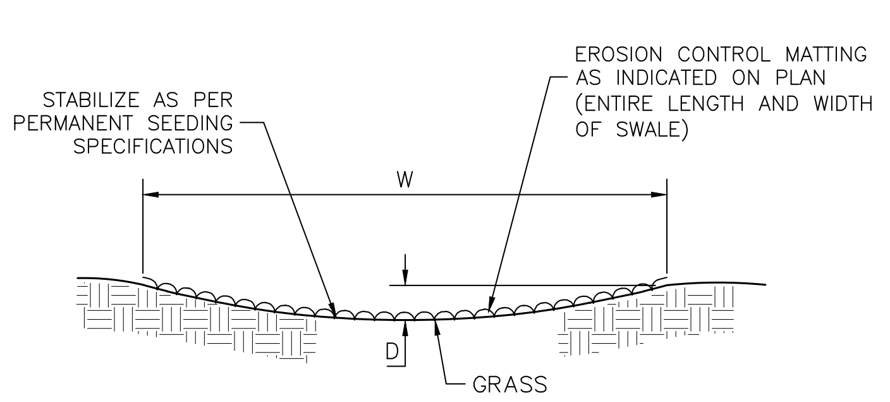
NOTES:

1. OUTLETS FOR DISTRIBUTION FOR BMP–004 SHALL HAVE RESTRICTIVE PLATES OVER THE OUTLETS AS NOTED ON THE CHART ABOVE.
2. BMP–002 AND BMP–003 SHALL NOT HAVE RESTRICTIVE ORIFICE PLATES.
3. MINIMUM CONCRETE STRENGTH 4000 PSI @ 28 DAYS (PENNDOT CLASS AA)
4. MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH THE REQUIREMENTS OF PENNDOT PUBLICATION 408 SECTION 605 & 714
5. STEEL REINFORCEMENT A615 GRADE 60 HORIZONTAL AND VERTICAL.


EXTRA #4 REBAR T. & B. MATT
57 1/4"
36"
24" DIA. OPENING
CONVERSION LID FRAME AND COVER
2'x4' INLET BOX W/ MANHOLE FRAME & COVER
DOUBLE MATT GRADE 60 #4 REBAR @ 8" CENTER TO CENTER E. W.
7 1/4"
8"
3/4"
7"
7"x3/4" DAP AROUND ENTIRE PREIMETER
INLET BOX

G SM–3 ROOF DRAIN OUTLET DISTRIBUTION BOXES

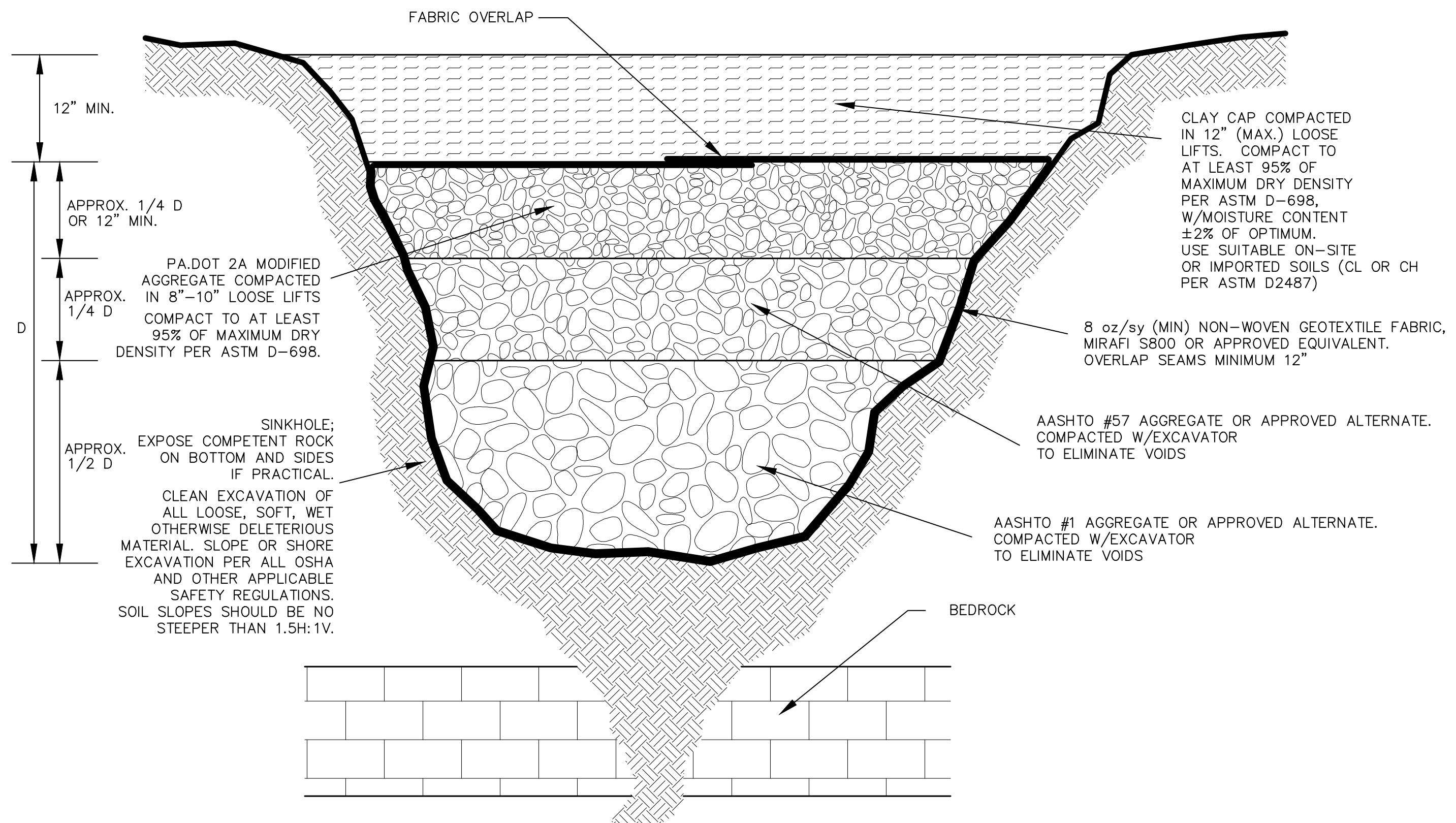
NOT TO SCALE


STABILIZE AS PER PERMANENT SEEDING SPECIFICATIONS
EROSION CONTROL MATTING AS INDICATED ON PLAN (ENTIRE LENGTH AND WIDTH OF SWALE)
W
D
GRASS

SWALE	W	D	MIN. SLOPE	MAX. SLOPE	EROSION CONTROL MATTING	PERMANENT STABILIZATION
1-A	20'	12"	14.3%	14.3%	NAG S150	GRASS
1-B	20'	12"	14.3%	16.3%	NAG P300	GRASS

C SM–3 PARABOLIC SWALE DETAILS

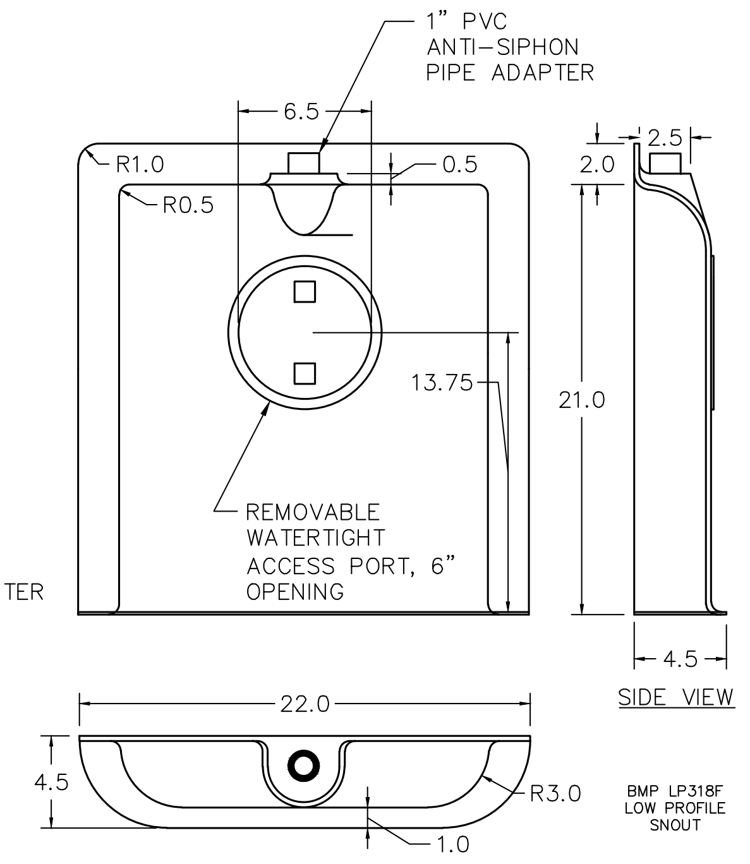
NOT TO SCALE


FABRIC OVERLAP
12" MIN.
APPROX. 1/4 D OR 12" MIN.
D
APPROX. 1/4 D
APPROX. 1/2 D
PA.DOT 2A MODIFIED AGGREGATE COMPACTED IN 8"–10" LOOSE LIFTS COMPACT TO AT LEAST 95% OF MAXIMUM DRY DENSITY PER ASTM D–698.
SINKHOLE; EXPOSE COMPETENT ROCK ON BOTTOM AND SIDES IF PRACTICAL. CLEAN EXCAVATION OF ALL LOOSE, SOFT, WET OTHERWISE DELETERIOUS MATERIAL. SLOPE OR SHORE EXCAVATION PER ALL OSHA AND OTHER APPLICABLE SAFETY REGULATIONS. SOIL SLOPES SHOULD BE NO STEEPER THAN 1.5H:1V.
CLAY CAP COMPACTED IN 12" (MAX.) LOOSE LIFTS. COMPACT TO AT LEAST 95% OF MAXIMUM DRY DENSITY PER ASTM D–698, W/MOISTURE CONTENT ±2% OF OPTIMUM. USE SUITABLE ON–SITE OR IMPORTED SOILS (CL OR CH PER ASTM D2487)
8 oz/sy (MIN) NON–WOVEN GEOTEXTILE FABRIC, MIRAFI S800 OR APPROVED EQUIVALENT. OVERLAP SEAMS MINIMUM 12"
AASHTO #57 AGGREGATE OR APPROVED ALTERNATE. COMPACTED W/EXCAVATOR TO ELIMINATE VOIDS
AASHTO #1 AGGREGATE OR APPROVED ALTERNATE. COMPACTED W/EXCAVATOR TO ELIMINATE VOIDS
BEDROCK

NOTES: Actual repair method should be designed and implemented by contractor based on actual sinkhole size, configuration and location. All sinkhole mitigation measures should be designed and approved by a PA–Licensed professional geologist or geotechnical engineer prior to implementation. DO NOT USE INVERTED FILTER REPAIR IF TOP OF ROCK IS NOT EXPOSED AT THE BASE OF THE REPAIR.

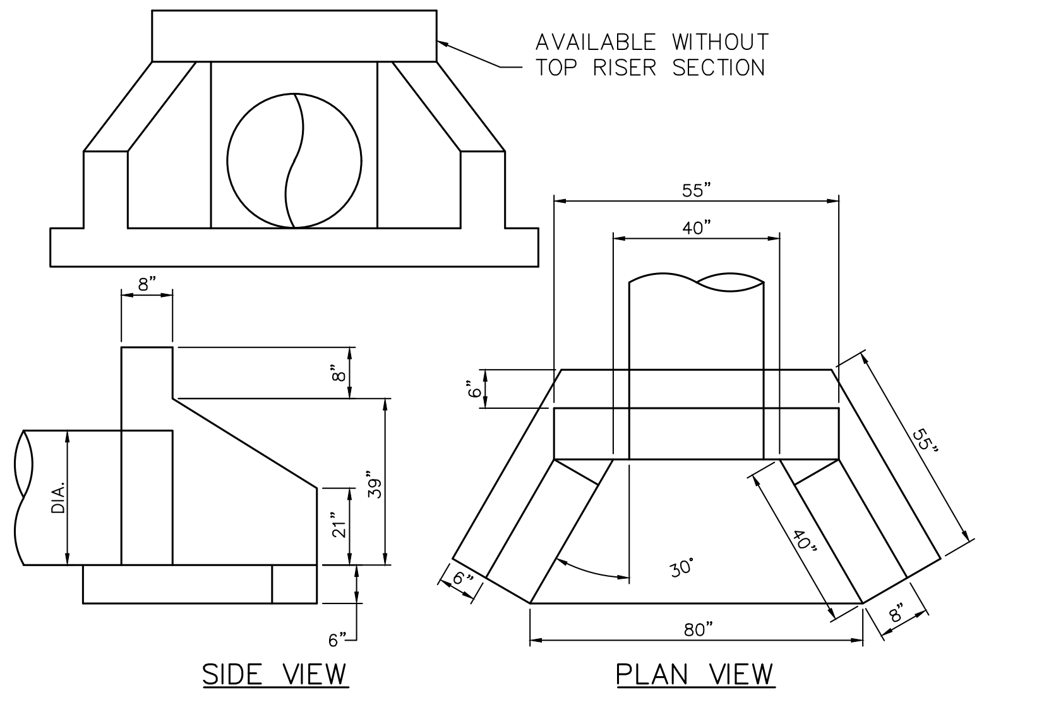
E SM–3 SINK HOLE REPAIR DETAIL - NO THROAT ENCOUNTERED

NOT TO SCALE


1" PVC ANTI–SIPHON PIPE ADAPTER
6.5
R1.0
R0.5
0.5
2.0
2.5
13.75
21.0
REMOVABLE WATERTIGHT ACCESS PORT, 6" OPENING
4.5
SIDE VIEW
22.0
4.5
R3.0
1.0
TOP VIEW
BMP LP318F LOW PROFILE SNOUT

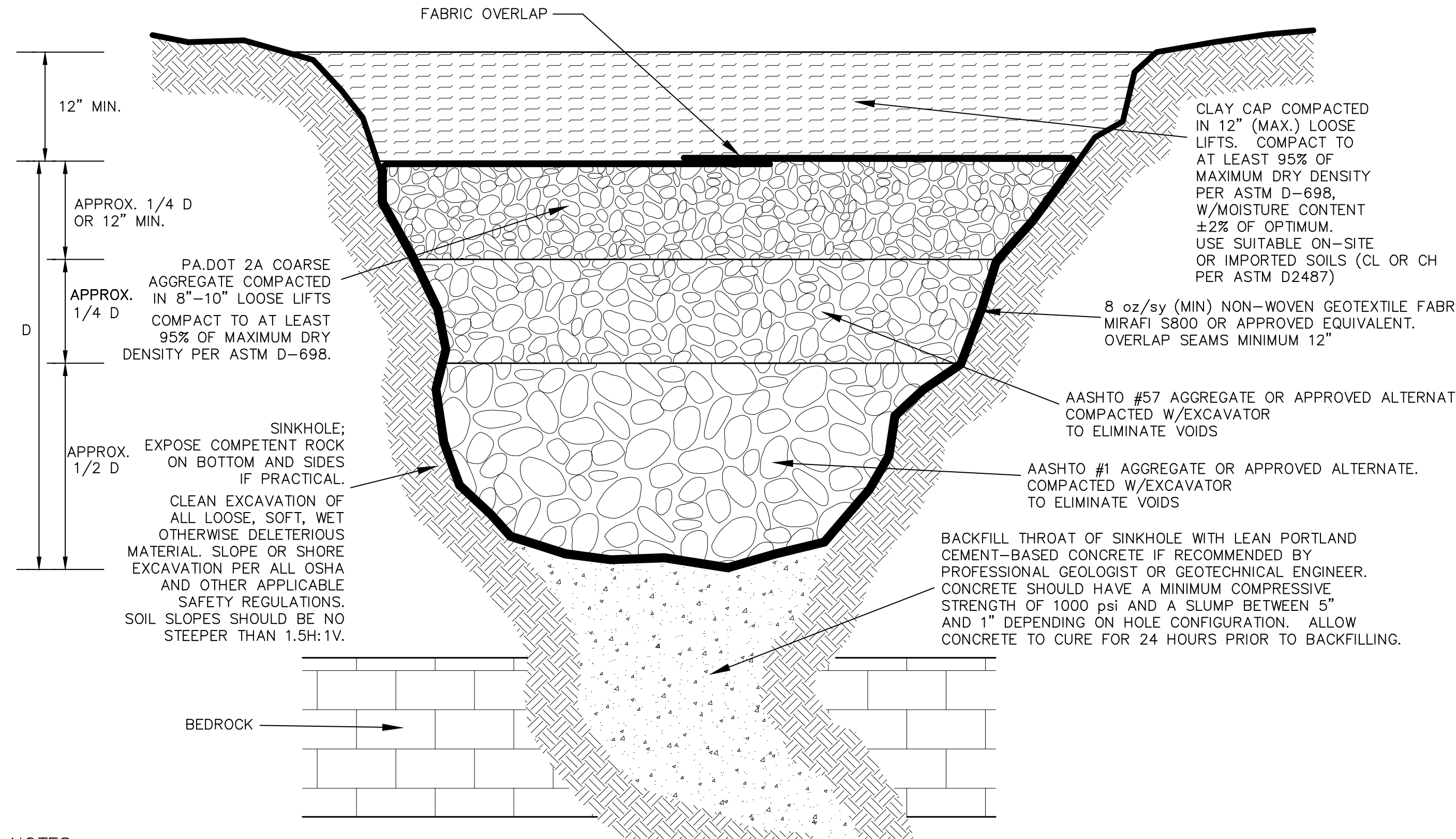
L SM–3 BMP LP318F LOW PROFILE SNOUT

NOT TO SCALE


AVAILABLE WITHOUT TOP RISER SECTION
55"
40"
8"
8"
30"
21"
39"
6"
30°
60°
80"
SIDE VIEW
PLAN VIEW

H SM–3 D-W ENDWALL DETAIL - MAX. PIPE SIZE 36 IN.

NOT TO SCALE


FABRIC OVERLAP
12" MIN.
APPROX. 1/4 D OR 12" MIN.
D
APPROX. 1/4 D
APPROX. 1/2 D
PA.DOT 2A COARSE AGGREGATE COMPACTED IN 8"–10" LOOSE LIFTS COMPACT TO AT LEAST 95% OF MAXIMUM DRY DENSITY PER ASTM D–698.
SINKHOLE; EXPOSE COMPETENT ROCK ON BOTTOM AND SIDES IF PRACTICAL. CLEAN EXCAVATION OF ALL LOOSE, SOFT, WET OTHERWISE DELETERIOUS MATERIAL. SLOPE OR SHORE EXCAVATION PER ALL OSHA AND OTHER APPLICABLE SAFETY REGULATIONS. SOIL SLOPES SHOULD BE NO STEEPER THAN 1.5H:1V.
CLAY CAP COMPACTED IN 12" (MAX.) LOOSE LIFTS. COMPACT TO AT LEAST 95% OF MAXIMUM DRY DENSITY PER ASTM D–698, W/MOISTURE CONTENT ±2% OF OPTIMUM. USE SUITABLE ON–SITE OR IMPORTED SOILS (CL OR CH PER ASTM D2487)
8 oz/sy (MIN) NON–WOVEN GEOTEXTILE FABRIC, MIRAFI S800 OR APPROVED EQUIVALENT. OVERLAP SEAMS MINIMUM 12"
AASHTO #57 AGGREGATE OR APPROVED ALTERNATE. COMPACTED W/EXCAVATOR TO ELIMINATE VOIDS
AASHTO #1 AGGREGATE OR APPROVED ALTERNATE. COMPACTED W/EXCAVATOR TO ELIMINATE VOIDS
BACKFILL THROAT OF SINKHOLE WITH LEAN PORTLAND CEMENT–BASED CONCRETE IF RECOMMENDED BY PROFESSIONAL GEOLOGIST OR GEOTECHNICAL ENGINEER. CONCRETE SHOULD HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1000 psi AND A SLUMP BETWEEN 5" AND 1" DEPENDING ON HOLE CONFIGURATION. ALLOW CONCRETE TO CURE FOR 24 HOURS PRIOR TO BACKFILLING.
BEDROCK

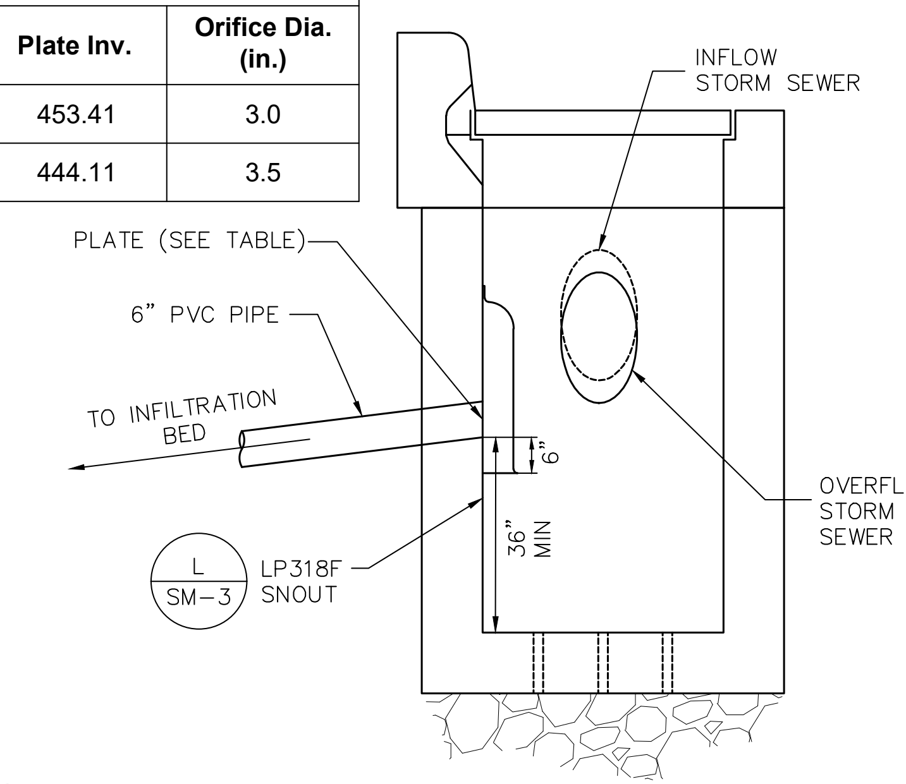
NOTES:

Actual repair method should be designed and implemented by contractor based on actual sinkhole size, configuration and location. All sinkhole mitigation measures should be designed and approved by a PA–Licensed professional geologist or geotechnical engineer prior to implementation. Throat should not be filled with cement if opening should be maintained to continue to convey water movement.

F SM–3 SINK HOLE REPAIR DETAIL - THROAT ENCOUNTERED

NOT TO SCALE

DIVERSION INLETS		
Inlet	Plate Inv.	Orifice Dia. (in.)
I-9	453.41	3.0
I-6	444.11	3.5


INFLOW STORM SEWER
PLATE (SEE TABLE)
6" PVC PIPE
TO INFILTRATION BED
6"
36" MIN
L SM–3 LP318F SNOUT
OVERFLOW STORM SEWER

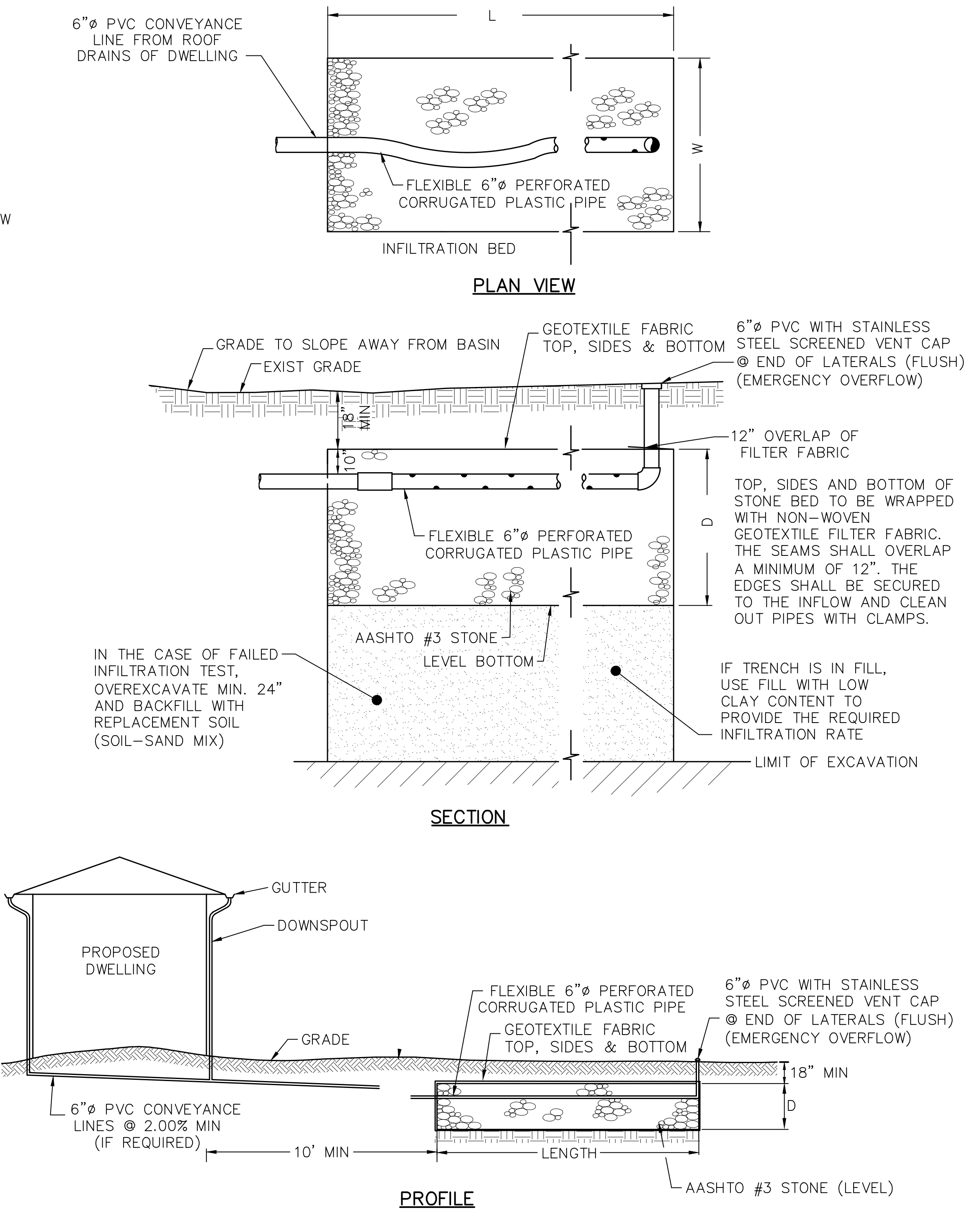
K SM–3 DIVERSION INLET DETAIL

NOT TO SCALE

NOTES:

1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY:
   BEST MANAGEMENT PRODUCTS, INC.
   9 MATHEWS DRIVE, UNIT A1–A2.
   EAST HADDAM, CT 06423
   TOLL FREE: (800) 504–8008 OR (888) 434–0277, FAX: (877) 434–3197
   WEB SITE: www.bmpinc.com
   OR PRE–APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI–SIPHON VENT PIPE AND ELBOW AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOUT SIZE ALWAYS LARGER THAN PIPE SIZE).
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI–SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.
8. ALL STRUCTURE JOINTS SHALL BE WATERTIGHT.
9. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL–RESISTANT GASKET AS SUPPLIED BY MANUFACTURER (SEE INSTALLATION DETAIL)
10. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE:
    - A. INSTALLATION INSTRUCTIONS
    - B. PVC ANTI–SIPHON VENT PIPE AND ADAPTER
    - C. OIL–RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
    - D. 3/8" STAINLESS STEEL BOLTS
    - E. ANCHOR SHIELDS

INFILTRATION BEDS					
BMP	Lot	Length (ft)	Width (ft)	Depth (ft)	Bottom Elev.
BMP-002	893-A	53'	9'	2'	437.00
	893-B	50'	9'	2'	433.00
	893-C	44'	9'	2'	429.00
BMP-003	894-A	97'	9'	2'	431.00
	894-B	87'	9'	2'	425.00
BMP-004	895-A	41'	6'	2'	438.00
	895-B	46'	9'	2'	432.00
	896-A	63'	15'	2'	445.00
	896-B	71'	6'	2'	444.00
	896-C	75'	6'	2'	439.00
BMP-005	901	50'	20'	2'	478.00
BMP-006	903	50'	20'	2'	473.00
BMP-007	905	50'	30'	2'	457.00


6"ø PVC CONVEYANCE LINE FROM ROOF DRAINS OF DWELLING
L
W
FLEXIBLE 6"ø PERFORATED CORRUGATED PLASTIC PIPE
INFILTRATION BED
PLAN VIEW
GRADE TO SLOPE AWAY FROM BASIN
EXIST GRADE
GEOTEXTILE FABRIC TOP, SIDES & BOTTOM
6"ø PVC WITH STAINLESS STEEL SCREENED VENT CAP @ END OF LATERALS (FLUSH) (EMERGENCY OVERFLOW)
18" MIN
12" OVERLAP OF FILTER FABRIC
TOP, SIDES AND BOTTOM OF STONE BED TO BE WRAPPED WITH NON–WOVEN GEOTEXTILE FILTER FABRIC. THE SEAMS SHALL OVERLAP A MINIMUM OF 12". THE EDGES SHALL BE SECURED TO THE INFLOW AND CLEAN OUT PIPES WITH CLAMPS.
FLEXIBLE 6"ø PERFORATED CORRUGATED PLASTIC PIPE
D
AASHTO #3 STONE LEVEL BOTTOM
IN THE CASE OF FAILED INFILTRATION TEST, OVEREXCAVATE MIN. 24" AND BACKFILL WITH REPLACEMENT SOIL (SOIL–SAND MIX)
IF TRENCH IS IN FILL, USE FILL WITH LOW CLAY CONTENT TO PROVIDE THE REQUIRED INFILTRATION RATE
LIMIT OF EXCAVATION
SECTION
GUTTER
DOWNSPOUT
PROPOSED DWELLING
FLEXIBLE 6"ø PERFORATED CORRUGATED PLASTIC PIPE
6"ø PVC WITH STAINLESS STEEL SCREENED VENT CAP @ END OF LATERALS (FLUSH) (EMERGENCY OVERFLOW)
GEOTEXTILE FABRIC TOP, SIDES & BOTTOM
GRADE
18" MIN
D
6"ø PVC CONVEYANCE LINES @ 2.00% MIN (IF REQUIRED)
10' MIN
LENGTH
AASHTO #3 STONE (LEVEL)
PROFILE

J SM–3 ON-LOT INFILTRATION BED DETAILS

NOT TO SCALE

INFILTRATION BED NOTES:

1. ALL ROOF AREAS ON ALL HOUSES, EXCEPT AS NOTED, SHALL DRAIN TO A STORMWATER BED. MULTIPLE BEDS MAY BE USED ON ONE HOME. THE BOTTOM OF THE BED MUST BE LEVEL.
2. **CONSTRUCTION OF THE BED IS A CRITICAL COMPONENT OF PCSM PLAN AND ALL EXCAVATION AND CONSTRUCTION OF THE INFILTRATION BED MUST BE OVERSEEN BY A PROFESSIONAL ENGINEER OR PROFESSIONAL GEOLOGIST.**
3. THE TRENCH SHALL INITIALLY BE EXCAVATED TO THE BOTTOM. TWO INFILTRATION TESTS SHALL THEN BE PERFORMED AT THE BOTTOM ELEVATION. IF ONE OR BOTH TESTS FAIL TO REACH THE DESIGN RATE, OVER–EXCAVATE THE BOTTOM TWO FEET AND REPLACE WITH AMENDED SOILS.
4. LINE HOLE WITH FILTER FABRIC AND FILL WITH AASHTO #3 STONE TO A DEPTH OF 25" INCHES. WRAP FILTER FABRIC OVER TOP OF STONE AND COVER TOP WITH ADDITIONAL FILTER FABRIC. ALL SEAMS MUST OVERLAP A MINIMUM OF 12".
5. COVER STONE BED WITH A MINIMUM 18" OF TOP SOIL. DO NOT COMPACT. SEED AND MULCH DISTURBED AREA TO STABILIZE GROUND.

Sheet Number:
23 of 32

Project Number:
15–100–32

Date:
MAY 17, 2024

ARCONA NEIGHBORHOOD 9
Lower Allen Township - Cumberland County, PA
CHARTER Homes & Neighborhoods

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: THOMAS K. PHILLIPS PLS	Scale: AS NOTED

Seal:
G. MITCHELL KING
ENGINEER
No. PE36683-E
1/17/25

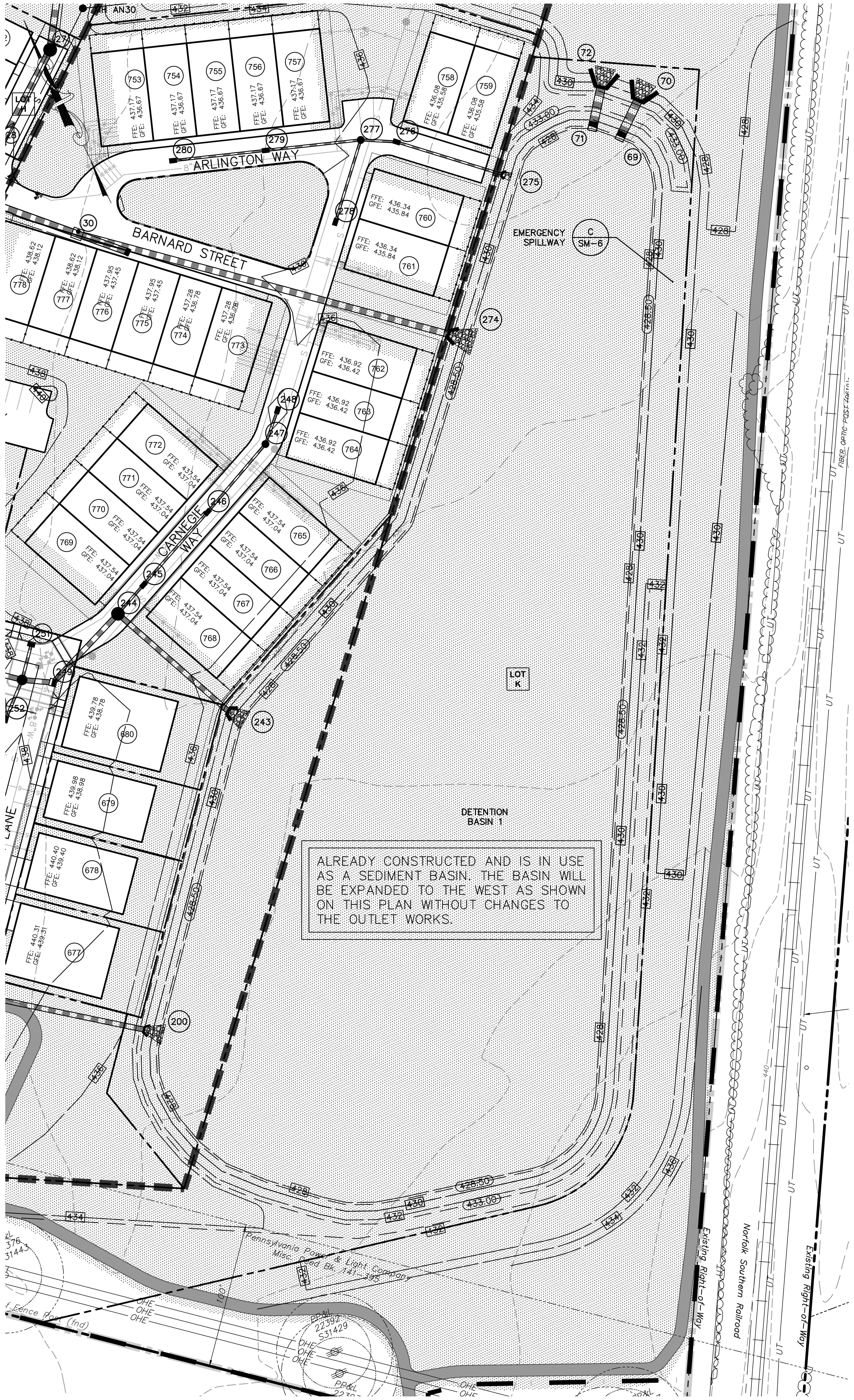
TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
–	–
1/17/25	REV. TO ADDRESS T.E. REV. LTR. DATED 1/20/25
12/18/24	REV. FOR T.E. LTR., 2:1 SLOPES, PAWC PLAN
10/17/24	REV. TO ADDRESS T.E. REV. LTR. DATED 7/31/24
9/30/24	REVISED PER CH&N 8/21/24 COMMENTS
7/25/24	UPDATED LOT GRADING
7/8/24	REV. PER CLIENT & T.E. REV. LTR. DATED 6/14/24

Section Number:
SM–3

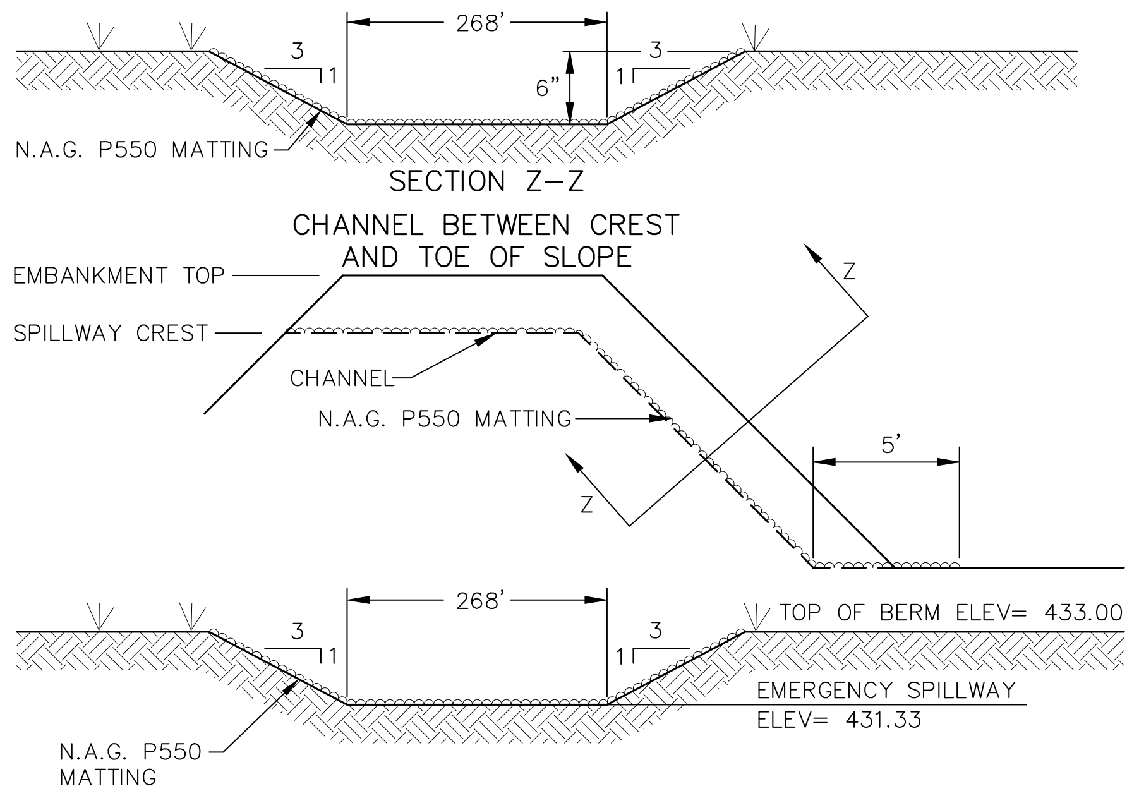
1/22/2025 3:51 PM L:\15–100–32\SHEETS\PRELIM–FINAL\23 SM–03.DWG

PRELIMINARY/FINAL

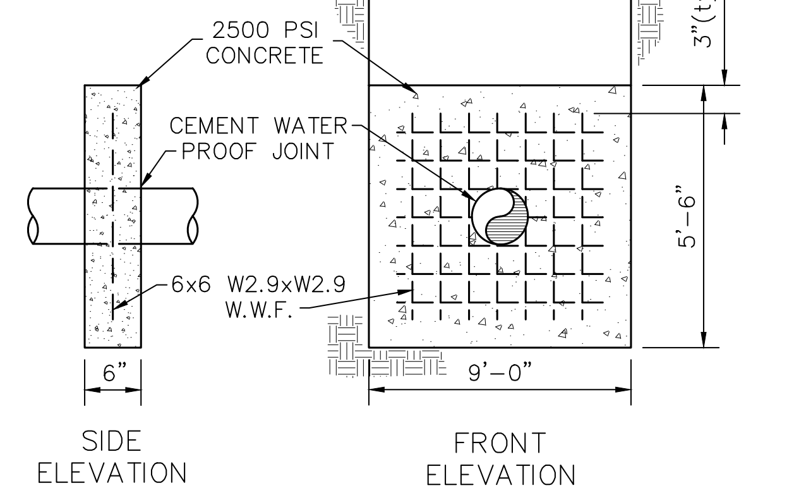

ARLINGTON WAY
BARNARD STREET
CARNEGIE WAY
LANE
EMERGENCY SPILLWAY
C
SM-6
LOT K
DETENTION BASIN 1
Pennsylvania Power & Light Company
Existing Right-of-Way
Norfolk Southern Railroad
FIBER OPTIC POST MARKER
OHE
UT

ALREADY CONSTRUCTED AND IS IN USE AS A SEDIMENT BASIN. THE BASIN WILL BE EXPANDED TO THE WEST AS SHOWN ON THIS PLAN WITHOUT CHANGES TO THE OUTLET WORKS.

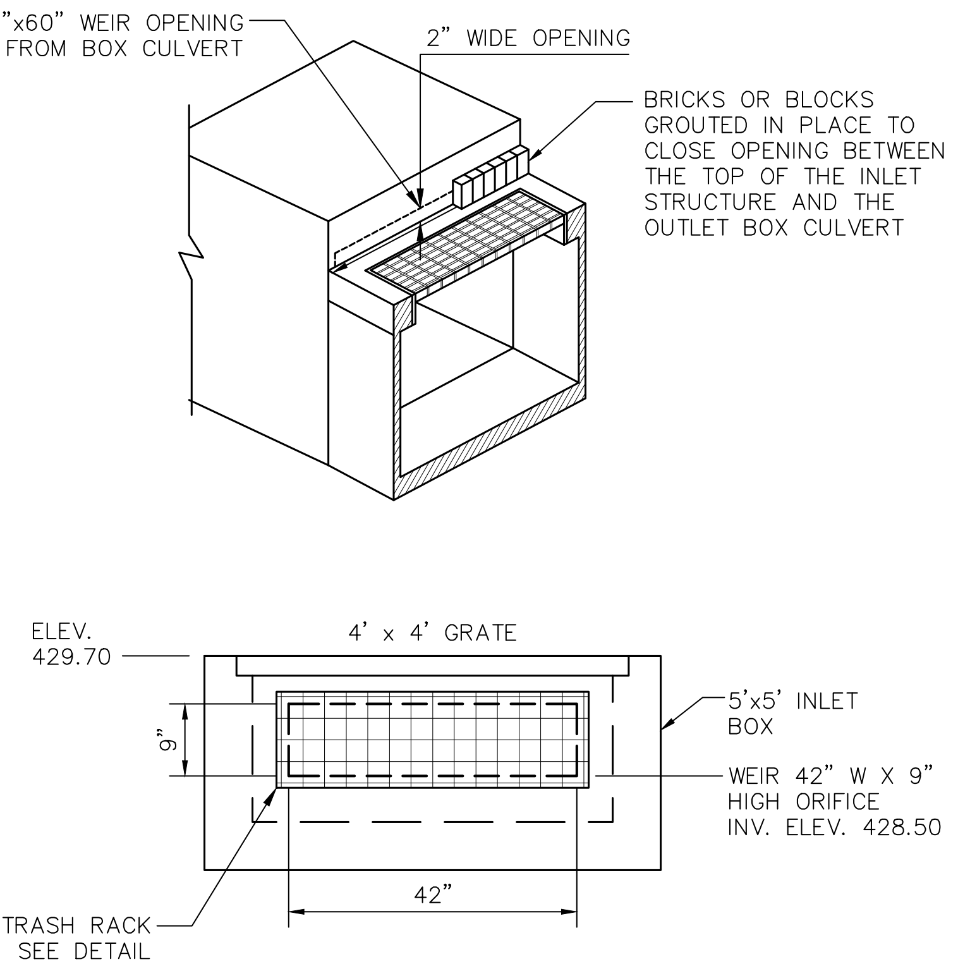
A
SM-4
DETENTION BASIN 1 - PLAN
SCALE: 1" = 50'


268'
3
1
6"
N.A.G. P550 MATTING
SECTION Z-Z
CHANNEL BETWEEN CREST AND TOE OF SLOPE
EMBANKMENT TOP
SPILLWAY CREST
CHANNEL
N.A.G. P550 MATTING
Z
5'
TOP OF BERM ELEV= 433.00
EMERGENCY SPILLWAY ELEV= 431.33
N.A.G. P550 MATTING

C
SM-4
EMERGENCY SPILLWAY
NOT TO SCALE


2500 PSI CONCRETE
CEMENT WATER-PROOF JOINT
6x6 W2.9xW2.9 W.W.F.
3"(typ)
5'-6"
6"
9'-0"
SIDE ELEVATION
FRONT ELEVATION

D
SM-4
ANTI-SEEP COLLAR
NOT TO SCALE


2"x60" WEIR OPENING FROM BOX CULVERT
2" WIDE OPENING
BRICKS OR BLOCKS GROUTED IN PLACE TO CLOSE OPENING BETWEEN THE TOP OF THE INLET STRUCTURE AND THE OUTLET BOX CULVERT
ELEV. 429.70
4' x 4' GRATE
9"
5'x5' INLET BOX
WEIR 42" W X 9" HIGH ORIFICE INV. ELEV. 428.50
42"
TRASH RACK SEE DETAIL

E
SM-4
BASIN OUTLET - I-75 & I-77
NOT TO SCALE

ALREADY CONSTRUCTED AND IS IN USE AS A SEDIMENT BASIN. THE BASIN WILL BE EXPANDED TO THE WEST AS SHOWN ON THIS PLAN WITHOUT CHANGES TO THE OUTLET WORKS.

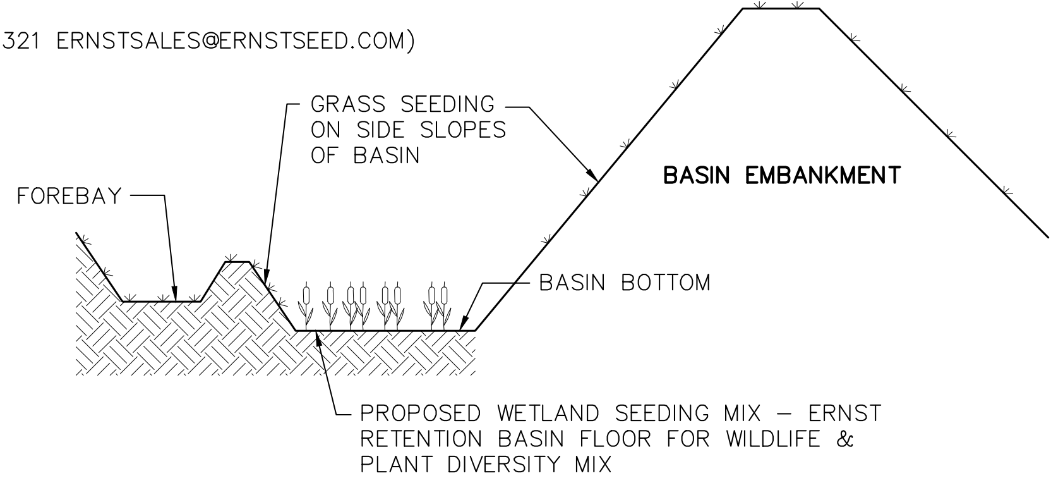
WETLAND SEEDING MIX FOR BOTTOM OF BASINS:

Retention Basin Floor Seeding for Wildlife & Plant Diversity Mix
Description: ERNMX-127
Seeding Rate: 15 bulk lbs per acre or 1/3-1/2 lbs per 1,000 ft2

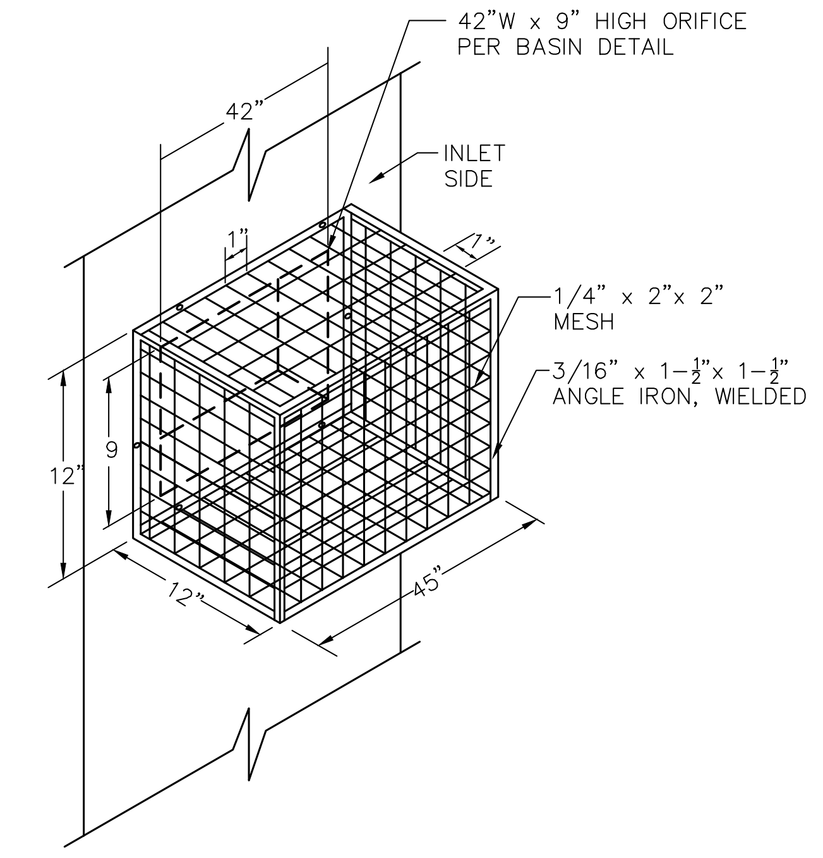
Species List
Agrostis perennans (Autumn Bentgrass)
Agrostis scabra (Ticklegrass (Rough Bentgrass))
Aster puniceus (Symphyotrichum puniceum) (Purple Stemmed Aster)
Bidens cernua (Nodding Bur Marigold)
Carex scoparia (Blunt Broom Sedge)
Carex vulpinoidea (Fox Sedge)
Elymus virginicus (Virginia Wild Rye)
Juncus effusus (Soft Rush)
Juncus tenuis (Path Rush)
Mimulus ringens (Square Stemmed Monkey Flower)
Poa palustris (Fowl Bluegrass)
Scirpus cyperinus (Woolgrass)
Verbena hastata (Blue Vervain)

(800-873-3321 ERNSTSALES@ERNSTSEED.COM)

NOTES:
1. INSTALL WETLAND SEEDING MIX UPON CONVERSION OF SEDIMENT BASIN TO PERMANENT DETENTION BASIN CONDITION (AFTER STABILIZATION OF SITE). COVER SEEDING WITH NAG S75 STRAW MATTING.
2. ONE YEAR AFTER CONVERSION OF TO CONSTRUCTED WETLANDS BOTTOM, CONTACT A WETLANDS SCIENTIST. PROJECT WETLANDS CONSULTANT IS BRAD GOCHNAUER (717-509-3934).
3. THE WETLANDS CONSULTANT WILL SPECIFY ADDITIONAL WETLANDS PLANTINGS REQUIRED TO COMPLETE THE WETLANDS BASED ON THE BASE FLOW AND GROWTH ZONES. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PA BMP MANUAL. ALL WETLANDS PLANTINGS TO BE UNDER SUPERVISION OF A WETLANDS SCIENTIST.

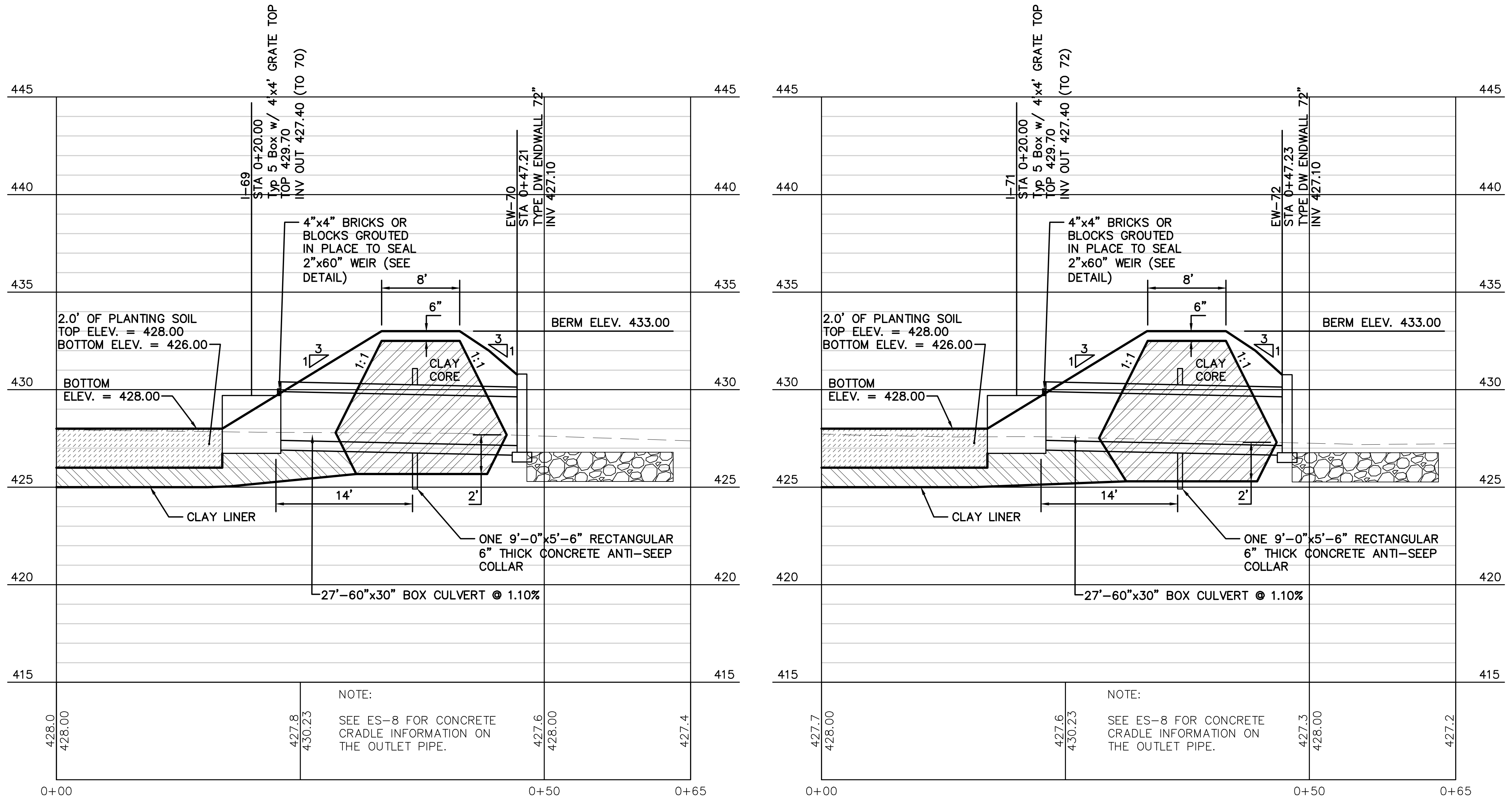

GRASS SEEDING ON SIDE SLOPES OF BASIN
FOREBAY
BASIN EMBANKMENT
BASIN BOTTOM
PROPOSED WETLAND SEEDING MIX - ERNST RETENTION BASIN FLOOR FOR WILDLIFE & PLANT DIVERSITY MIX

G
SM-4
WETLANDS PLANTING
NOT TO SCALE


42"W x 9" HIGH ORIFICE PER BASIN DETAIL
42"
INLET SIDE
1/4" x 2"x 2" MESH
3/16" x 1-1/2" x 1-1/2" ANGLE IRON, WELDED
9
12"
12"
45"

NOTE:
HOT DIPPED GALVANIZED TRASH RACK CENTERED OVER ORIFICE & FASTENED TO INLET BOX WITH (6) SS 1/4" x 2" ANCHOR BOLTS

F
SM-4
TRASH RACK - RECTANGULAR ORIFICE
NOT TO SCALE


445
440
435
430
425
420
415
I-69
STA 0+20.00
Typ 5 Box w/ 4x4' GRATE TOP
TOP 429.70
INV OUT 427.40 (TO 70)
EW-70
STA 0+47.21
TYPE DW ENDWALL 72"
INV 427.10
I-71
STA 0+20.00
Typ 5 Box w/ 4x4' GRATE TOP
TOP 429.70
INV OUT 427.40 (TO 72)
EW-72
STA 0+47.23
TYPE DW ENDWALL 72"
INV 427.10
4"x4" BRICKS OR BLOCKS GROUTED IN PLACE TO SEAL 2"x60" WEIR (SEE DETAIL)
8'
6"
2.0' OF PLANTING SOIL
TOP ELEV. = 428.00
BOTTOM ELEV. = 426.00
BERM ELEV. 433.00
CLAY CORE
BOTTOM ELEV. = 428.00
3
1
1:1
14'
2'
CLAY LINER
ONE 9'-0"x5'-6" RECTANGULAR 6" THICK CONCRETE ANTI-SEEP COLLAR
27'-60"x30" BOX CULVERT @ 1.10%
NOTE:
SEE ES-8 FOR CONCRETE CRADLE INFORMATION ON THE OUTLET PIPE.
428.00
428.00
427.8
430.23
427.6
428.00
427.4
427.7
428.00
427.6
430.23
427.3
428.00
427.2
0+00
0+50
0+65

B
SM-4
DETENTION BASIN 1 - CROSS SECTIONS
SCALE: HORIZONTAL - 1" = 10' / VERTICAL - 1" = 5'

DETENTION BASIN EMBANKMENT SPECIFICATIONS

COMPACTION:
THE EMBANKMENT FILL & CLAY CORE SHALL BE PLACED IN 6 INCH HORIZONTAL LAYERS CONDITIONED TO OPTIMUM MOISTURE CONTENT, AND COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DENSITY PER THE MODIFIED PROCTOR TEST. THE CONTRACTOR SHALL MAINTAIN THE MOISTURE CONTENT OF THE FILL MATERIAL AS REQUIRED TO PROVIDE THIS REQUIRED DENSITY.

MATERIAL:
EARTH SUBSOIL - COHESIVE SOILS WITHOUT LARGE STONES OR ORGANIC MATTER.
CLAY CORE - SANDY CLAY OR SILTY CLAY LOAM
STRIP EXISTING TOPSOIL FROM FOOTPRINT OF EMBANKMENT.

Sheet Number:
24 of 40
Project Number:
15-100-34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3
Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

POST CONSTRUCTION STORMWATER MANAGEMENT BASIN DETAILS

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER	
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –	
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: 1"=50'	0 25 50 100 150

Seal:
G. MITCHELL KING
No. PE36683-E
1/7/25

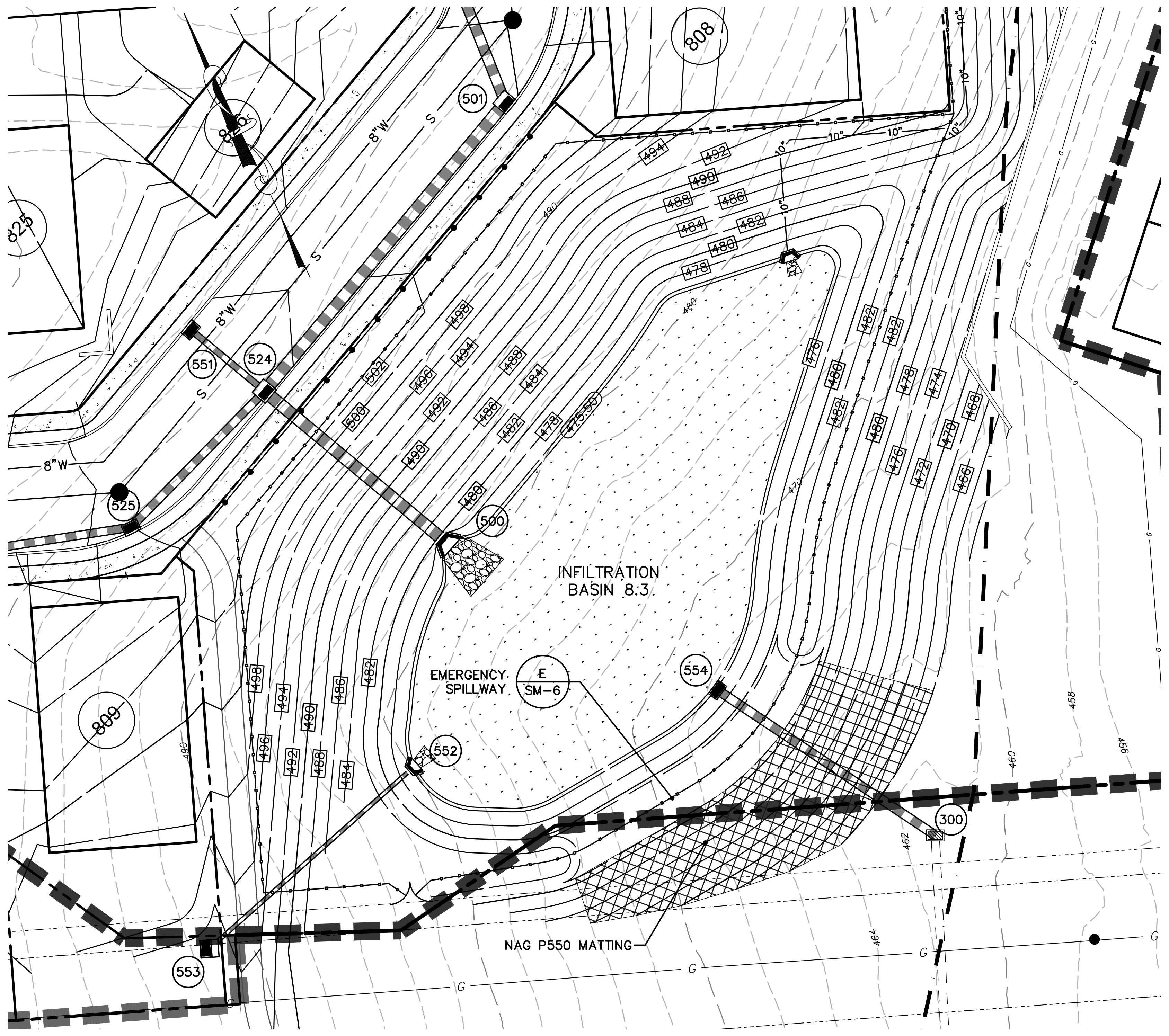
TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
SM-4

1/21/2025 12:53 PM L:\15-100-34\SHEETS\PRELIMINARY\24 SM-04.DWG

PRELIMINARY / FINAL


808
501
825
551
524
525
500
INFILTRATION BASIN 8.3
EMERGENCY SPILLWAY
SM-6
554
552
300
809
553
NAG P550 MATTING
8"W
S
G

INFILTRATION BASIN 8.3 - PLAN

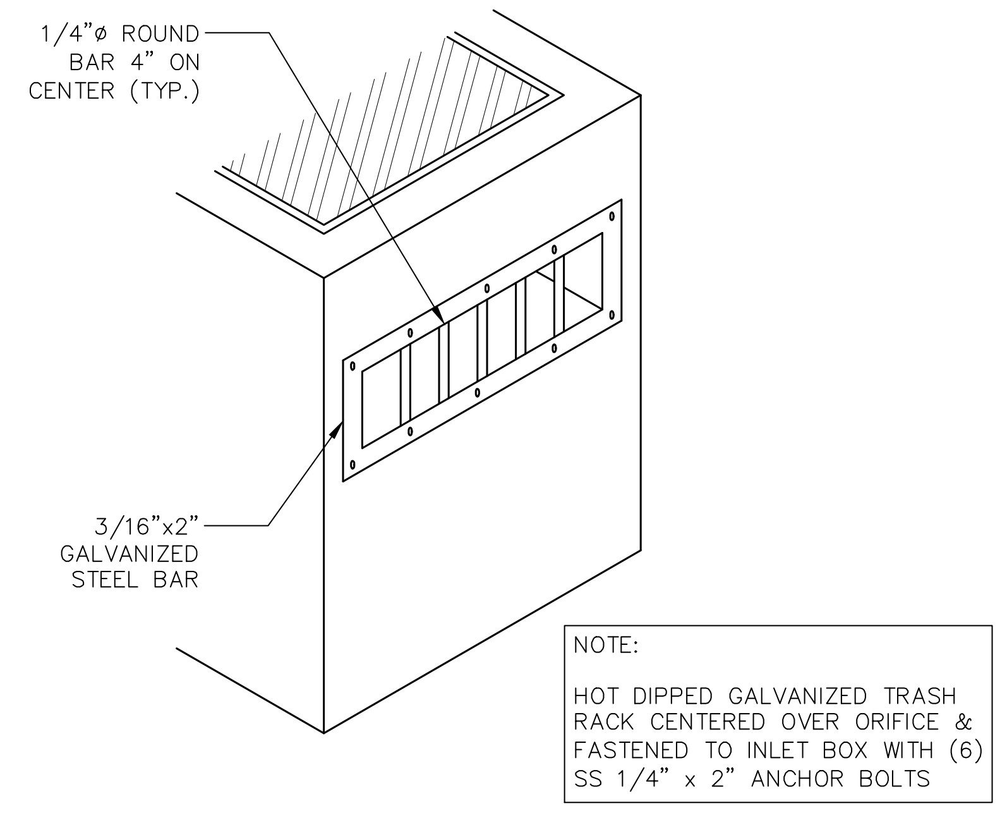
A / SM-5
SCALE: 1" = 30'

GENERAL NOTES:

- The responsible geotechnical professional shall provide infiltration testing of the bottom of the infiltration areas during construction/conversion of the facilities. Documentation of the testing shall be provided to the municipality.
- The subgrade shall be appropriately prepared for infiltration during final conversion of the facilities to permanent stormwater management facilities.
- The Municipal Engineer shall be notified when the subgrade is prepared.
- The facility shall be protected against sediment laden runoff at all times.
- Permanent and full establishment of the specified bmp plantings (or approved equal) is required. Measures to ensure the full and proper germination of the bmp plantings shall be implemented accordingly during the vegetative establishment of the basin bottom, including: watering, overseeding, reseeding, erosion prevention measures, seed washing prevention measures, stabilization measures, weed control, etc.
- A qualified professional shall inspect, certify, and provide documentation to the municipality that the final bmp vegetation meets the requirements of the approved planting plan, is fully established, and is free from invasive plants.
- A professional geologist shall oversee excavation of the basin to subgrade below the planting soil. Any karst pinnacles or other anomalies shall be remediated per the PG's direction. A minimum of 2 foot of subsoil shall underlay all parts of the subgrade below the planting soil in the basin.
- Three double-ring infiltrometer tests shall be conducted after the basin reaches subgrade below the planting soil. Test results shall be shared with Lower Allen Township, the professional geologist and professional engineer overseeing the work. Remediation may be required if the basin subgrade does not meet the design parameters.

BIOFILTER PLANTING SOIL SPECIFICATION

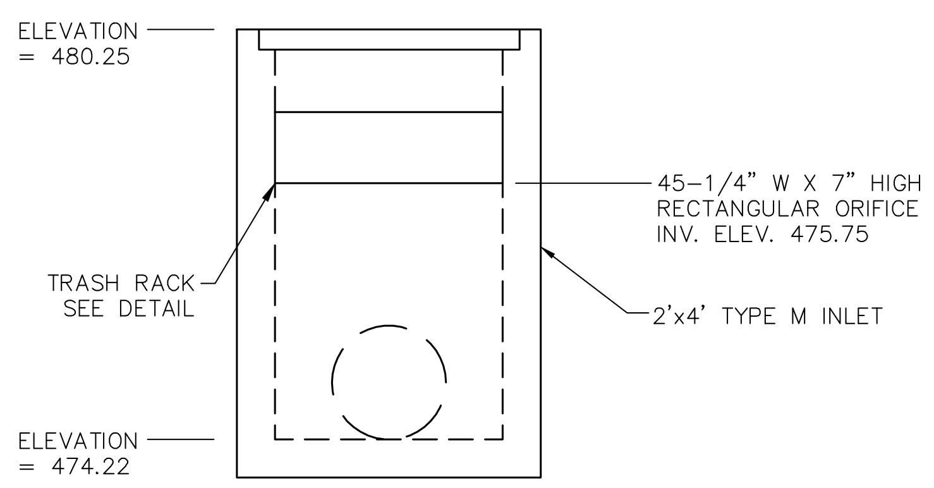
Planting Soil shall be a loam capable of supporting a healthy vegetative cover. Soils shall be amended with composted organic material. A typical organic amended soil is combined with 20–30% organic material and 70–80% topsoil. The topsoil shall be free of clays and fines. The proposed Planting Soil mix shall be laboratory tested to provide between 2.0 inches/hour and no more than 6.0 inches/hour infiltration rate through the planting soil BEFORE installation in the basin. Results of this testing shall be provided to the professional engineer overseeing construction and to the Lower Allen Township Engineer. The engineering and testing of the planting soil mix is a critical stage of construction that will help prevent formation of sinkholes on this active karst area site.


1/4"ø ROUND BAR 4" ON CENTER (TYP.)
3/16"x2" GALVANIZED STEEL BAR

NOTE:
HOT DIPPED GALVANIZED TRASH RACK CENTERED OVER ORIFICE & FASTENED TO INLET BOX WITH (6) SS 1/4" x 2" ANCHOR BOLTS

BASIN OUTLET - TRASH RACK

C / SM-5
NOT TO SCALE


ELEVATION = 480.25
TRASH RACK SEE DETAIL
ELEVATION = 474.22
45-1/4" W X 7" HIGH RECTANGULAR ORIFICE INV. ELEV. 475.75
2'x4' TYPE M INLET

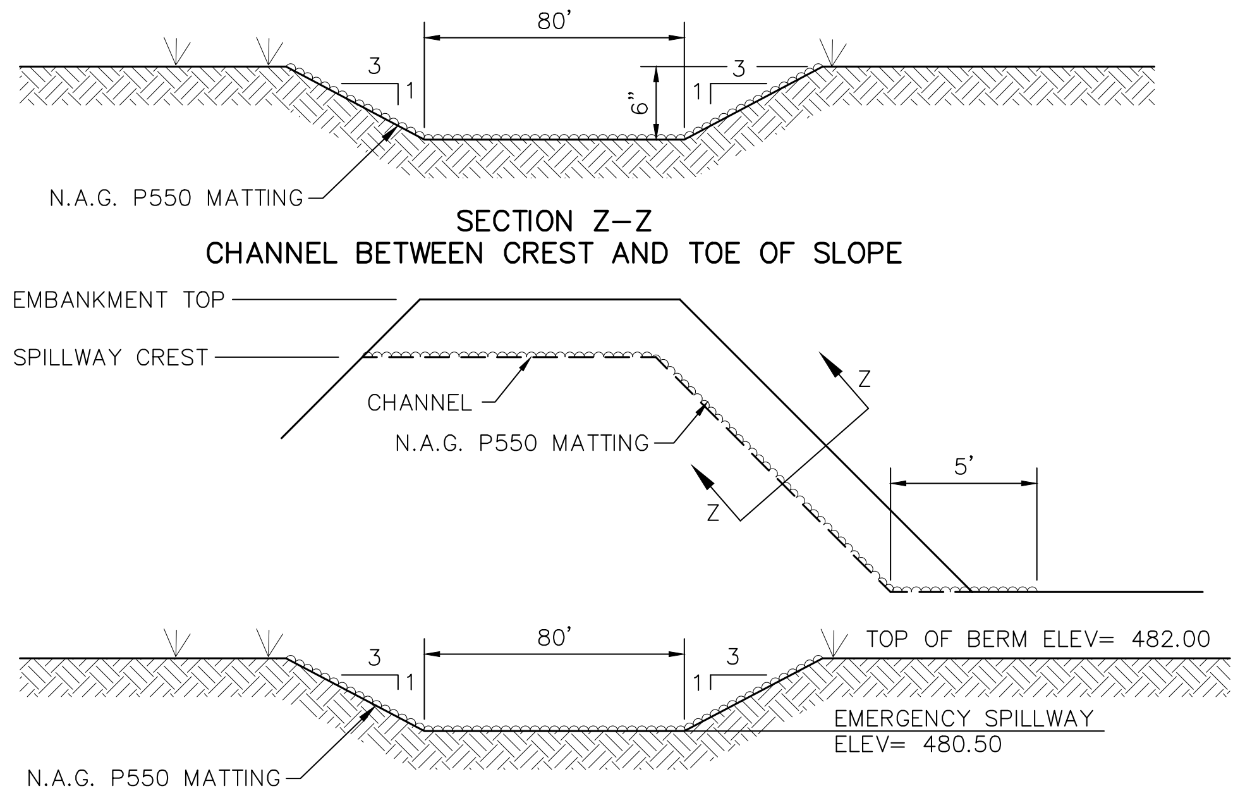
BASIN OUTLET - STRUCTURE

D / SM-5
NOT TO SCALE

DETENTION BASIN EMBANKMENT SPECIFICATIONS

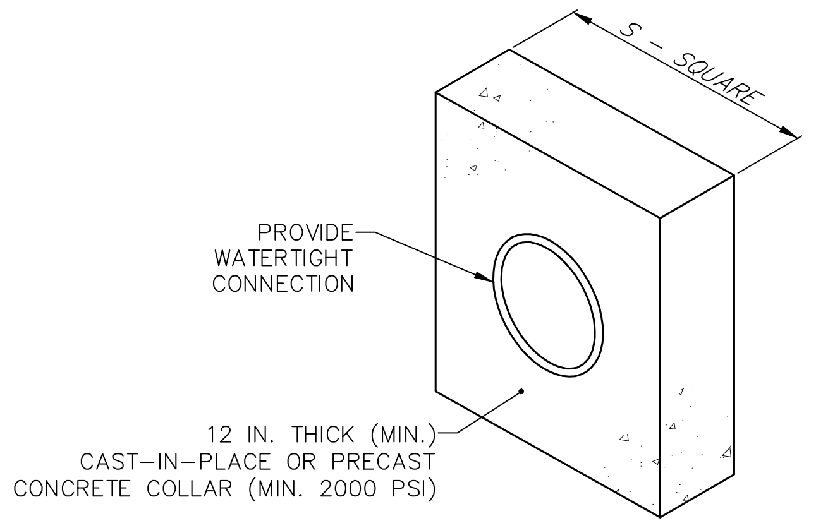
COMPACTION:
THE EMBANKMENT FILL & CLAY CORE SHALL BE PLACED IN 6 INCH HORIZONTAL LAYERS CONDITIONED TO OPTIMUM MOISTURE CONTENT, AND COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DENSITY PER THE MODIFIED PROCTOR TEST. THE CONTRACTOR SHALL MAINTAIN THE MOISTURE CONTENT OF THE FILL MATERIAL AS REQUIRED TO PROVIDE THIS REQUIRED DENSITY.

MATERIAL:
EARTH SUBSOIL – COHESIVE SOILS WITHOUT LARGE STONES OR ORGANIC MATTER.
CLAY CORE – SANDY CLAY OR SILTY CLAY LOAM
STRIP EXISTING TOPSOIL FROM FOOTPRINT OF EMBANKMENT.


80'
3
1
6"
N.A.G. P550 MATTING
SECTION Z–Z
CHANNEL BETWEEN CREST AND TOE OF SLOPE
EMBANKMENT TOP
SPILLWAY CREST
CHANNEL
N.A.G. P550 MATTING
Z
5'
TOP OF BERM ELEV= 482.00
EMERGENCY SPILLWAY ELEV= 480.50
N.A.G. P550 MATTING

EMERGENCY SPILLWAY CROSS-SECTION

E / SM-5
NOT TO SCALE


S – SQUARE
PROVIDE WATERTIGHT CONNECTION
12 IN. THICK (MIN.) CAST–IN–PLACE OR PRECAST CONCRETE COLLAR (MIN. 2000 PSI)

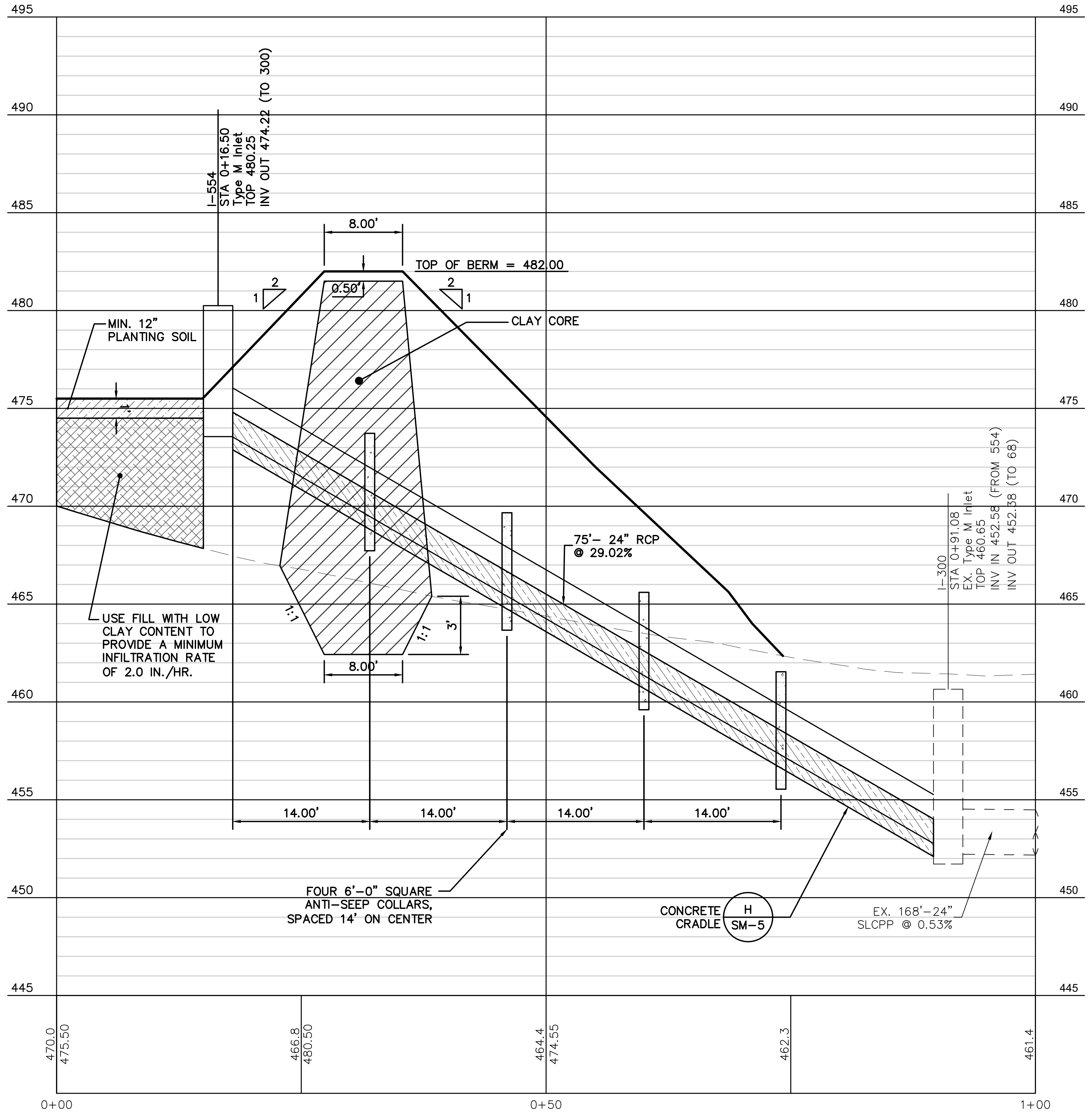
BASIN OR TRAP NO.	PIPE SIZE (IN)	S (IN)	NO. OF COLLARS	RISER TO FIRST COLLAR (FT)	COLLAR SPACING (FT)
BS 8.3	24"	6'–0"	4	14'	14'

NOTES:

- ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT.
- COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

CONCRETE ANTI-SEEP COLLAR #7-16

F / SM-5
NOT TO SCALE


495
490
485
480
475
470
465
460
455
450
445
I–554 STA 0+16.50 Type M Inlet TOP 480.25 INV OUT 474.22 (TO 300)
8.00'
TOP OF BERM = 482.00
0.50'
2
1
CLAY CORE
MIN. 12" PLANTING SOIL
USE FILL WITH LOW CLAY CONTENT TO PROVIDE A MINIMUM INFILTRATION RATE OF 2.0 IN./HR.
1:1
3'
8.00'
75'– 24" RCP @ 29.02%
I–300 STA 0+91.08 EX. Type M Inlet TOP 460.65 INV IN 452.58 (FROM 554) INV OUT 452.38 (TO 68)
14.00'
14.00'
14.00'
14.00'
FOUR 6'–0" SQUARE ANTI–SEEP COLLARS, SPACED 14' ON CENTER
CONCRETE CRADLE H SM–5
EX. 168'–24" SLCPP @ 0.53%
470.0
475.50
466.8
480.50
464.4
474.55
462.3
461.4
0+00
0+50
1+00

INFILTRATION BASIN 8.3 - CROSS SECTION

B / SM-5
SCALE: HORIZONTAL – 1" = 10' / VERTICAL – 1" = 5'

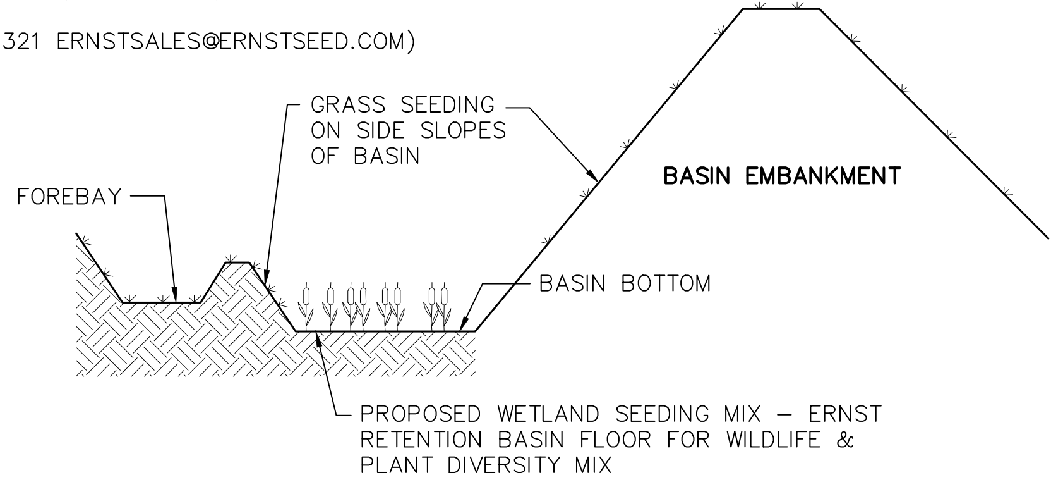
WETLAND SEEDING MIX FOR BOTTOM OF BASINS:

Retention Basin Floor Seeding for Wildlife & Plant Diversity Mix
Description: ERNMX–127
Seeding Rate: 15 bulk lbs per acre or 1/3–1/2 lbs per 1,000 ft2

Species List
Agrostis perennans (Autumn Bentgrass)
Agrostis scabra (Ticklegrass (Rough Bentgrass))
Aster puniceus (Symphyotrichum puniceum) (Purple Stemmed Aster)
Bidens cernua (Nodding Bur Marigold)
Carex scoparia (Blunt Broom Sedge)
Carex vulpinoidea (Fox Sedge)
Elymus virginicus (Virginia Wild Rye)
Juncus effusus (Soft Rush)
Juncus tenuis (Path Rush)
Mimulus ringens (Square Stemmed Monkey Flower)
Poa palustris (Fowl Bluegrass)
Scirpus cyperinus (Woolgrass)
Verbena hastata (Blue Vervain)

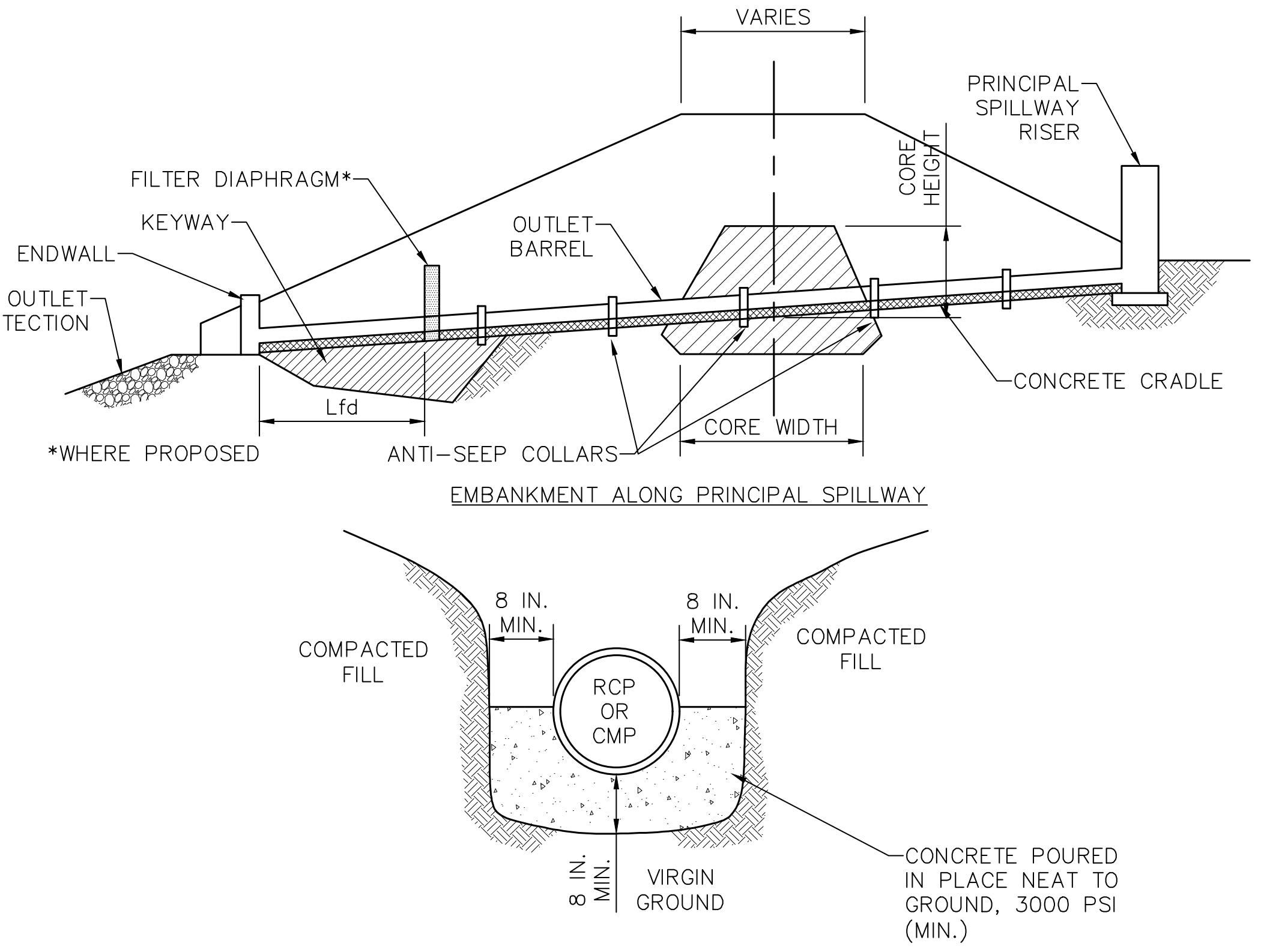
(800–873–3321 ERNSTSALES@ERNSTSEED.COM)

NOTES:
1. INSTALL WETLAND SEEDING MIX UPON CONVERSION OF SEDIMENT BASIN TO PERMANENT DETENTION BASIN CONDITION (AFTER STABILIZATION OF SITE). COVER SEEDING WITH NAG S75 STRAW MATTING.
2. ONE YEAR AFTER CONVERSION OF TO CONSTRUCTED WETLANDS BOTTOM, CONTACT A WETLANDS SCIENTIST. PROJECT WETLANDS CONSULTANT IS BRAD GOCHNAUER (717–509–3934).
3. THE WETLANDS CONSULTANT WILL SPECIFY ADDITIONAL WETLANDS PLANTINGS REQUIRED TO COMPLETE THE WETLANDS BASED ON THE BASE FLOW AND GROWTH ZONES. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PA BMP MANUAL. ALL WETLANDS PLANTINGS TO BE UNDER SUPERVISION OF A WETLANDS SCIENTIST.


GRASS SEEDING ON SIDE SLOPES OF BASIN
FOREBAY
BASIN EMBANKMENT
BASIN BOTTOM
PROPOSED WETLAND SEEDING MIX – ERNST RETENTION BASIN FLOOR FOR WILDLIFE & PLANT DIVERSITY MIX

WETLANDS PLANTING

G / SM-5
NOT TO SCALE


VARIES
PRINCIPAL SPILLWAY RISER
CORE HEIGHT
FILTER DIAPHRAGM*
KEYWAY
ENDWALL
OUTLET PROTECTION
OUTLET BARREL
CONCRETE CRADLE
Lfd
*WHERE PROPOSED
ANTI–SEEP COLLARS
CORE WIDTH
EMBANKMENT ALONG PRINCIPAL SPILLWAY
8 IN. MIN.
8 IN. MIN.
COMPACTED FILL
COMPACTED FILL
RCP OR CMP
8 IN. MIN.
VIRGIN GROUND
CONCRETE POURED IN PLACE NEAT TO GROUND, 3000 PSI (MIN.)
CROSS–SECTION AT OUTLET BARREL

NOTES:

A CONCRETE CRADLE MAY BE USED IN CONJUNCTION WITH ANTI–SEEP COLLARS AND/OR FILTER DIAPHRAGM.
ANTI–SEEP COLLAR NUMBER, SIZE AND SPACING SHALL BE AS SHOWN ELSEWHERE IN PLAN.
FILTER DIAPHRAGM LOCATION (Lfd) SHALL BE AS SHOWN IN FIGURE 7.8 OF THE PA DEP EROSION CONTROL MANUAL.

CONCRETE CRADLE FOR BASIN OR TRAP OUTLET BARREL #7-17

H / SM-5
NOT TO SCALE

Sheet Number:
25 of 40
Project Number:
15–100–34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3
Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

POST CONSTRUCTION STORMWATER MANAGEMENT BASIN DETAILS

Project Manager:
DAVID B. KEGERIZE PE
Drafting:
D TURNER
Project Engineer:
G. MITCHELL KING PE, PLS
Checked by:
–
Project Surveyor:
MATTHEW D. DENNIS PE, PLS
Scale:
1"=50'
0 25 50 100 150

Seal:
G. MITCHELL KING
ENGINEER
No. PE36683-E
1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
SM–5

1/21/2025 12:52 PM L:\15–100–34\SHEETS\PRELIMINARY\25 SM–05.DWG

PRELIMINARY / FINAL

ARM RECOMMENDATIONS:

7.1 Sinkhole Prevention

An effective means of minimizing post-construction sinkhole activity is to include facilities such that stormwater is collected and transported away from critical areas (e.g., structures, roadways, and driveway areas) as quickly and completely as possible. Sinkholes can be discouraged by taking the following precautions.

- Choose the most watertight piping available for all water-bearing conduits. Storm and sanitary sewer lines should, at a minimum, incorporate gasketed joints. If gasketed concrete pipe is used, it is recommended that pipe joints also be externally wrapped to help minimize leakage through the often-ineffective gaskets.
- Construction scheduling should provide for closing of excavations such as for foundations and utilities as soon as possible after exposure.
- Plastic tarps, diversion swales, berms and other measures should be utilized as appropriate to minimize surface water exposure with trenches or excavations that are opened during rainy weather.
- To the greatest extent practical, avoid running sewer lines beneath buildings or other critical facilities. Utilities and sewer lines that run parallel to building walls should be at least 10 feet away from the outboard edge of the foundation but preferably 20 feet or more away.
- Outlet roof drains directly into collection leaders or storm sewers.
- Interrupt granular pipe bedding layers at maximum intervals of 100 feet with trench plugs, earth dams, or similar measures to prevent water flow through the bedding. Trench plugs should be constructed with compacted clay or with synthetic materials designed for this purpose. Specification and use of a product such as AquaBlok®(a composite bentonite aggregate material that will form a trench plug when used as backfill), or equivalent, would be ideal for this purpose.
- Minimize the extent of landscaped areas immediately adjacent to buildings or other critical facilities in favor of impervious surfaces.
- Provide positive overland drainage away from buildings and other critical facilities.
- Carefully seal all pavement joints, including joints where paving meets curb lines, structure walls, catch basins, etc.
- Do not install utility lines or free draining material along foundation lines.
- Excavate and repair any sinkholes disclosed during construction.
- Contractors should not let rainwater run through or accumulate in trenches and around new foundations or utilities. Pumps should be used to promptly remove any water that does accumulate. Temporary dikes and diversion channels should be installed to divert surface water away from low areas that are not intended to collect water. When practical, trenches that are not yet backfilled, should be temporarily covered with tarps to prevent the accumulation of surface water in low areas.
- Backfill around structures and over utilities and sewer laterals should be placed promptly and should not be permitted to remain open for an extended time.

Implementation of the above measures should significantly reduce the amount of sinkhole activity during construction and over the life of the proposed facilities.

7.2 Sinkhole Treatments

Sinkholes that are not promptly addressed with appropriate remedial measures can increase in size and extent and may lead to significant additional mitigation costs in the future. Existing sinkholes, and sinkholes that occur during construction or in the future, should be promptly addressed on a case-by-case basis under the guidance of a Professional Geologist or Engineer registered in the Commonwealth of Pennsylvania and experienced with sinkhole treatments. The attending professional may consider the use of the techniques previously presented in Section 5.0 of this report. ARM will remain available to provide professional guidance regarding sinkhole treatments upon request.

7.3 Rock Removal

Based on the test probe results, ARM's current understanding of the proposed site development and grading, and ARM's previous experience with the carbonate geology in the area, it is possible that isolated conflicts with bedrock pinnacles will be encountered in excavations. Because rock removal and earthwork disturbances can lead to increased sinkhole susceptibility, care should be taken to minimize rock disturbance to the extent practical where rock is encountered. Where rock removal is required, it should be conducted with mechanical means instead of blasting where practical, as blasting can increase sinkhole development risks and damage adjacent facilities. If blasting must be conducted, the work should be properly controlled and monitored to minimize over-blasting and the associated increased sinkhole development risks, and to prevent damage to adjacent facilities and features. If rock removal is performed below storm water management features, rock should be removed to a depth of at least two feet below the final design grades and stormwater management subgrades using mechanical rock removal methods (e.g., hydraulic ram or ripper). Broken and loose rock should be removed from the base of all excavations prior to backfilling. Where highly fractured or open-jointed rock is encountered in excavations, a geotextile filter fabric and/or graded stone filter should be placed, as appropriate and as directed by the attending professional, into the excavation prior to backfilling to prevent future soil loss into any such openings. ARM or other qualified Geotechnical Engineer should verify the exposed subgrade following rock removal activities and advise contractors concerning treatments as necessary prior to the placement of backfill.

7.4 Stormwater Management

Considerations and recommendations for the design and construction of stormwater management facilities at this site are as follows:

- Based on the presence of karst geology and the potential for sinkhole development at the site, stormwater management systems should be constructed using appropriate sinkhole mitigation and/or stabilization methods to minimize the potential for sinkhole development during the lifetime of the project. Sinkhole mitigation measures include such measures as: 1) limiting the head of water above the base of any stormwater management system and/or using a lowpermeability liner below stormwater management facilities; 2) limiting the stormwater loading ratio to the extent practical consistent with the recommendations of the PA BMP Manual; 3) distributing the proposed stormwater infiltration facilities strategically around the site to limit concentrated flows and to diminish potential property damage and/or injury risks due to inherent sinkhole development risks; and 4) properly reviewing, repairing and/or stabilizing observed subsurface voids or impending sinkhole conditions prior to stormwater management facility construction and as soon as possible following the identification of potential or active sinkholes in the future.

- Based on the observed site conditions, including risks of sinkhole development noted earlier, caution and appropriate vetting should be incorporated while designing and constructing stormwater facilities at the site. Shallow rain gardens, clay-lined systems where appropriate, and water-quality protections based on best management practices will generally help to minimize the elevated risks of sinkhole development. Appropriate system redundancy should be considered and implemented in the design of stormwater management facilities, and passive bypass(es) should be incorporated as and where appropriate to prevent surcharging within the system.
- Underground conveyance piping should be leak resistant. All joints should be adequately sealed or gasketed, and pipes should be properly bedded and placed to prevent leakage. Corrugated metal pipe is not recommended because of the difficulty in effectively sealing the joints. Other pipe materials such as High-Density Polyethylene (HDPE) and/or PVC pipe with water-tight connections is recommended where appropriate. Additionally, pipe bedding should be designed and constructed to minimize the potential for the accumulation of water and concentrated infiltration. Where utility and sanitary or storm sewer pipe backfill have the potential to convey significant amounts of water (e.g., along stone bedding around stormwater and sewer lines), trench plugs constructed with AquaBlok®composite bentonite aggregate (or equivalent such as well-compacted clay) should be placed at 100-foot intervals (maximum) across any open-graded pipe bedding to minimize the preferential flow and concentration of water along the bedding of such utilities. Additional applications of trench plugs around manholes and at other junctures, as appropriate, should be considered by the designer. The designer should strategically select locations of such trench plugs to segregate critical infrastructure at the site (e.g., lined subsurface stormwater detention facilities, etc.) from utility trenches, as appropriate.
- Stormwater management subgrades (as well as subgrades for building foundations, utilities, and pavements) should be evaluated, reviewed, and probed by an ARM or other Professional Geologist or Geotechnical Engineer experienced in identification and mitigation of common issues related to karst geology, historic fill placement and perched water conditions prior to the backfilling of, or construction above, any such subgrades.

7.5 General Recommendaions

- The Owner and project stakeholders should be informed that significant unscheduled excavations to address karst features may be necessary to facilitate proper surface and subsurface preparations in accordance with the recommendations of the attending Professional Geologist or Geotechnical Engineer.
- As applicable, the recommendations presented herein should be reflected in the specifications, drawings, plans, contracts and/or other documents issued for site construction.
- The designer should carefully review the prevailing Township and County codes and ordinances and State guidance (e.g., Pennsylvania Stormwater BMP Manual) to ensure that stormwater management facilities comply with the applicable provisions of such documents.
- Qualified geotechnical engineering observations and tests should be conducted on a full- time basis during all phases of the site preparation, utility and sewer line construction, foundation construction, pavement construction and stormwater facility construction to ensure its proper execution. All structure foundation subgrades should be approved before pouring foundations, and each lift of fill and backfill should be observed and tested on a layer-by-layer basis to ensure the recommended degree of compaction is obtained and that the materials are placed within the proper moisture content range. Overexcavation and backfill of localized soft material zones should be as recommended by Quality Control and Quality Assurance Representatives. ARM can provide personnel to perform quality control and quality assurance reviews and testing services upon request.

SEQUENCE OF CONSTRUCTION FOR PROJECT

PRE-CONSTRUCTION STABILIZATION OF THE SITE

All disturbed areas from agricultural activities must be stabilized completely in the previous growing season prior to the start of grading by seeding with small grain or permanent vegetative cover as specified on these plans.

The project is anticipated to be constructed in multiple phases. Separate Erosion & Sediment Control sequencing are provided for construction of each phase. Construction shall be conducted in a manner to minimize earth disturbance at any given time. In accordance with the recommendations by the United States Fish and Wildlife Service, no tree removal shall be conducted from May 15 to August 15.

All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed and immediately stabilized before any following stage initiated. Clearing, grubbing and topsoil stripping shall be limited only to those areas described in each stage. Upon temporary cessation of the earth disturbance activity for four days or longer, the project site shall immediately be stabilized with the appropriate temporary stabilization. As soon as slopes, channels, ditches and other disturbed areas reach final grade, the area shall immediately be stabilized with the appropriate permanent stabilization.

Each phase stands independent of the other.

Each step marked "CSoC:" is a critical stage of construction and requires oversight by a professional engineer.

Construction of Arcona Phase 8.3 is to be sequenced in the following order:

Phase 8.3

1. As least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate Municipal Officials, the Erosion and Sedimentation Control Plan Preparer, and a representative of the Conservation District to an on-site meeting. The excavation contractor(s) shall execute an NPDES co-permittee/transferee agreement with PA DEP. The contractor shall ensure that all construction shall be done in accordance with the requirements of the NPDES permit.
2. The limit of disturbance must be field staked prior to any earth moving activities.
3. Install rock construction entrance #1 at the Eckford Park entrance. All construction equipment shall utilize the rock construction entrance for ingress and egress to the site. Maintain entrance over course of construction per detail to prevent tracking of soil/mud onto public roads.
4. Install silt filter sock as shown on the plan along the perimeter of the site. The contractor shall maintain the silt sock in working order throughout the course of construction, making inspections after each rainfall event and making any necessary repairs. In the event that any silt filter sock should fail in the course of construction, a rock filter outlet may be installed as a repair measure.
5. Inspect Sediment Basin outlet culverts, riprap pads, emergency spillway, super silt fence baffles, skimmers and rock rings by the skimmers to ensure that all E&S controls are installed as functioning as shown on Sheet ES-04. Repair and replace as needed.
6. Clear and grub the construction site. Tree removal shall not be conducted from May 15 to August 15.
7. Strip topsoil within the construction site. Stockpile in designated area(s) as shown on the plans and place silt filter sock on the down slope side of the stockpile. Immediately stabilize with temporary seeding as specified on the plan.
8. **CSoC: Excavate Basin 8.3 and construct berm. Install storm sewers from I-554 to the connection with I-300. Do not install planting soil or wetlands plantings at this time. The basin bottom grade shall be maintained at elevation 475.50.**
9. Conduct bulk earth moving operations. All runoff shall be directed to Basin 8.3, which reduces runoff rate but does not control sedimentation.
10. Install storm sewers beginning at the system endwall. Install rip-rap aprons at EW-500 and EW-552. All excavated utility trench must be backfilled by the end of each day.
11. Install the water main. All excavated utility trench must be backfilled by the end of each day.
12. Install the sanitary sewer. All excavated utility trench must be backfilled by the end of each day.
13. Final grade all streets subgrade and shoulder areas for Eckford Park, Overlook Drive, James Street, Leroy Drive, and Ridgeview Avenue.
14. Install curbing along all of Eckford Park, Overlook Drive, James Street, Leroy Drive, and Ridgeview Avenue.
15. Install stone subbase as soon as possible after completing curb. Pave Eckford Park, Overlook Drive, James Street, Leroy Drive, and Ridgeview Avenue with base and binder courses.
16. Begin construction of the homes after stone base on streets is in place. See Project Staging for Individual Lots.
17. Replace topsoil, seed and mulch to stabilize all disturbed areas as possible after each lot or block of homes are completed.
18. Pave Eckford Park, Overlook Drive, James Street, Leroy Drive, and Ridgeview Avenue with wearing course when construction of dwellings is completed.
19. **CSoC: Complete excavation of Basin 8.3 to subgrade of soil media (elev. 474.50) and install 12" planting soil media and wetland plantings. Install permanent seeding to stabilize the surrounding area immediately.**
20. **CSoC: Complete infiltration testing of Basin 8.3. The observed rates must be within 2 and 8 in/hr.**
21. Contact the Cumberland County Conservation District for site inspection prior to removal of any sediment basin.
22. Once all lots within the watershed of Sediment Basin #1 have been completely stabilized, and the Conservation District has approved removal of the sediment basin, remove the sediment basin and stabilize immediately with permanent seeding.
23. **CSoC: Once the Conservation District has approved removal of Sediment Basin #1, convert to the permanent Detention Basin #1. Check the permanent detention basin for stability, size, grade and proper outlet structure after conversion is completed. See Project Staging – Converting Sediment Basin to Detention Basin.**
24. Check site for erosion and repair any damaged areas. All portions of the site shall be stabilized.
25. Remove perimeter compost filter sock, spread compost mulch around any disturbed areas and remove any other sediment controls once all disturbed areas are completely stabilized.
26. A final critical stage inspection shall be performed by the site's engineer to verify all previously installed PCSM BMPs are still functioning as designed and not impacted by construction activities.
27. Upon completion of the project a completed Notice of Termination (N.O.T.) shall be submitted to the department and/or Conservation District Staff so a final inspection can be performed to ensure stabilization and verify adequate installation and function of BMPs.

*** CSoC: Critical Stage of Construction**

Project Staging – Individual Lots

Each lot will be staged in the following order:

1. Install stabilized construction entrance.
2. Install silt filter sock as shown on plan.
3. Rough grade lot and stabilize immediately with temporary seeding.
4. Excavate for dwelling foundation. Place excess soil on designated soil stockpile location. Install silt filter sock below the stockpile.
5. Construct dwelling.
6. Connect utilities.
7. Install sidewalk along frontage of lot.
8. Pave driveway.
9. Final grade lot and stabilize immediately with permanent stabilization.
10. Remove silt filter sock once all disturbed areas are stabilized.

Project Staging – Converting Sediment to Detention Basin

Once the Conservation District has approved removal of the Sediment Basin, convert to the Permanent Detention Basin as follows:

1. Stabilize the emergency spillway with geotextile and rip-rap immediately. Stabilize any other disturbed areas immediately with permanent seeding.
2. Remove the temporary riser pipe. Dispose of properly or store for reuse.
3. Remove baffles and cleanout stakes from the basin bottom. Dispose of properly or store for reuse.
4. Remove temporary floating skimmers. Dispose of properly or store for reuse. Remove any grout used to seal skimmers into inlets.
5. Remove any sediment from the basin outlet pipes.
6. Remove stainless steel orifice plate used to attach the floating skimmers to the inlets. Stainless steel orifice plates were used to cover the 24"wide x 12"high rectangular orifices in the basin outlet structures required for the permanent basin configuration.
7. Bring grade up the permanent detention basin elevation and stabilize immediately with permanent seeding and mulch.
8. Install stone filter ring around the basin outlet structure to protect from sedimentation. Once the basin bottom is completely stabilized, remove stone filter ring and stabilize disturbed area immediately with permanent seeding and mulch.

Project Staging – Water Main Installation

Install water main by means of directional drilling. Drill pads shall have appropriate erosion and sedimentation controls and be stabilized upon cessation of activity.

Sheet Number:
26 of 40

Project Number:
15-100-34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.2
Lower Allen Township - Cumberland County, PA
CHARTER Homes & Neighborhoods

POST CONSTRUCTION STORMWATER MANAGEMENT NOTES

Project Manager:
DAVID B. KEGERIZE PE

Drafting:
D TURNER

Project Engineer:
G. MITCHELL KING PE, PLS

Checked by:
–

Project Surveyor:
MATTHEW D. DENNIS PE, PLS

Scale:
AS NOTES

Seal:
G. MITCHELL KING

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Civil Engineers & Land Planners
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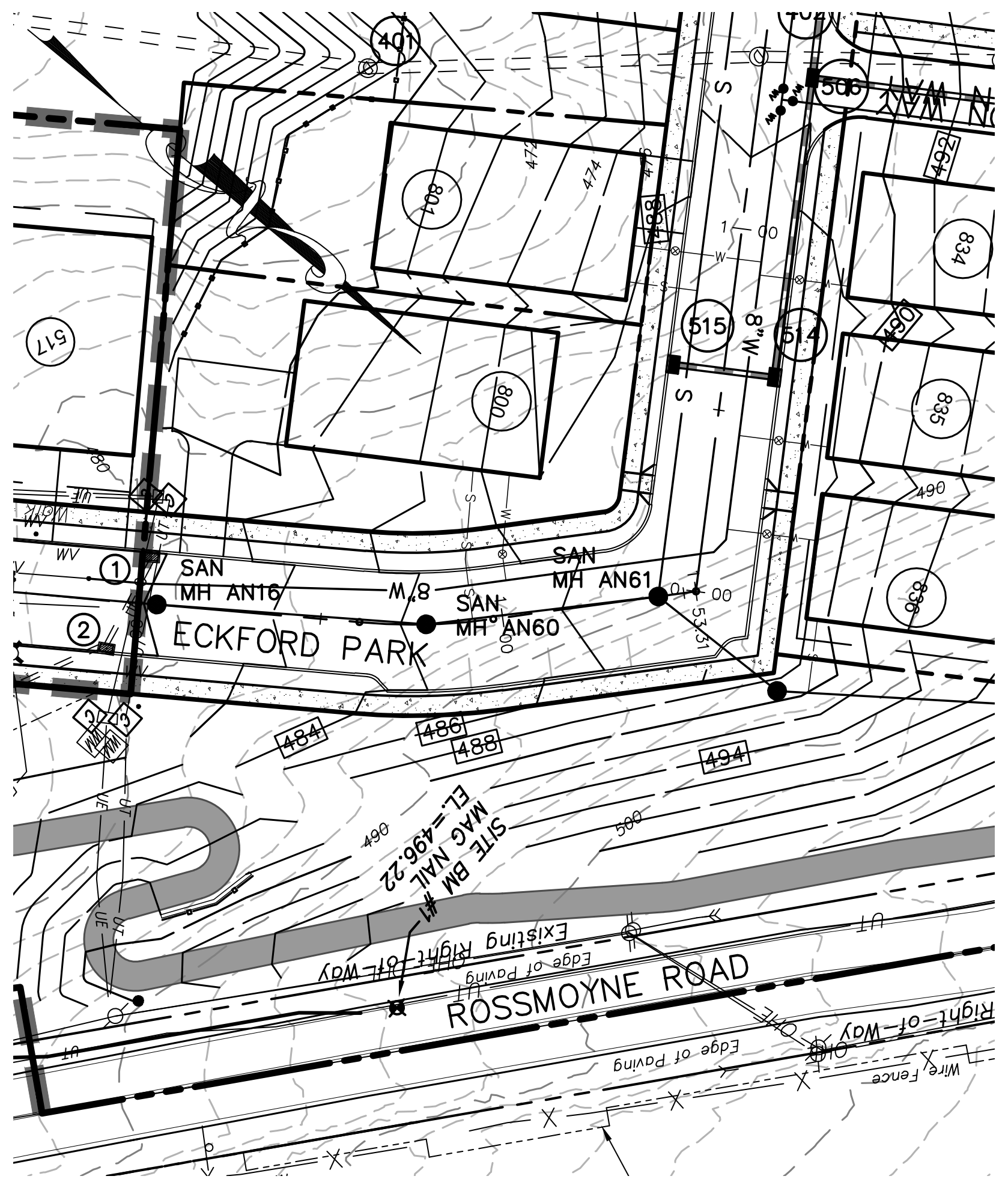
DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
SM-6

1/21/2025 12:49 PM L:\15-100-34\SHEETS\PRELIMINARY\26 SM-06.DWG

PRELIMINARY / FINAL


ECKFORD PARK
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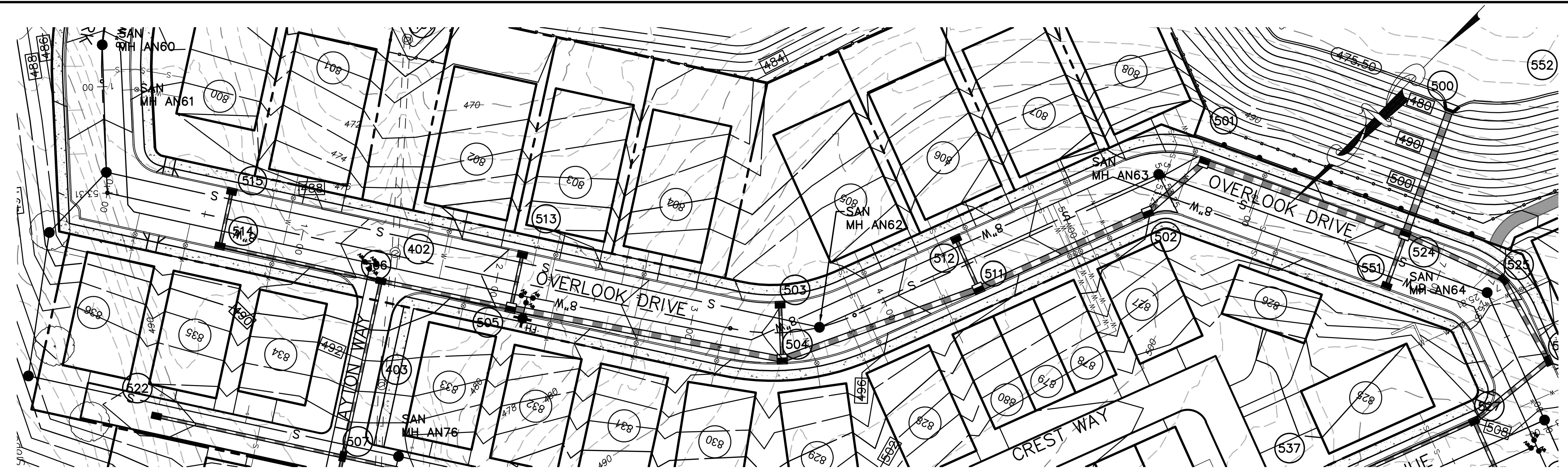
SAN MH AN60
SAN MH AN61
ROSSMOYNE ROAD
Existing Right-of-Way
Edge of Paving
Right-of-Way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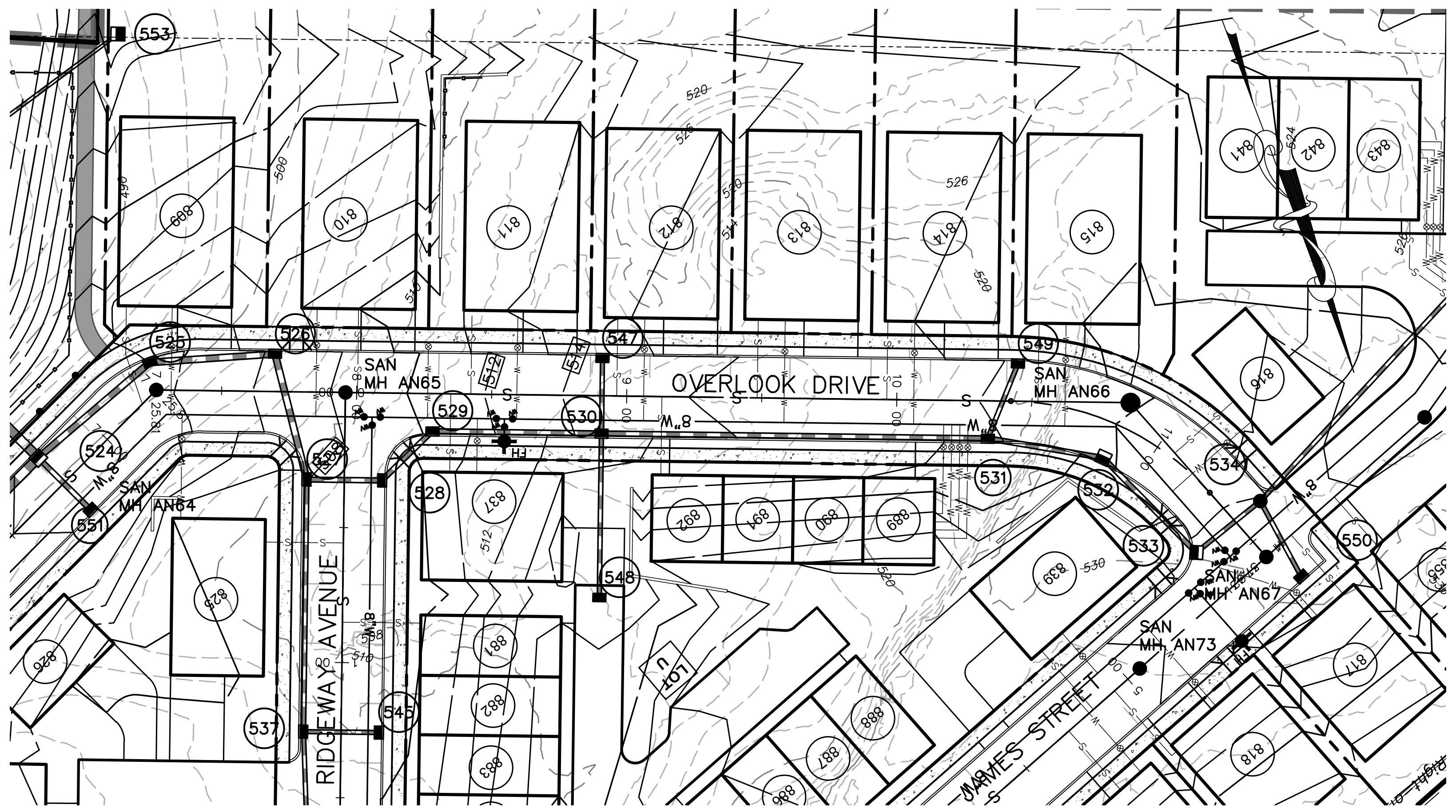
SAN MH AN61
SAN MH AN62
SAN MH AN63
SAN MH AN64
SAN MH AN76
OVERLOOK DRIVE
CREST WAY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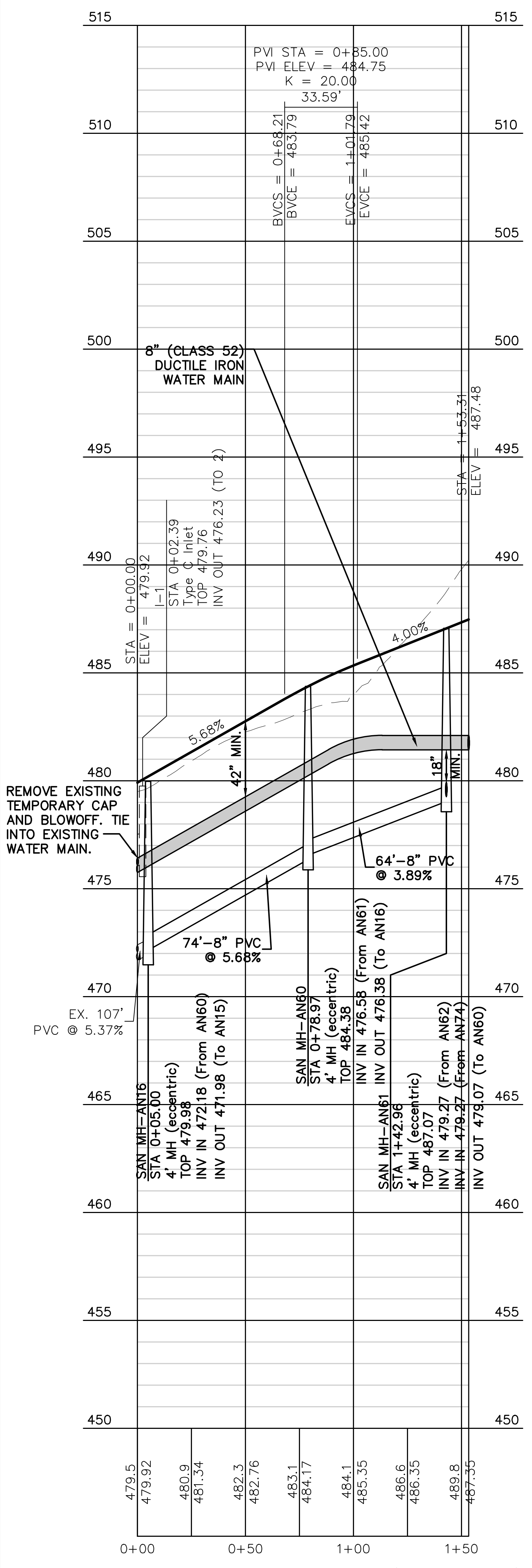
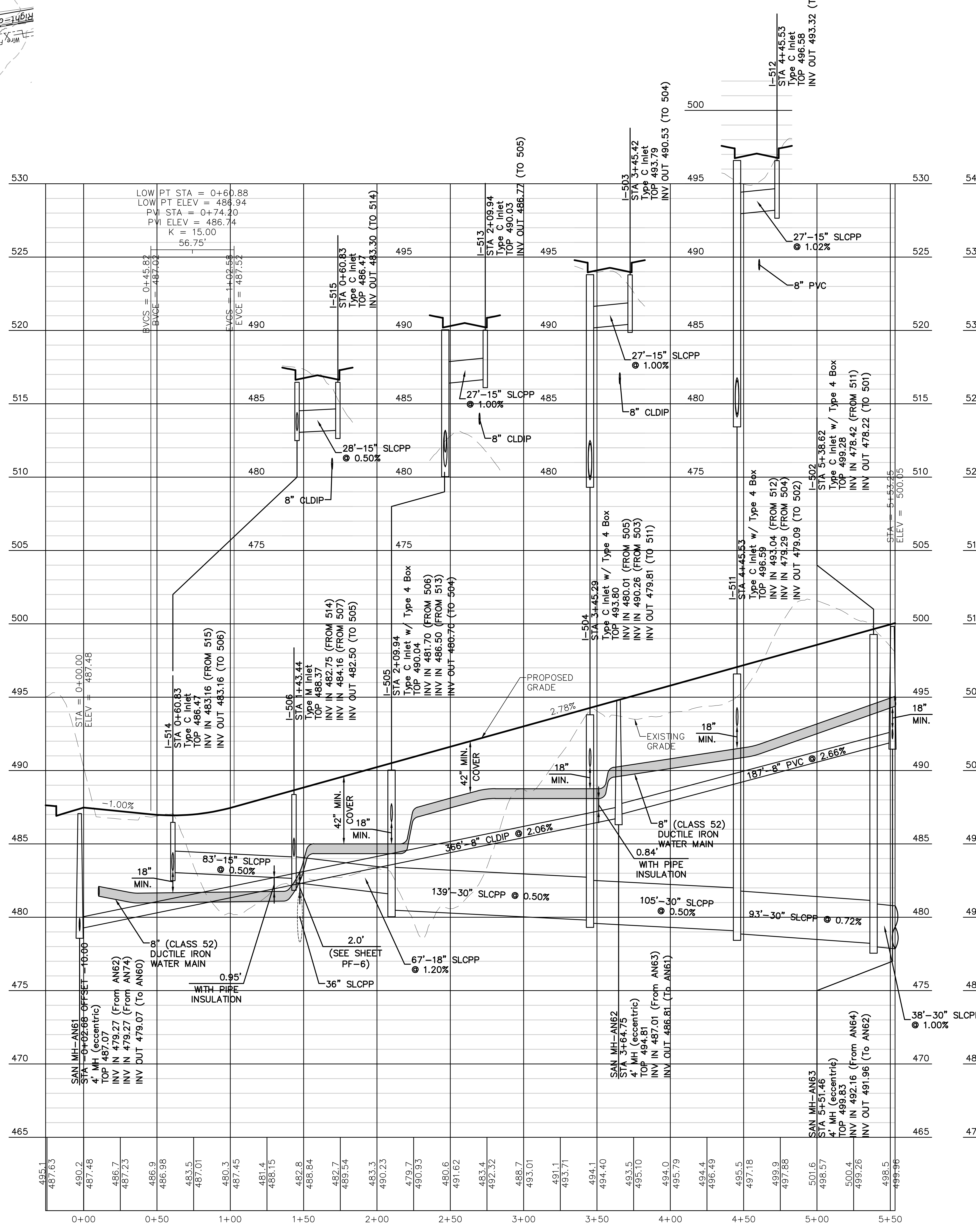
SAN MH AN67
SAN MH AN73
OVERLOOK DRIVE
RIDGEWAY AVENUE
JAMES STREET


PVI STA = 0+85.00
PVI ELEV = 484.75
K = 20.00
33.59'
8" (CLASS 52) DUCTILE IRON WATER MAIN
REMOVE EXISTING TEMPORARY CAP AND BLOWOFF. TIE INTO EXISTING WATER MAIN.
5.68%
4.00%
42" MIN.
18" MIN.
64'-8" PVC @ 3.89%
74'-8" PVC @ 5.68%
EX. 107' PVC @ 5.37%
SAN MH-AN16
SAN MH-AN60
SAN MH-AN61
I-1 STA 0+02.39 Type C Inlet TOP 479.76 INV OUT 476.23 (TO 2)

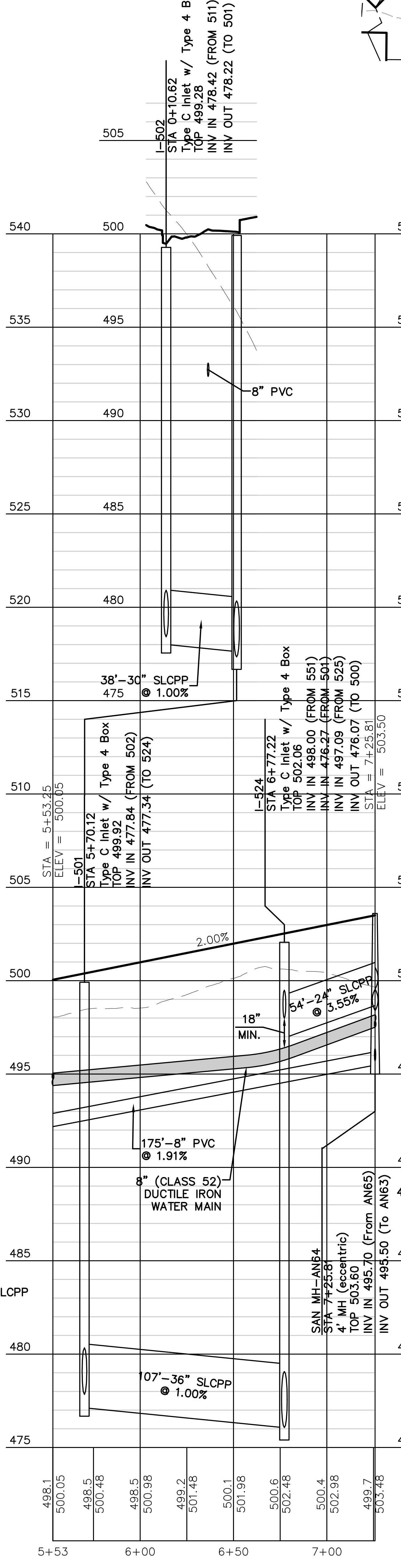
PROFILE: ECKFORD PARK (EXTENDED)

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


LOW PT STA = 0+60.88
LOW PT ELEV = 486.94
PVI STA = 0+74.20
PVI ELEV = 486.74
K = 15.00
56.75'
PROPOSED GRADE
EXISTING GRADE
-1.00%
2.78%
42" MIN. COVER
18" MIN.
83'-15" SLCPP @ 0.50%
28'-15" SLCPP @ 0.50%
27'-15" SLCPP @ 1.00%
27'-15" SLCPP @ 1.02%
139'-30" SLCPP @ 0.50%
105'-30" SLCPP @ 0.50%
93'-30" SLCPP @ 0.72%
38'-30" SLCPP @ 1.00%
67'-18" SLCPP @ 1.20%
366'-8" CLDIP @ 2.06%
187'-8" PVC @ 2.66%
8" (CLASS 52) DUCTILE IRON WATER MAIN
WITH PIPE INSULATION
2.0' (SEE SHEET PF-6)
36" SLCPP
8" CLDIP
8" PVC
SAN MH-AN61
SAN MH-AN62
SAN MH-AN63
I-514
I-515
I-505
I-506
I-513
I-504
I-503
I-511
I-512
I-502

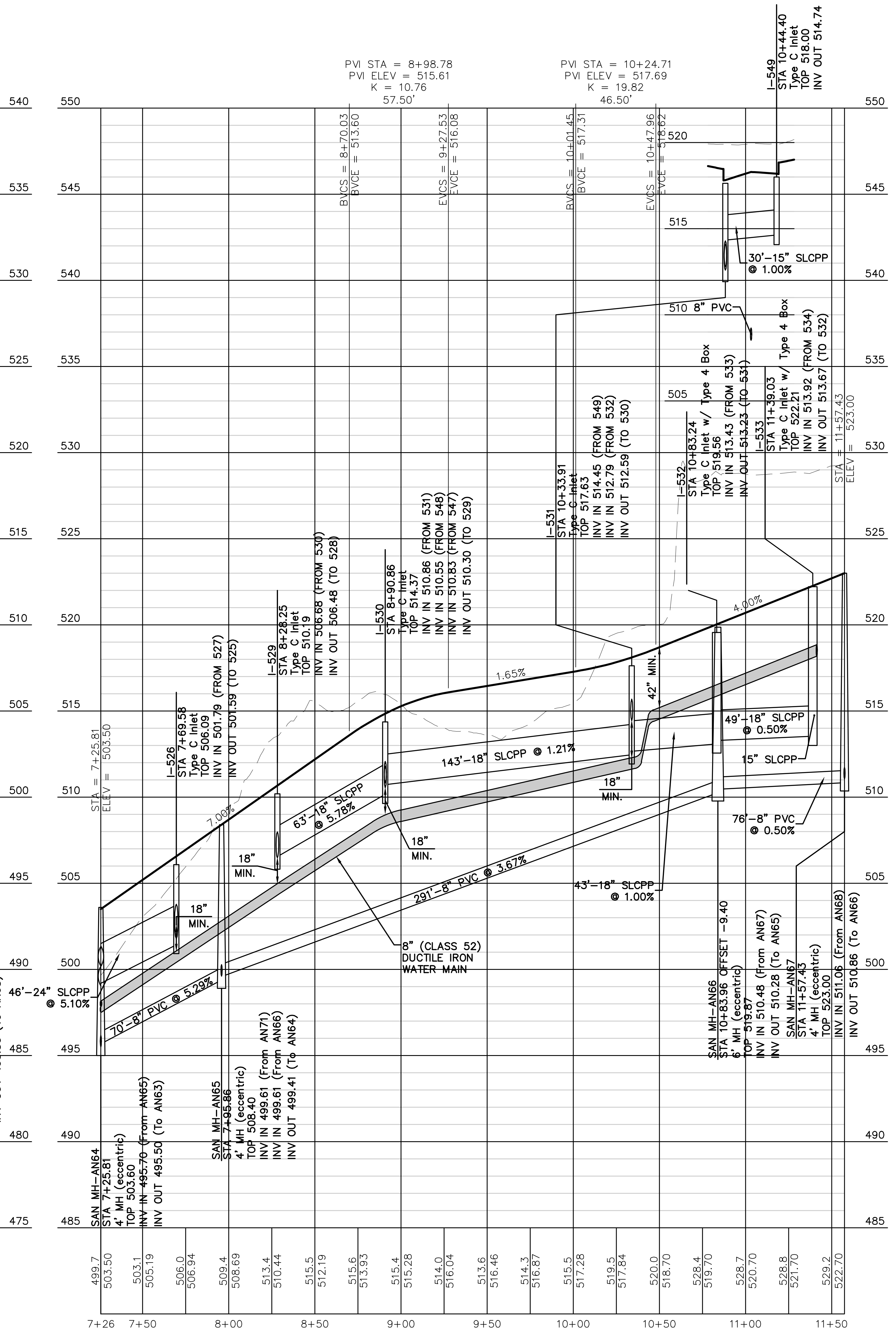
PROFILE: OVERLOOK DRIVE STA. 0+00 TO 5+53.25

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


2.00%
38'-30" SLCPP @ 1.00%
54'-24" SLCPP @ 3.55%
107'-36" SLCPP @ 1.00%
175'-8" PVC @ 1.91%
8" (CLASS 52) DUCTILE IRON WATER MAIN
8" PVC
18" MIN.
SAN MH-AN64
I-501
I-502
I-524

PROFILE: OVERLOOK DRIVE STA. 5+53.25 TO 7+25.81

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


PVI STA = 8+98.78
PVI ELEV = 515.61
K = 10.76
57.50'
PVI STA = 10+24.71
PVI ELEV = 517.69
K = 19.82
46.50'
7.00%
1.65%
4.00%
46'-24" SLCPP @ 5.10%
63'-18" SLCPP @ 5.78%
143'-18" SLCPP @ 1.21%
43'-18" SLCPP @ 1.00%
49'-18" SLCPP @ 0.50%
30'-15" SLCPP @ 1.00%
15" SLCPP
70'-8" PVC @ 5.29%
291'-8" PVC @ 3.67%
76'-8" PVC @ 0.50%
8" (CLASS 52) DUCTILE IRON WATER MAIN
42" MIN.
18" MIN.
SAN MH-AN64
SAN MH-AN65
SAN MH-AN66
SAN MH-AN67
I-526
I-529
I-530
I-531
I-532
I-533
I-549

PROFILE: OVERLOOK DRIVE STA. 7+25.81 TO END

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'

Sheet Number:
27 of 40

Project Number:
15–100–34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

PLAN & PROFILE – ECKFORD PARK & OVERLOOK DRIVE

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER	
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –	
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: 1"=50'	0 25 50 100 150

Seal:
G. MITCHELL KING
ENGINEER
No. PE36683-E
1/7/25

TOWNE SQUARE ENGINEERING

313 W. Liberty St.,
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Phone: (717) 283-4538

Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
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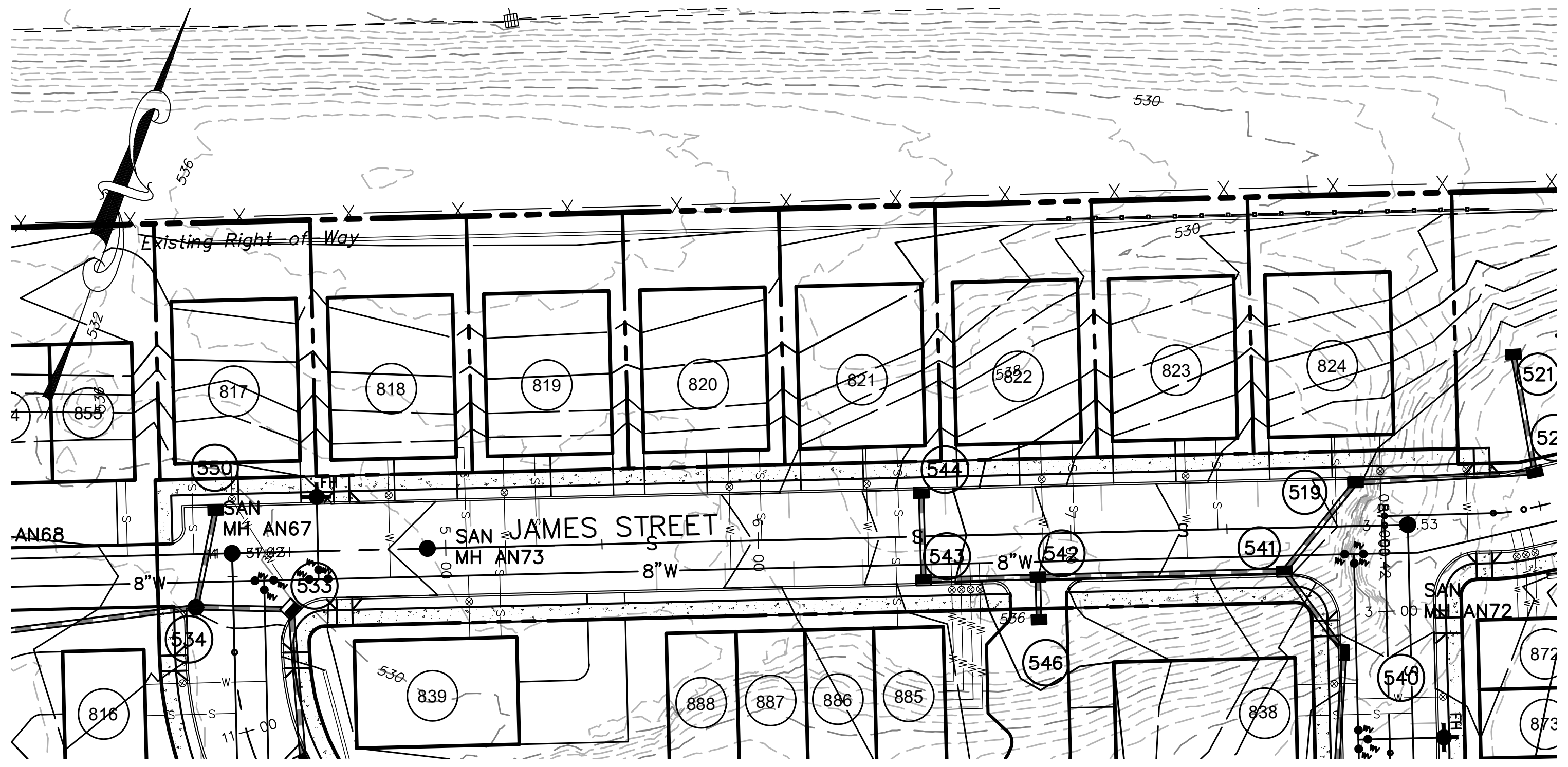
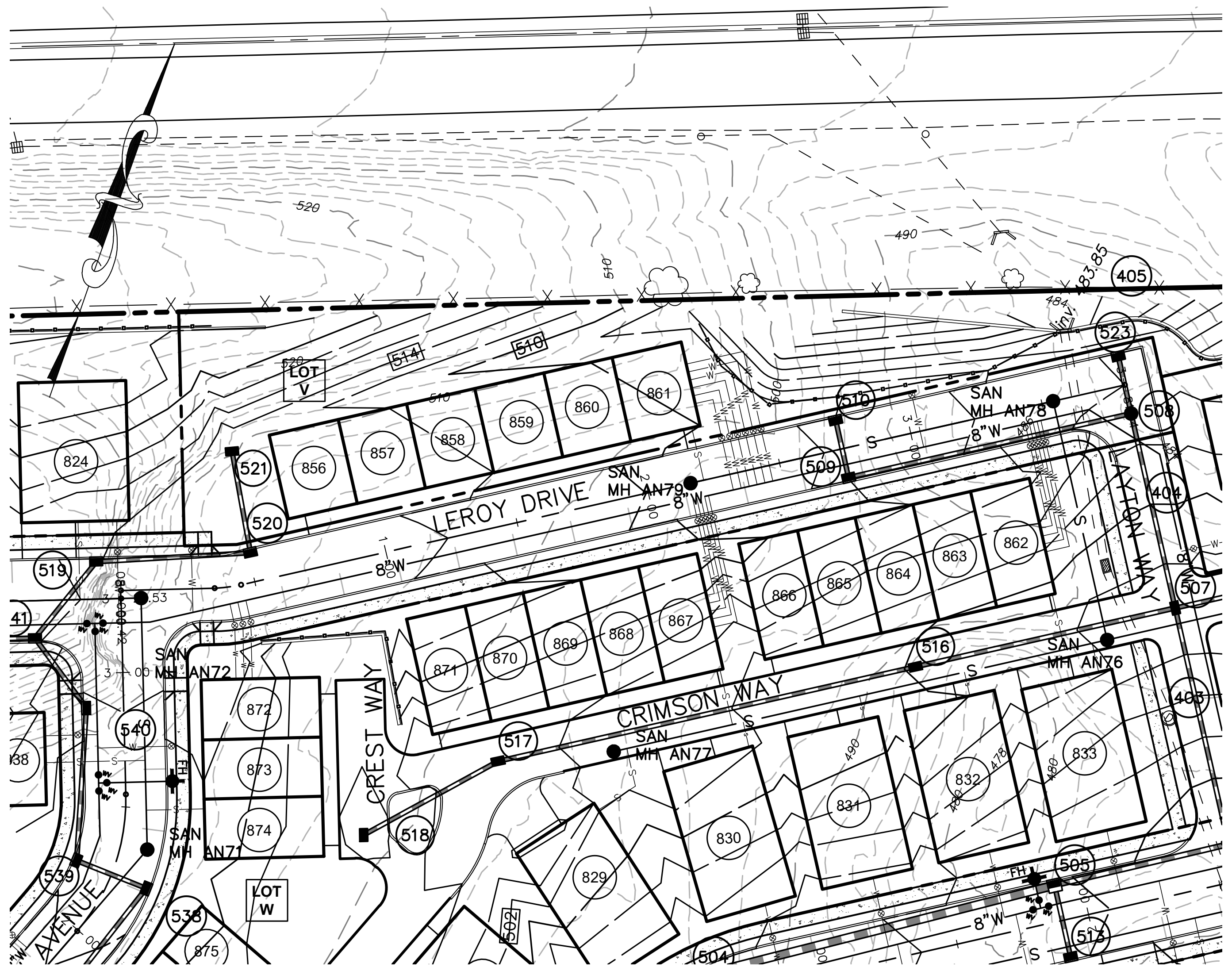
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
PF–1

1/21/2025 12:50 PM L:\15–100–34\SHEETS\PRELIMINARY\27 PF–01.DWG

PRELIMINARY / FINAL


Existing Right-of-Way
JAMES STREET
SAN MH AN67
SAN MH AN73
SAN MH AN72
8"W
817
818
819
820
821
822
823
824
839
888
887
886
885
838


LEROY DRIVE
CRIMSON WAY
CREST WAY
SAN MH AN78
SAN MH AN79
SAN MH AN77
SAN MH AN76
SAN MH AN72
SAN MH AN71
8"W
856
857
858
859
860
861
862
863
864
865
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869
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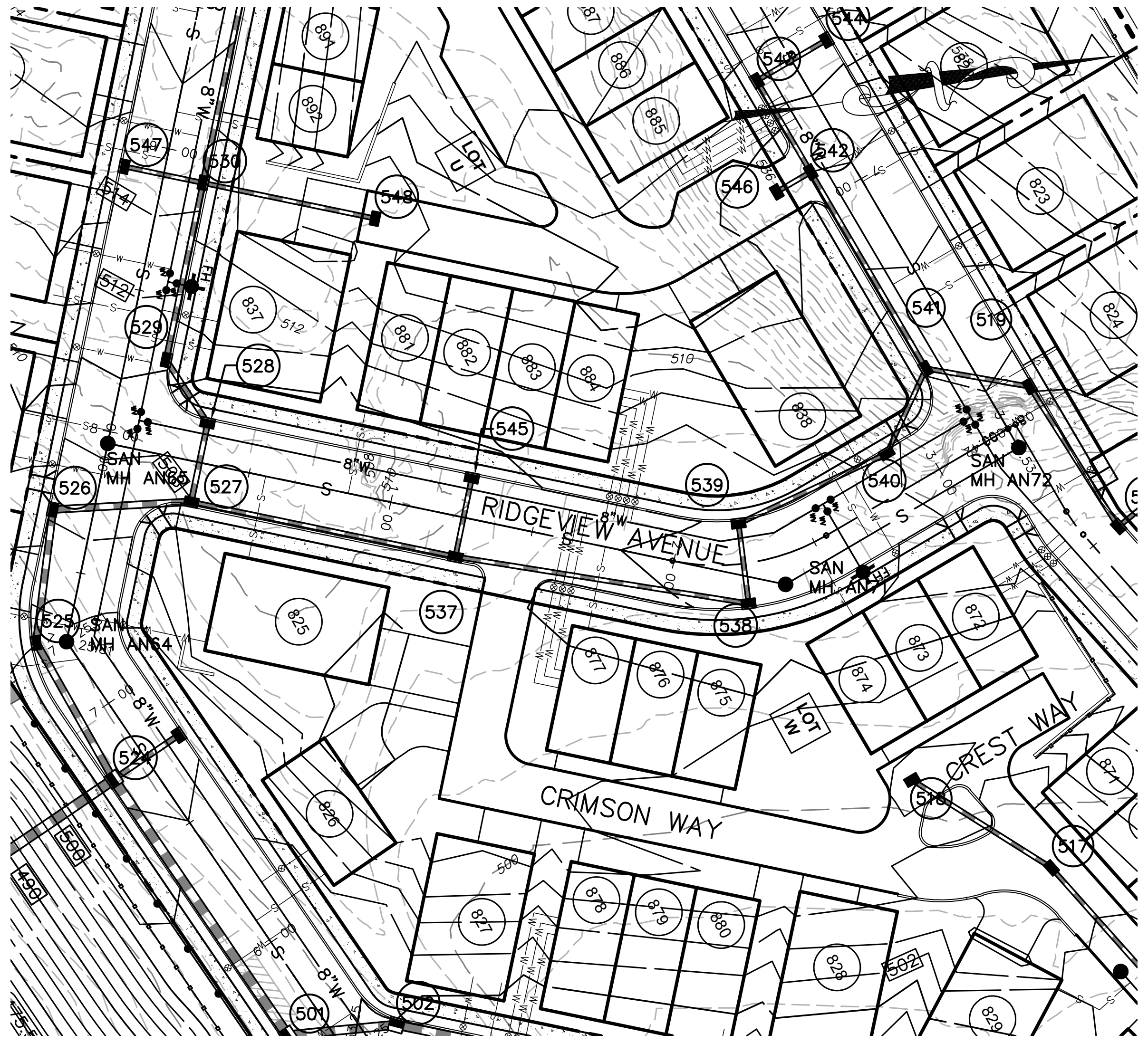
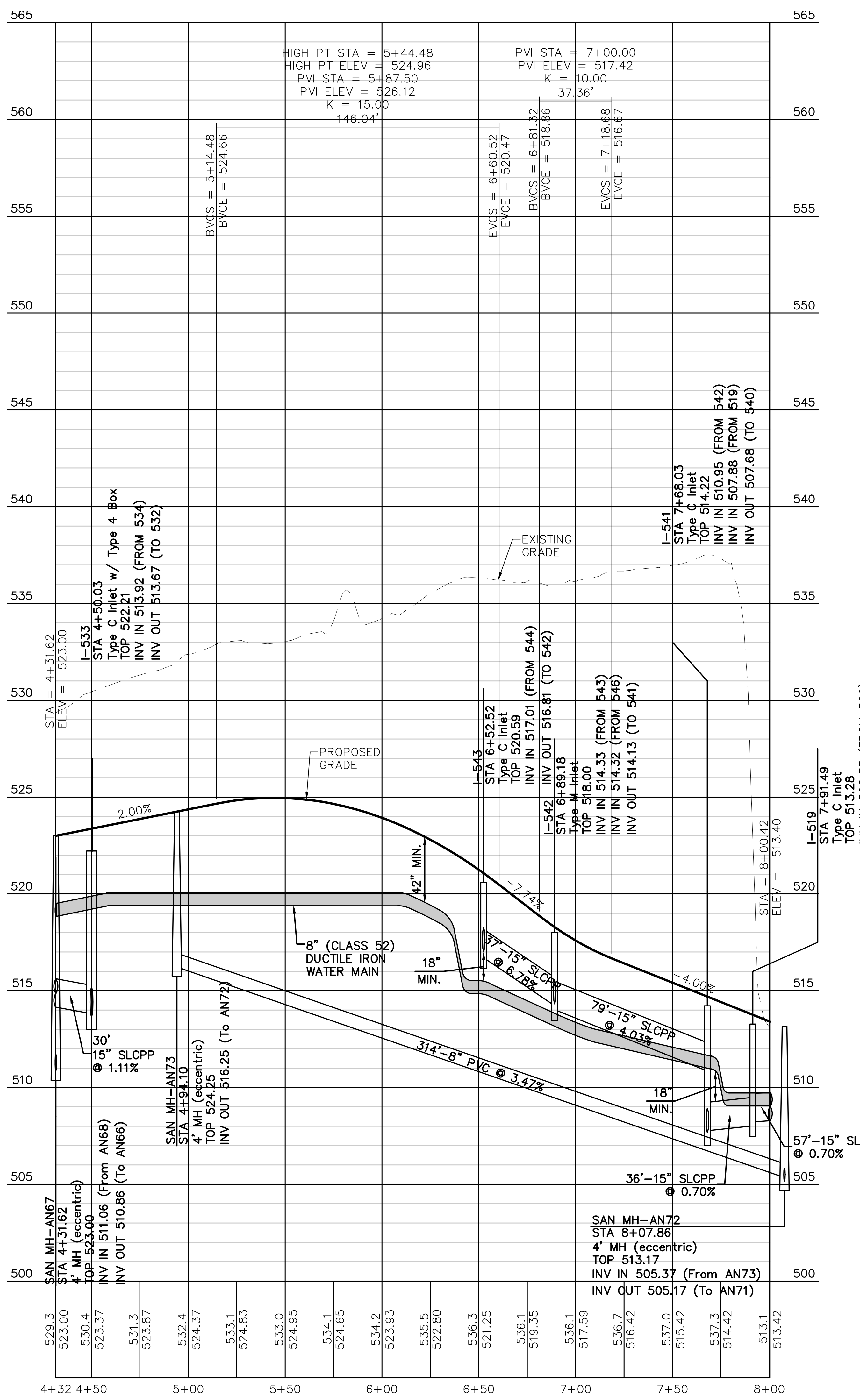
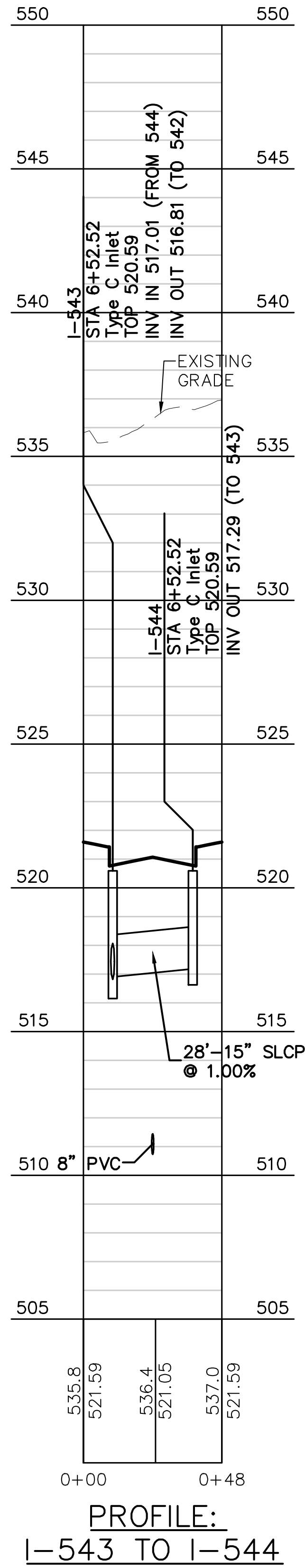
871
872
873
874
829
830
831
832
833
LOT V
LOT W

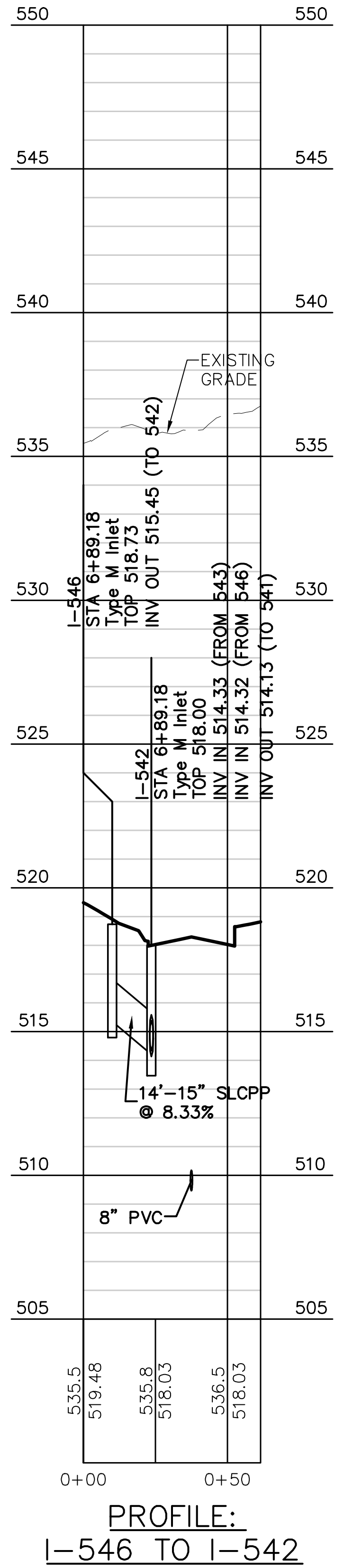

RIDGEVIEW AVENUE
CRIMSON WAY
CREST WAY
SAN MH AN65
SAN MH AN64
SAN MH AN72
LOT V
LOT W


HIGH PT STA = 5+44.48
HIGH PT ELEV = 524.96
PVI STA = 5+87.50
PVI ELEV = 526.12
K = 15.00
146.04'
PVI STA = 7+00.00
PVI ELEV = 517.42
K = 10.00
37.36'
PROPOSED GRADE
EXISTING GRADE
2.00%
8" (CLASS 52) DUCTILE IRON WATER MAIN
314'-8" PVC @ 3.47%
30' 15" SLCPP @ 1.11%
79'-15" SLCPP @ 4.03%
36'-15" SLCPP @ 0.70%
57'-15" SLCPP @ 0.70%
SAN MH-AN72 STA 8+07.86 4' MH (eccentric) TOP 513.17 INV IN 505.37 (From AN73) INV OUT 505.17 (To AN71)

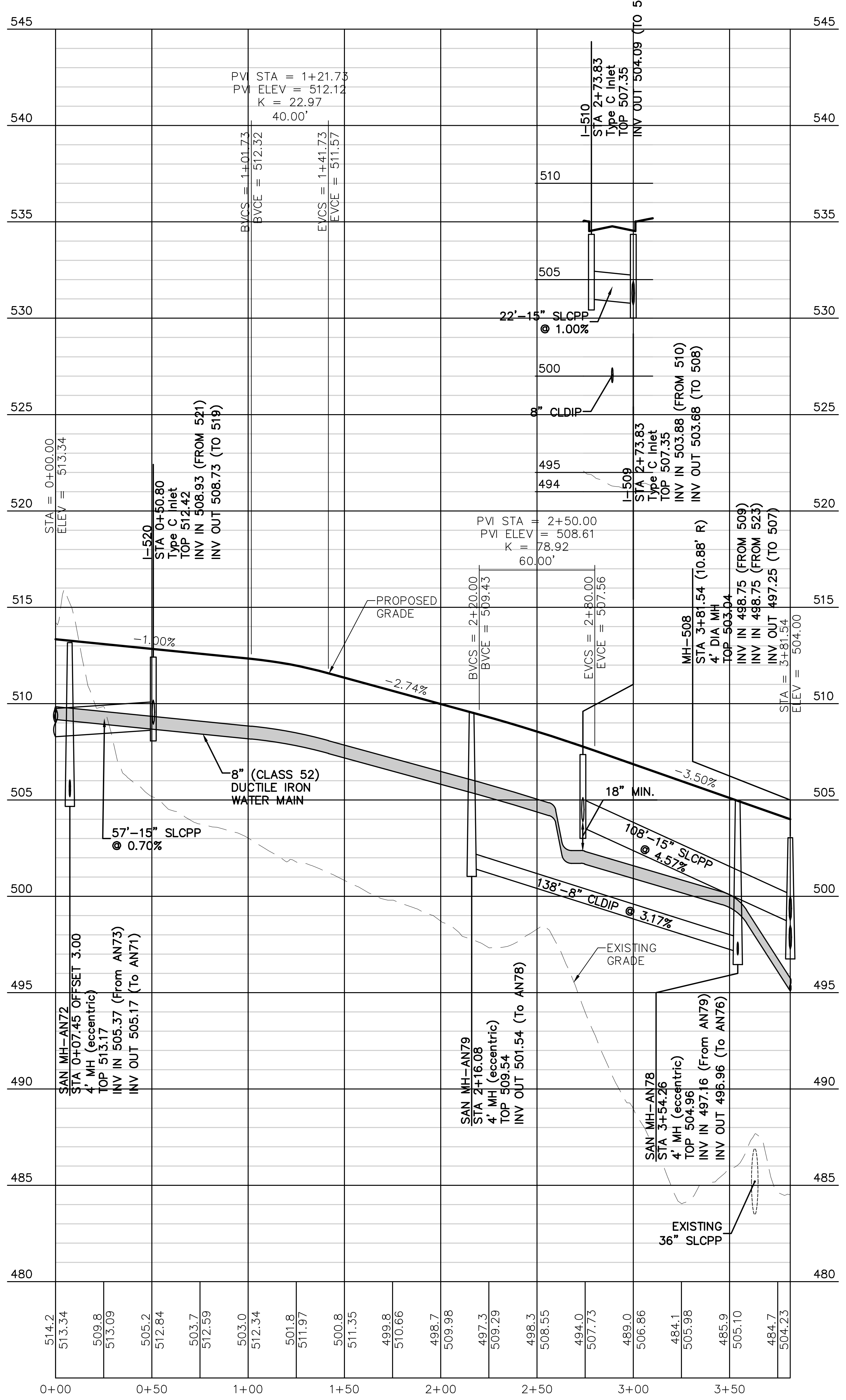
PROFILE: JAMES STREET
SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


I-543 STA 6+52.52 Type C Inlet TOP 520.59 INV IN 517.01 (FROM 544) INV OUT 516.81 (TO 542)
I-544 STA 6+52.52 Type C Inlet TOP 520.59 INV OUT 517.29 (TO 543)
EXISTING GRADE
28'-15" SLCPP @ 1.00%
8" PVC

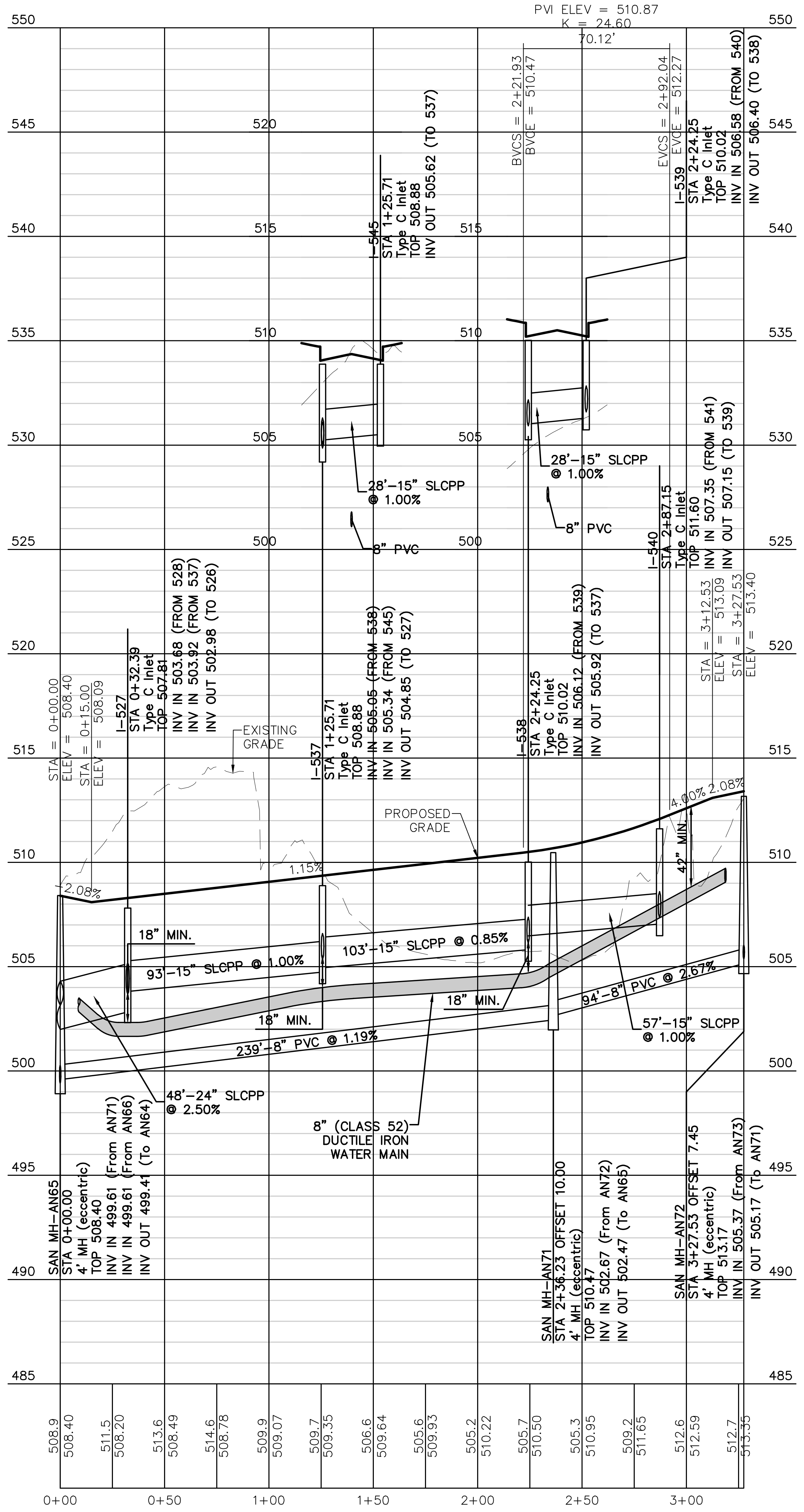
PROFILE: I-543 TO I-544
SCALE HORZ.: 1" = 50'
VERT.: 1" = 5'


I-546 STA 6+89.18 Type M Inlet TOP 518.73 INV OUT 515.45 (TO 542)
I-542 STA 6+89.18 Type M Inlet TOP 518.00 INV IN 514.33 (FROM 543) INV IN 514.32 (FROM 546) INV OUT 514.13 (TO 541)
EXISTING GRADE
14'-15" SLCPP @ 8.33%
8" PVC

PROFILE: I-546 TO I-542
SCALE HORZ.: 1" = 50'
VERT.: 1" = 5'


PVI STA = 1+21.73
PVI ELEV = 512.12
K = 22.97
40.00'
PVI STA = 2+50.00
PVI ELEV = 508.61
K = 78.92
60.00'
PROPOSED GRADE
EXISTING GRADE
-1.00%
-2.74%
-3.50%
8" (CLASS 52) DUCTILE IRON WATER MAIN
57'-15" SLCPP @ 0.70%
22'-15" SLCPP @ 1.00%
108'-15" SLCPP @ 4.57%
138'-8" CLDIP @ 3.17%
8" CLDIP
18" MIN.
EXISTING 36" SLCPP

PROFILE: LEROY DRIVE
SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


PVI STA = 2+56.99
PVI ELEV = 510.87
K = 24.60
70.12'
PROPOSED GRADE
EXISTING GRADE
1.15%
93'-15" SLCPP @ 1.00%
103'-15" SLCPP @ 0.85%
28'-15" SLCPP @ 1.00%
48'-24" SLCPP @ 2.50%
239'-8" PVC @ 1.19%
94'-8" PVC @ 2.67%
57'-15" SLCPP @ 1.00%
8" (CLASS 52) DUCTILE IRON WATER MAIN
8" PVC
18" MIN.

PROFILE: RIDGEVIEW AVENUE
SCALE HORZ.: 1" = 50' VERT.: 1" = 5'

Sheet Number:
28 of 40

Project Number:
15–100–34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

PLAN & PROFILE – JAMES STREET, LEROY DRIVE & RIDGEVIEW AVENUE

Drafting: D TURNER
Checked by: –
Scale: 1"=50'

Project Manager: DAVID B. KEGERIZE PE
Project Engineer: G. MITCHELL KING PE, PLS
Project Surveyor: MATTHEW D. DENNIS PE, PLS

0 25 50 100 150

Seal:
G. MITCHELL KING
ENGINEER
No. PE36683-E
1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538

Civil Engineers & Land Planners

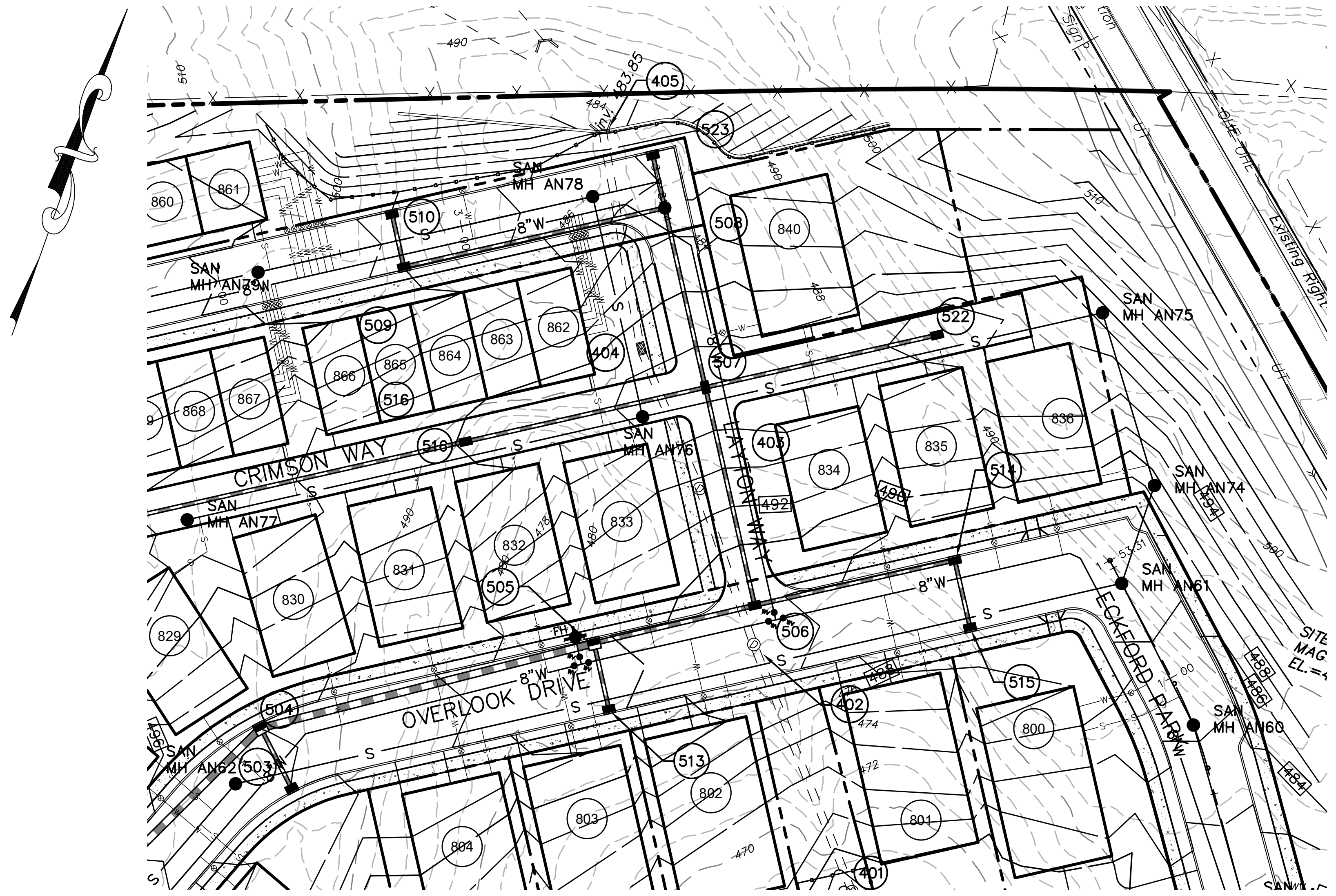
DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

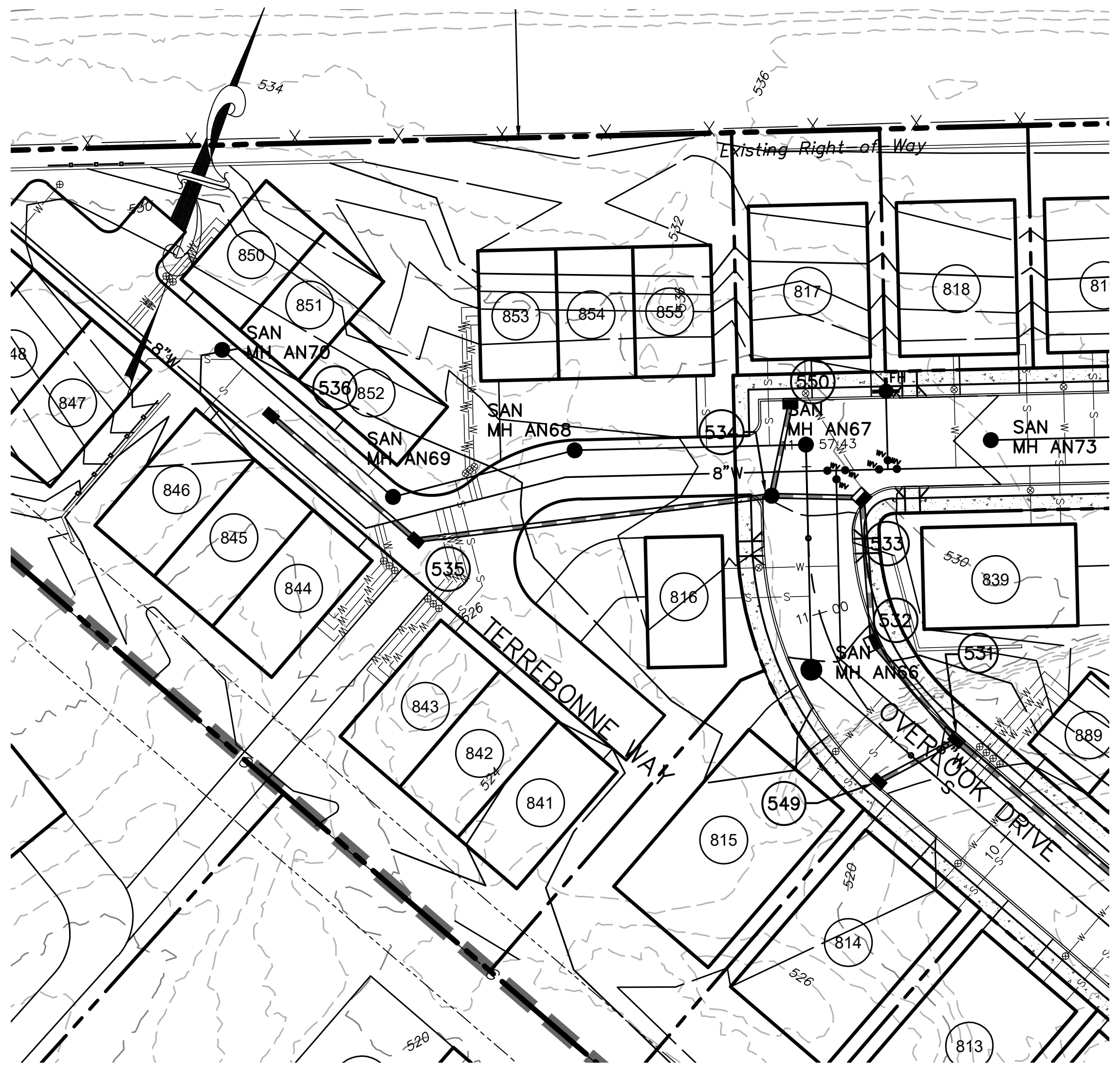
Section Number:
PF–2

L:\15–100–34\SHEETS\PRELIMINARY\28 PF–02.DWG

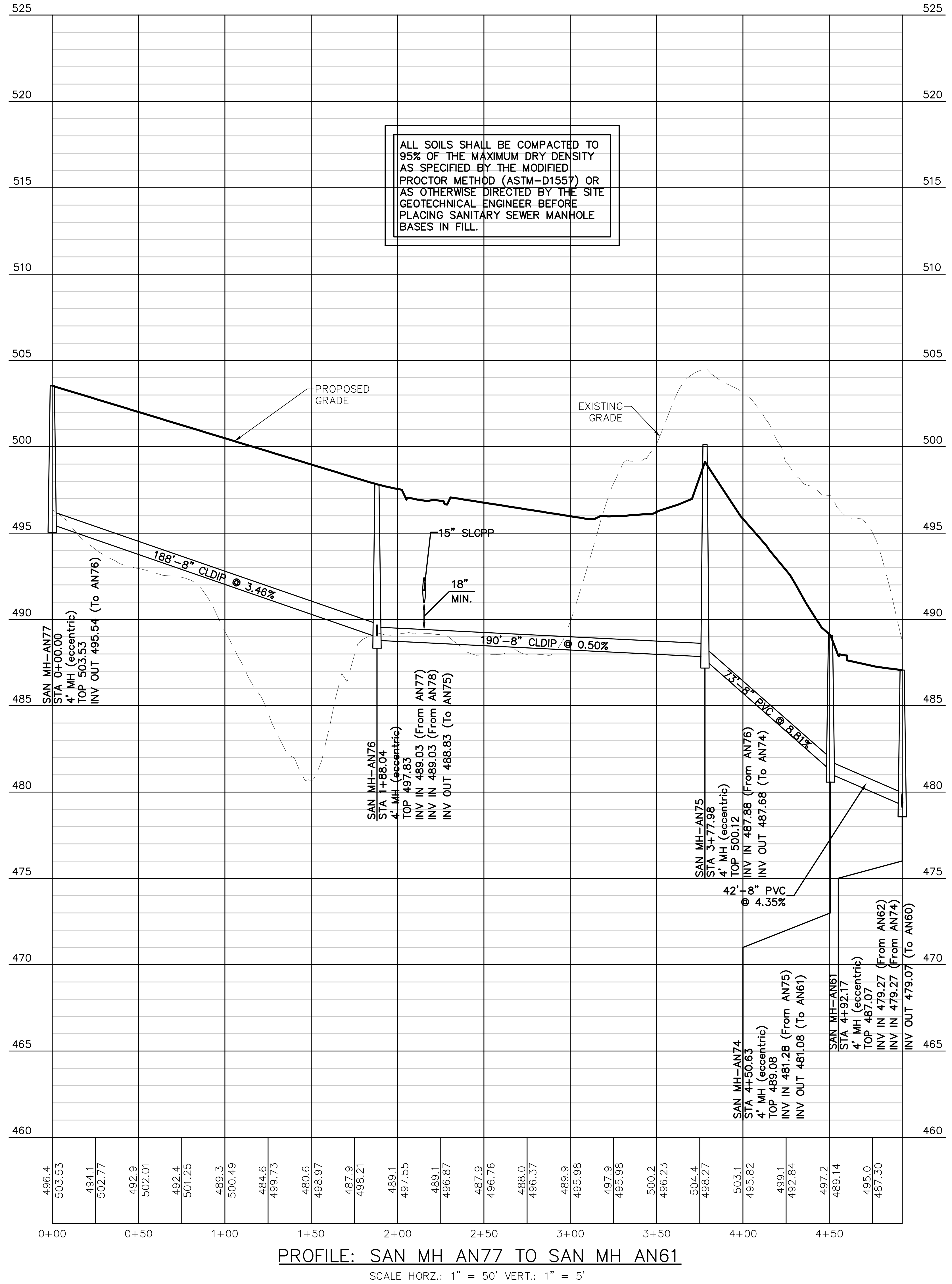
3/7/2025 4:07 PM

PRELIMINARY / FINAL





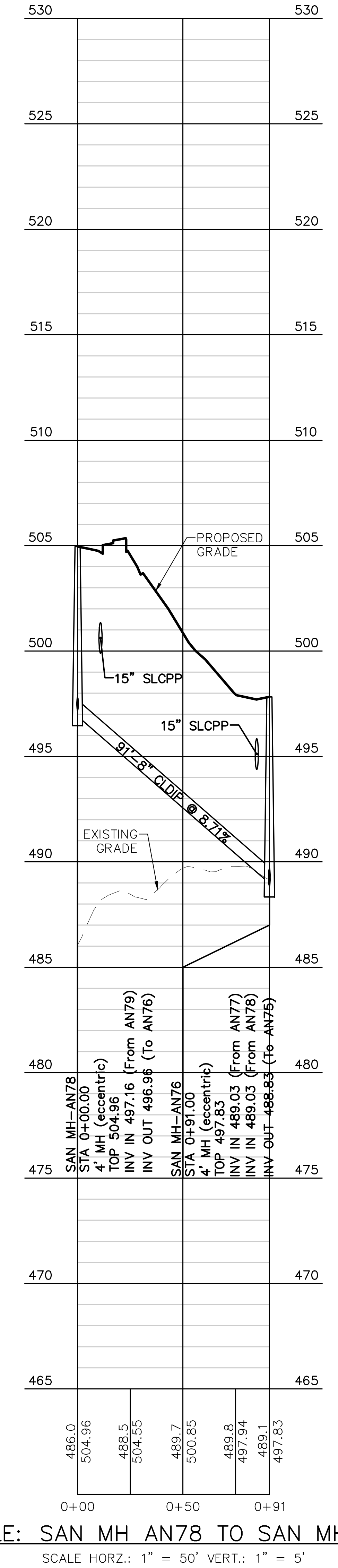
ALL SOILS SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS SPECIFIED BY THE MODIFIED PROCTOR METHOD (ASTM-D1557) OR AS OTHERWISE DIRECTED BY THE SITE GEOTECHNICAL ENGINEER BEFORE PLACING SANITARY SEWER MANHOLE BASES IN FILL.



PROPOSED GRADE
EXISTING GRADE
188'-8" CLDIP @ 3.46%
15" SLCPP
18" MIN.
190'-8" CLDIP @ 0.50%
73'-8" PVC @ 8.81%
42'-8" PVC @ 4.35%
SAN MH-AN77
STA 0+00.00
4' MH (eccentric)
TOP 503.53
INV OUT 495.54 (To AN76)
SAN MH-AN76
STA 1+88.04
4' MH (eccentric)
TOP 497.83
INV IN 489.03 (From AN77)
INV IN 489.03 (From AN78)
INV OUT 488.83 (To AN75)
SAN MH-AN75
STA 3+77.98
4' MH (eccentric)
TOP 500.12
INV IN 487.88 (From AN76)
INV OUT 487.68 (To AN74)
SAN MH-AN74
STA 4+50.63
4' MH (eccentric)
TOP 489.08
INV IN 481.28 (From AN75)
INV OUT 481.08 (To AN61)
SAN MH-AN61
STA 4+92.17
4' MH (eccentric)
TOP 487.07
INV IN 479.27 (From AN62)
INV IN 479.27 (From AN74)
INV OUT 479.07 (To AN60)

PROFILE: SAN MH AN77 TO SAN MH AN61

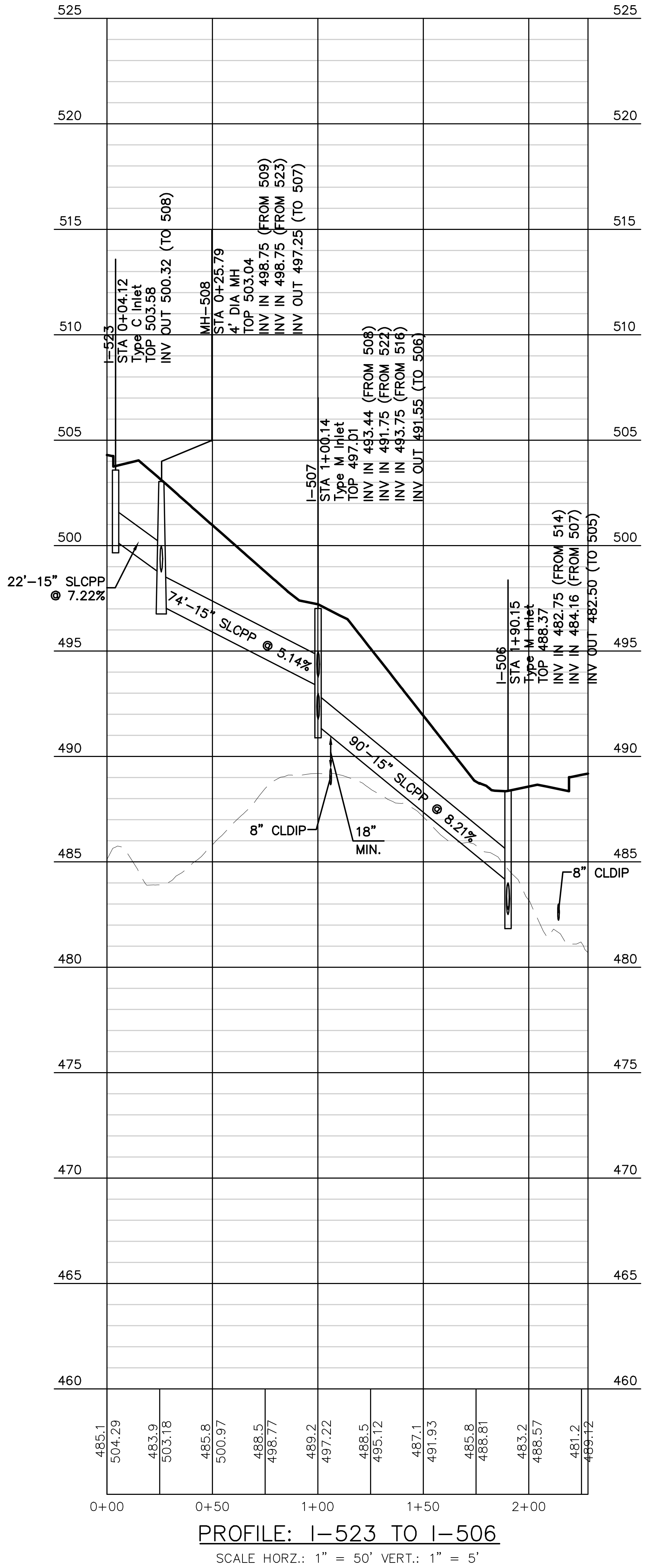
SCALE HORZ.: 1" = 50' VERT.: 1" = 5'



PROPOSED GRADE
15" SLCPP
91'-8" CLDIP @ 8.71%
EXISTING GRADE
SAN MH-AN78
STA 0+00.00
4' MH (eccentric)
TOP 504.96
INV IN 497.16 (From AN79)
INV OUT 496.96 (To AN76)
SAN MH-AN76
STA 0+91.00
4' MH (eccentric)
TOP 497.83
INV IN 489.03 (From AN77)
INV IN 489.03 (From AN78)
INV OUT 488.83 (To AN75)

PROFILE: SAN MH AN78 TO SAN MH AN76

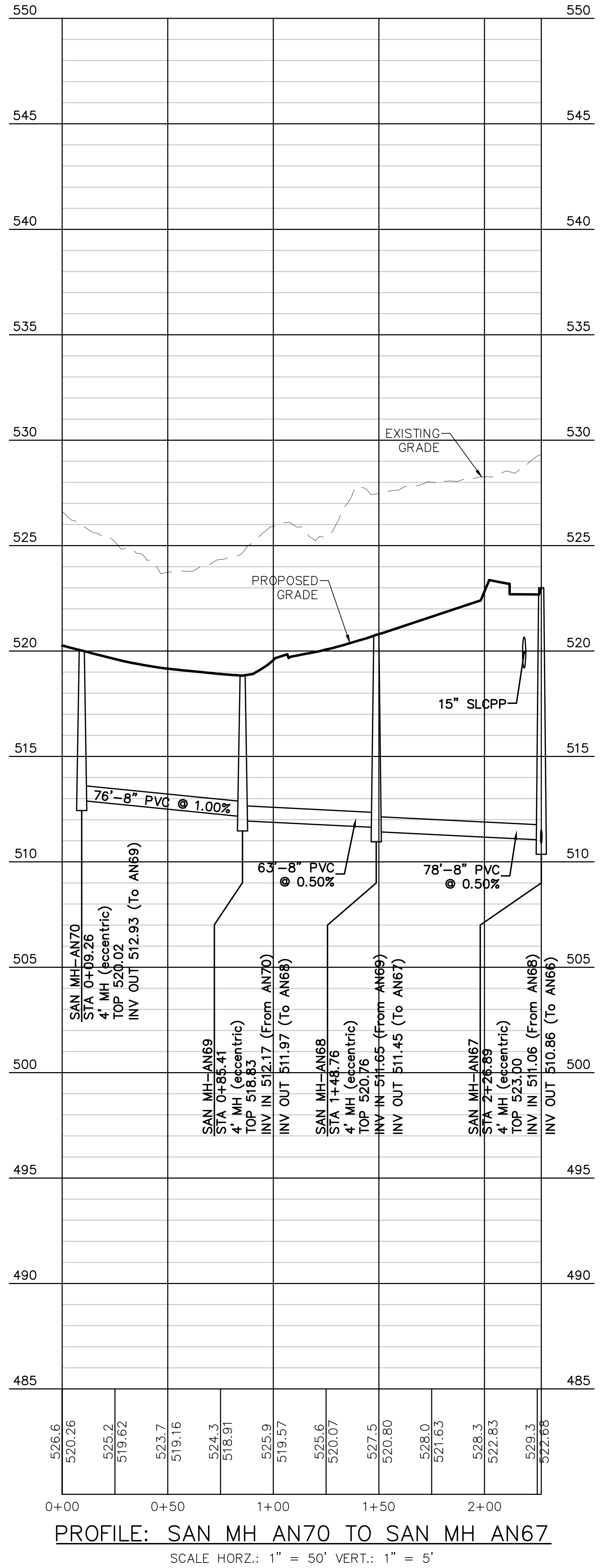
SCALE HORZ.: 1" = 50' VERT.: 1" = 5'



I-523
STA 0+04.12
Type C Inlet
TOP 503.58
INV OUT 500.32 (TO 508)
MH-508
STA 0+25.79
4' DIA MH
TOP 503.04
INV IN 498.75 (FROM 509)
INV IN 498.75 (FROM 523)
INV OUT 497.25 (TO 507)
I-507
STA 1+00.14
Type M Inlet
TOP 497.01
INV IN 493.44 (FROM 508)
INV IN 491.75 (FROM 522)
INV IN 493.75 (FROM 516)
INV OUT 491.55 (TO 506)
I-506
STA 1+90.15
Type M Inlet
TOP 488.37
INV IN 482.75 (FROM 514)
INV IN 484.16 (FROM 507)
INV OUT 482.50 (TO 505)
22'-15" SLCPP @ 7.22%
74'-15" SLCPP @ 5.14%
90'-15" SLCPP @ 8.21%
8" CLDIP
18" MIN.
8" CLDIP

PROFILE: I-523 TO I-506

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'



EXISTING GRADE
PROPOSED GRADE
15" SLCPP
76'-8" PVC @ 1.00%
63'-8" PVC @ 0.50%
78'-8" PVC @ 0.50%
SAN MH-AN70
STA 0+09.26
4' MH (eccentric)
TOP 520.02
INV OUT 512.93 (To AN69)
SAN MH-AN69
STA 0+85.41
4' MH (eccentric)
TOP 518.83
INV IN 512.17 (From AN70)
INV OUT 511.97 (To AN68)
SAN MH-AN68
STA 1+48.76
4' MH (eccentric)
TOP 520.76
INV IN 511.65 (From AN69)
INV OUT 511.45 (To AN67)
SAN MH-AN67
STA 2+26.89
4' MH (eccentric)
TOP 523.00
INV IN 511.06 (From AN68)
INV OUT 510.86 (To AN66)

PROFILE: SAN MH AN70 TO SAN MH AN67

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'

Sheet Number:
29 of 40

Project Number:
15-100-34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

PLAN & PROFILE OFF-STREET UTILITIES

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: -
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: 1"=50'

0 25 50 100 150

Seal:
G. MITCHELL KING
No. PE36683-E
1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538

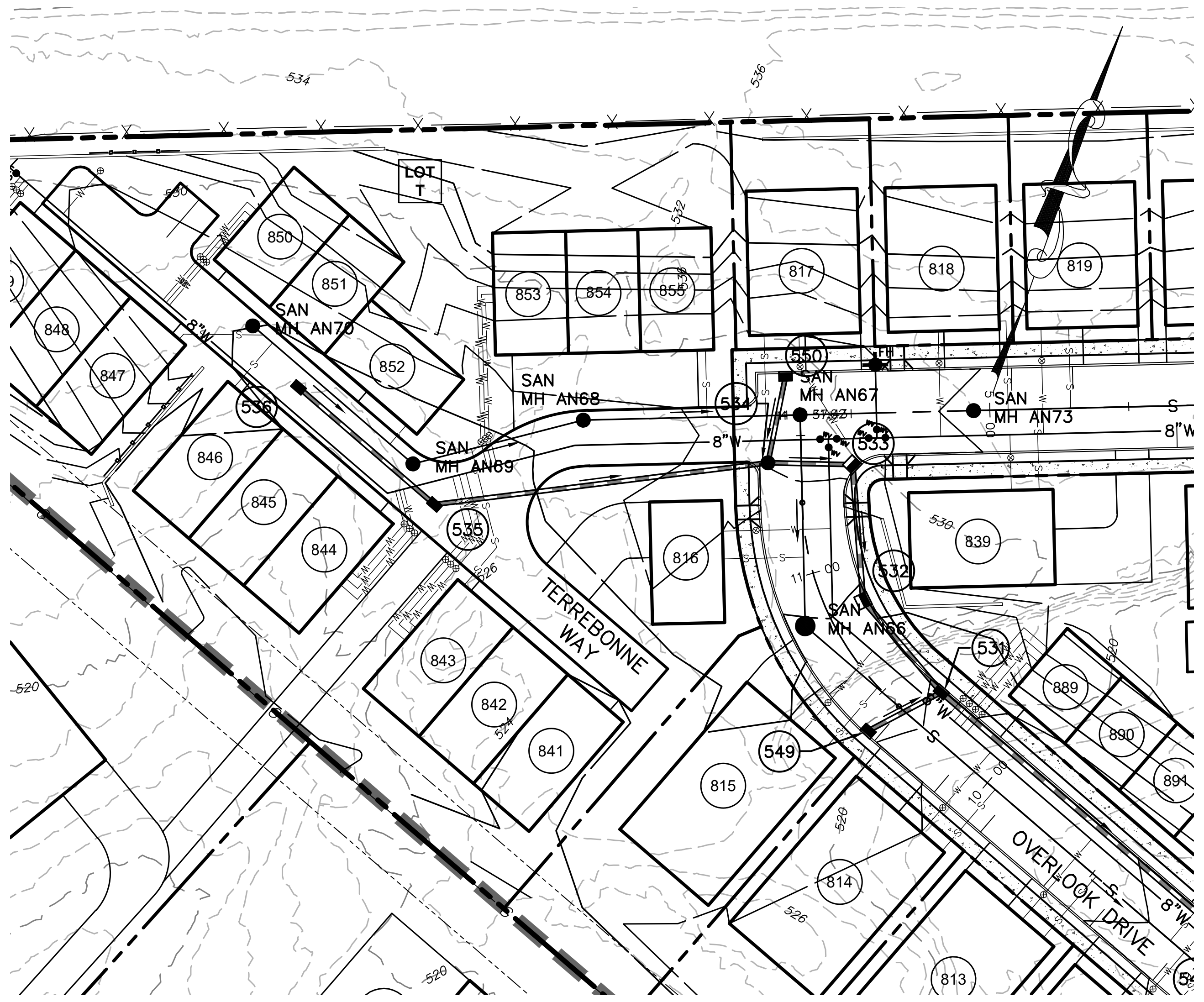
Civil Engineers & Land Planners

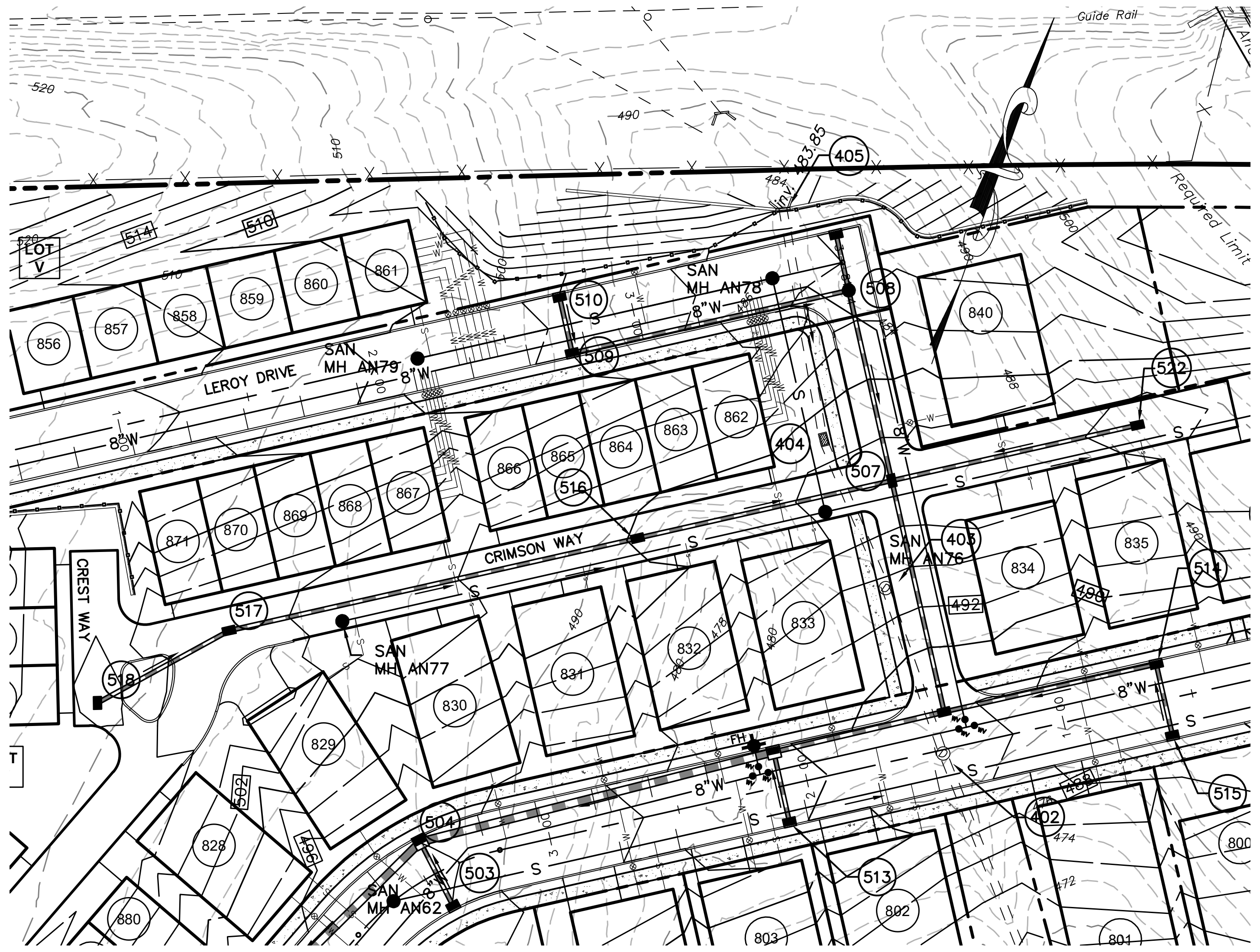
DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

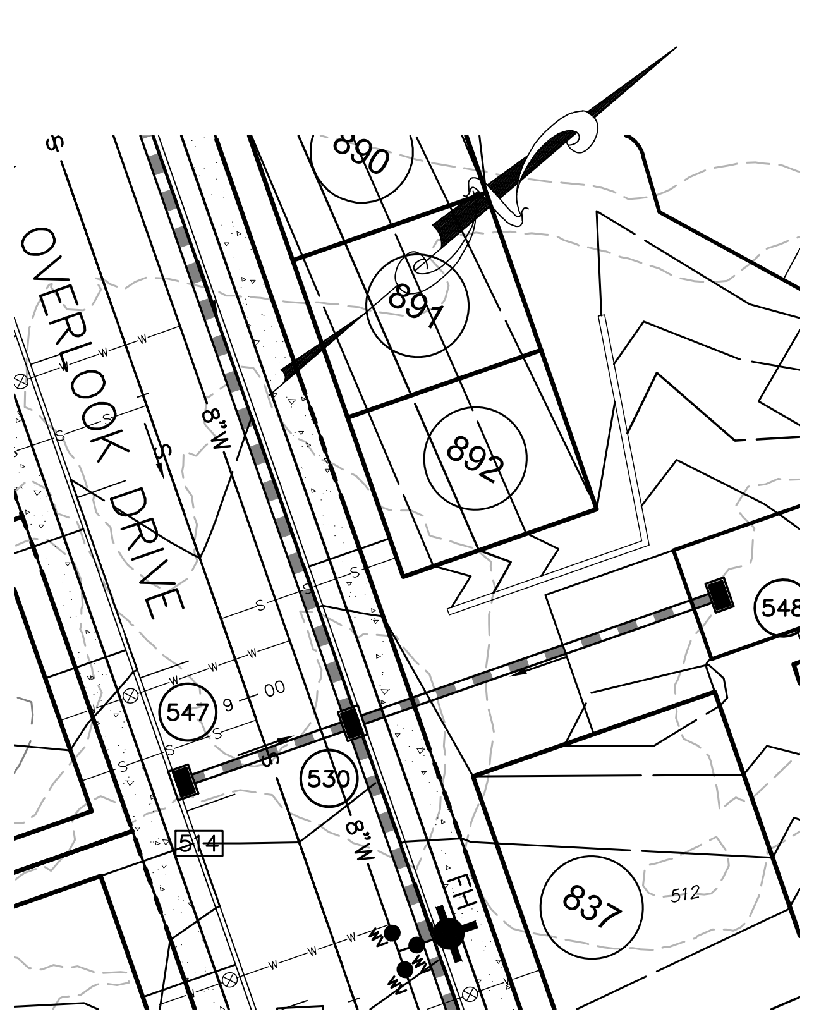
Section Number:
PF-3

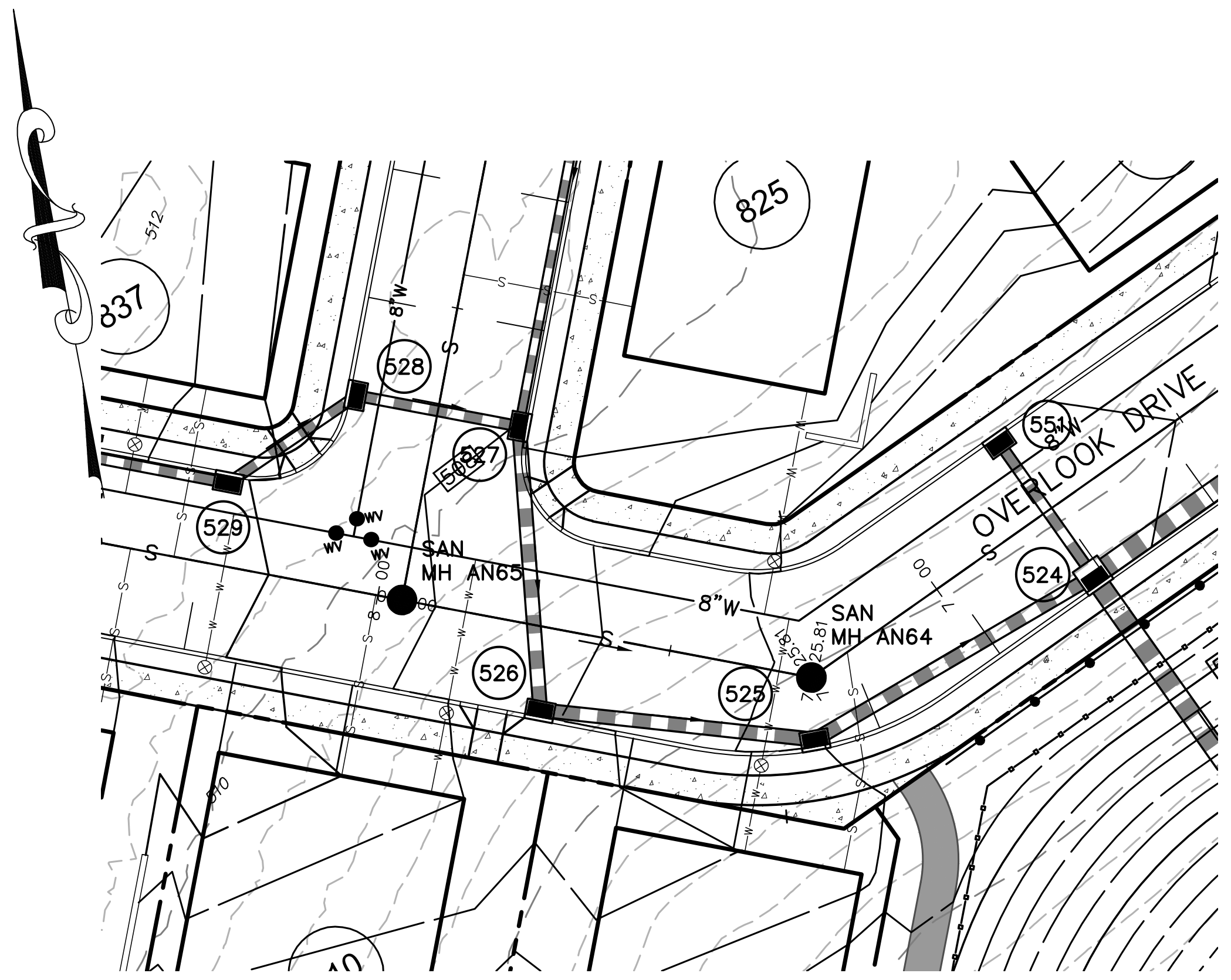
3/7/2025 4:09 PM L:\15-100-34\SHEETS\PRELIMINARY\29 PF-03.DWG

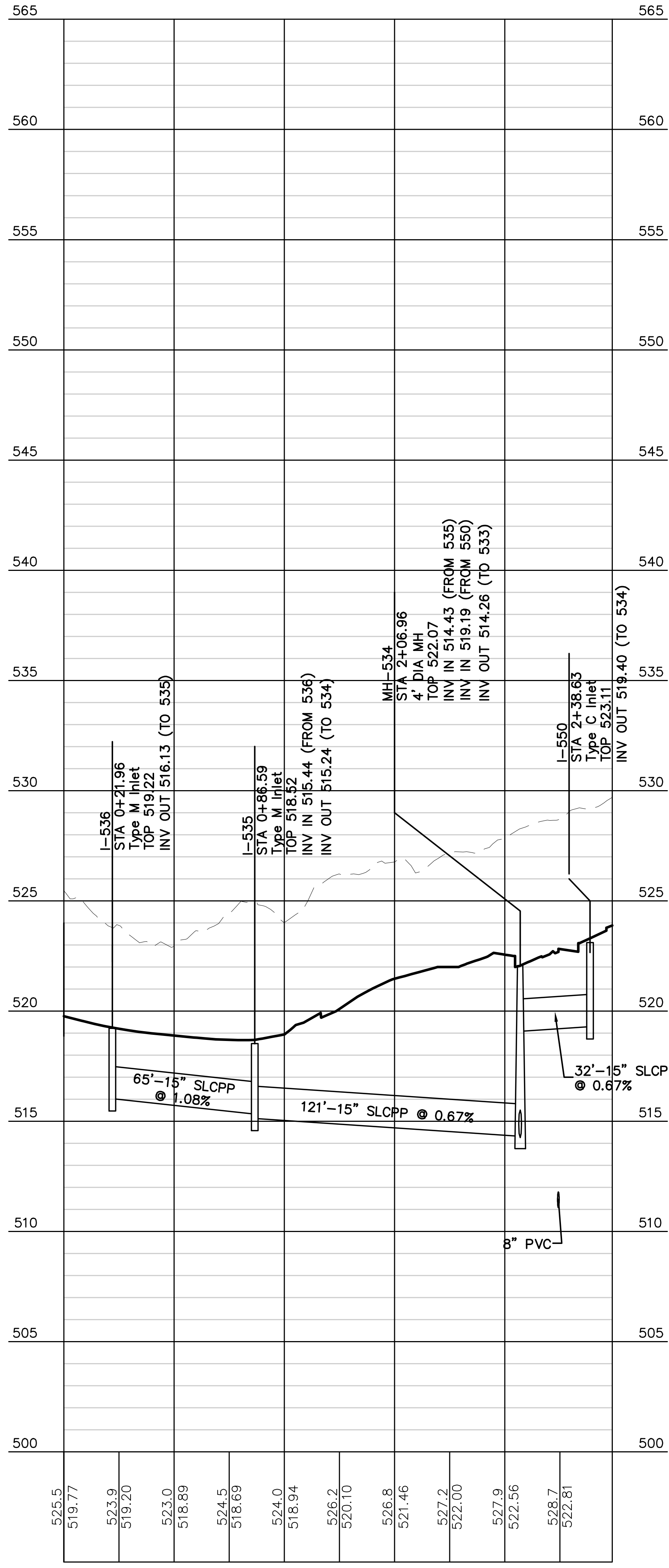
PRELIMINARY / FINAL


SAN MH AN70
SAN MH AN69
SAN MH AN68
SAN MH AN67
SAN MH AN73
SAN MH AN66
TERREBONNE WAY
OVERLOOK DRIVE
8"W
LOT 1
536
535
534
533
532
531
549
550


Guide Rail
SAN MH AN78
SAN MH AN79
SAN MH AN76
SAN MH AN77
SAN MH AN62
LEROY DRIVE
CRIMSON WAY
CREST WAY
405
510
506
522
404
507
516
517
518
504
503
513
502
515

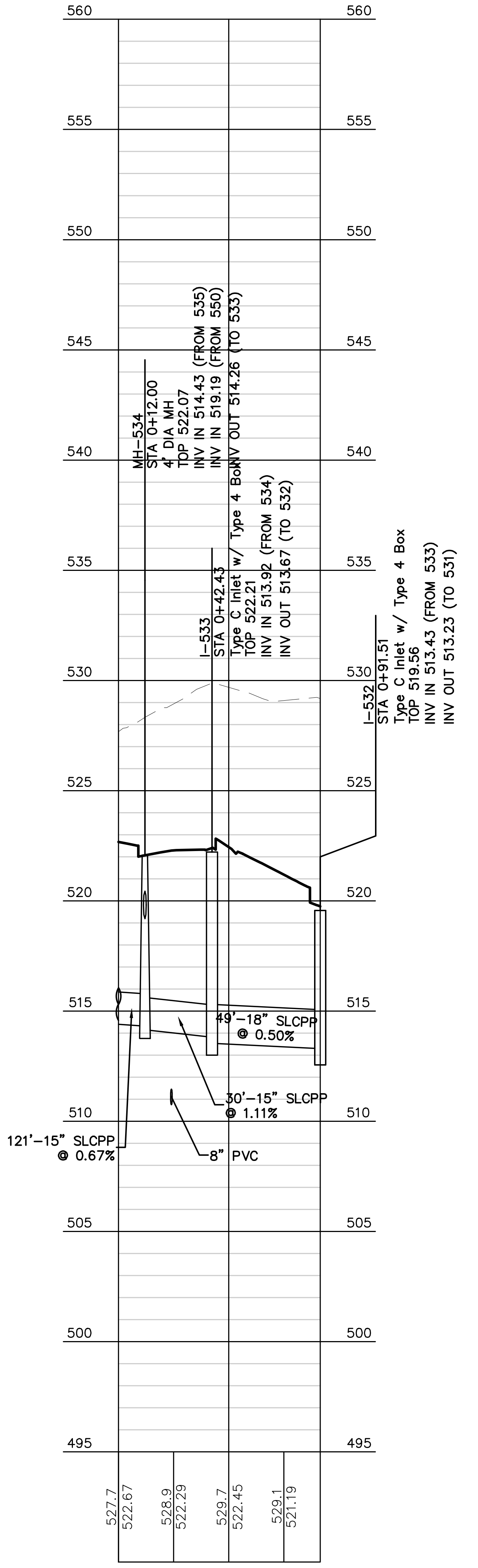

OVERLOOK DRIVE
547
530
548
SCALE: 1" = 30'


OVERLOOK DRIVE
SAN MH AN65
SAN MH AN64
528
527
529
526
525
524
SCALE: 1" = 30'


I-536
STA 0+21.96
Type M Inlet
TOP 519.22
INV OUT 516.13 (TO 535)
I-535
STA 0+86.59
Type M Inlet
TOP 518.52
INV IN 515.44 (FROM 536)
INV OUT 515.24 (TO 534)
MH-534
STA 2+06.96
4' DIA MH
TOP 522.07
INV IN 514.43 (FROM 535)
INV IN 519.19 (FROM 550)
INV OUT 514.26 (TO 533)
I-550
STA 2+38.63
Type C Inlet
TOP 523.11
INV OUT 519.40 (TO 534)
65'-15" SLCPP @ 1.08%
121'-15" SLCPP @ 0.67%
32'-15" SLCPP @ 0.67%
8" PVC

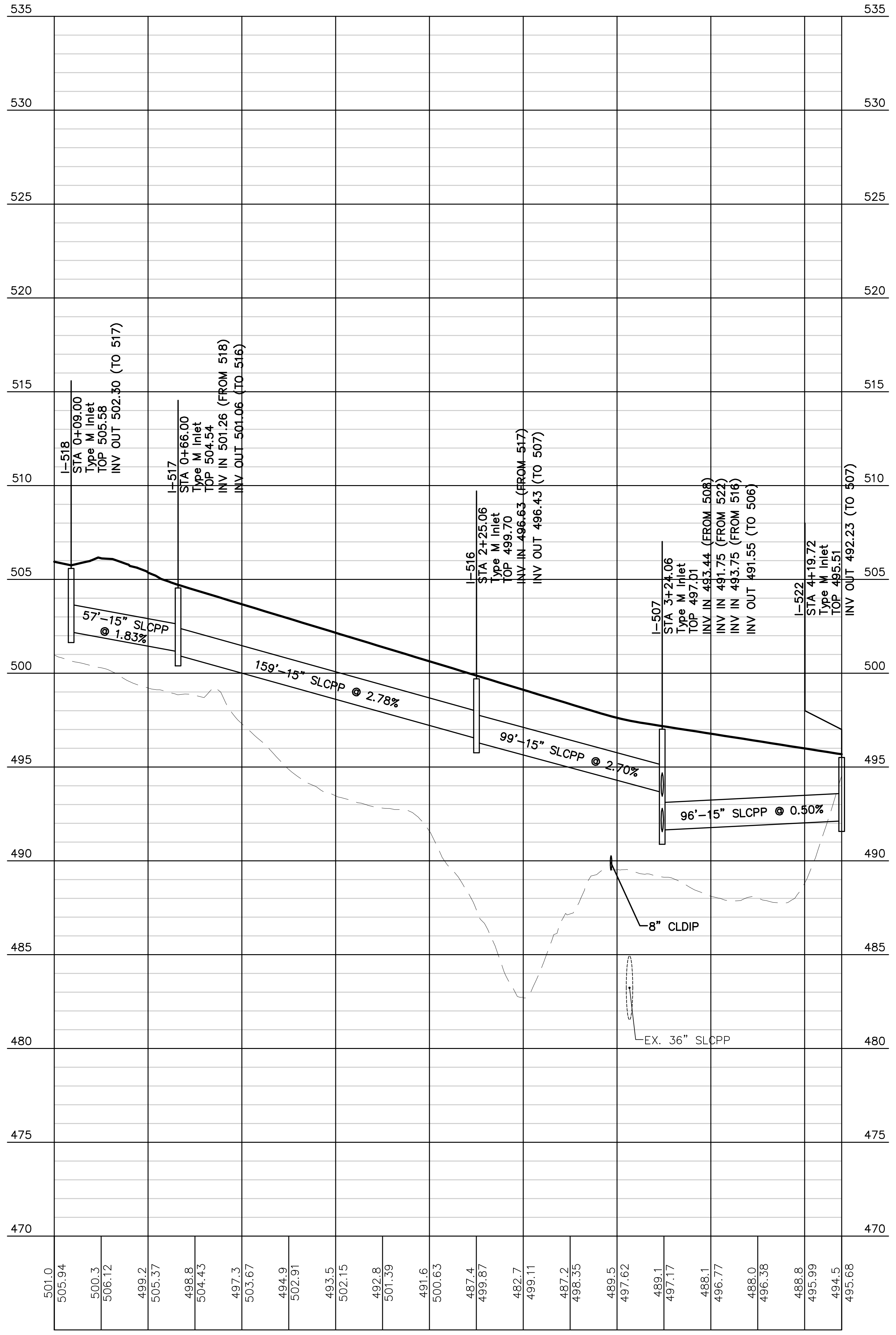
PROFILE: I-536 TO I-550

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


MH-534
STA 0+12.00
4' DIA MH
TOP 522.07
INV IN 514.43 (FROM 535)
INV IN 519.19 (FROM 550)
INV OUT 514.26 (TO 533)
I-533
STA 0+42.43
Type C Inlet w/ Type 4 Box
TOP 522.21
INV IN 513.92 (FROM 534)
INV OUT 513.67 (TO 532)
I-532
STA 0+91.51
Type C Inlet w/ Type 4 Box
TOP 519.56
INV IN 513.43 (FROM 533)
INV OUT 513.23 (TO 531)
49'-18" SLCPP @ 0.50%
30'-15" SLCPP @ 1.11%
121'-15" SLCPP @ 0.67%
8" PVC

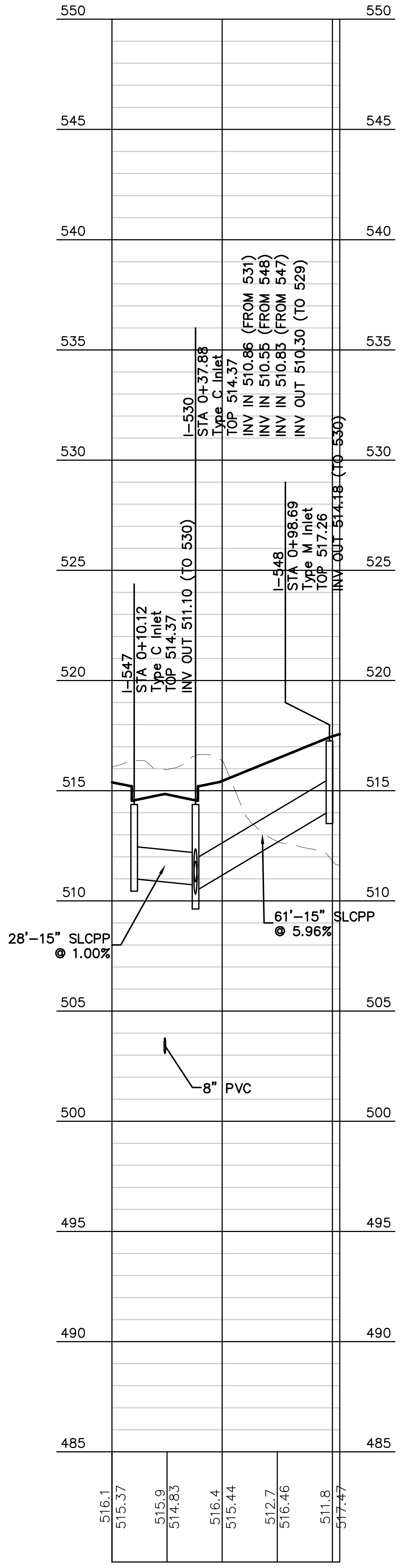
PROFILE: MH-534 TO I-532

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


I-518
STA 0+09.00
Type M Inlet
TOP 505.58
INV OUT 502.30 (TO 517)
I-517
STA 0+66.00
Type M Inlet
TOP 504.54
INV IN 501.26 (FROM 518)
INV OUT 501.06 (TO 516)
I-516
STA 2+25.06
Type M Inlet
TOP 499.70
INV IN 496.63 (FROM 517)
INV OUT 496.43 (TO 507)
I-507
STA 3+24.06
Type M Inlet
TOP 497.01
INV IN 493.44 (FROM 508)
INV IN 491.75 (FROM 522)
INV IN 493.75 (FROM 516)
INV OUT 491.55 (TO 506)
I-522
STA 4+19.72
Type M Inlet
TOP 495.51
INV OUT 492.23 (TO 507)
57'-15" SLCPP @ 1.83%
159'-15" SLCPP @ 2.78%
99'-15" SLCPP @ 2.70%
96'-15" SLCPP @ 0.50%
8" CLDIP
EX. 36" SLCPP

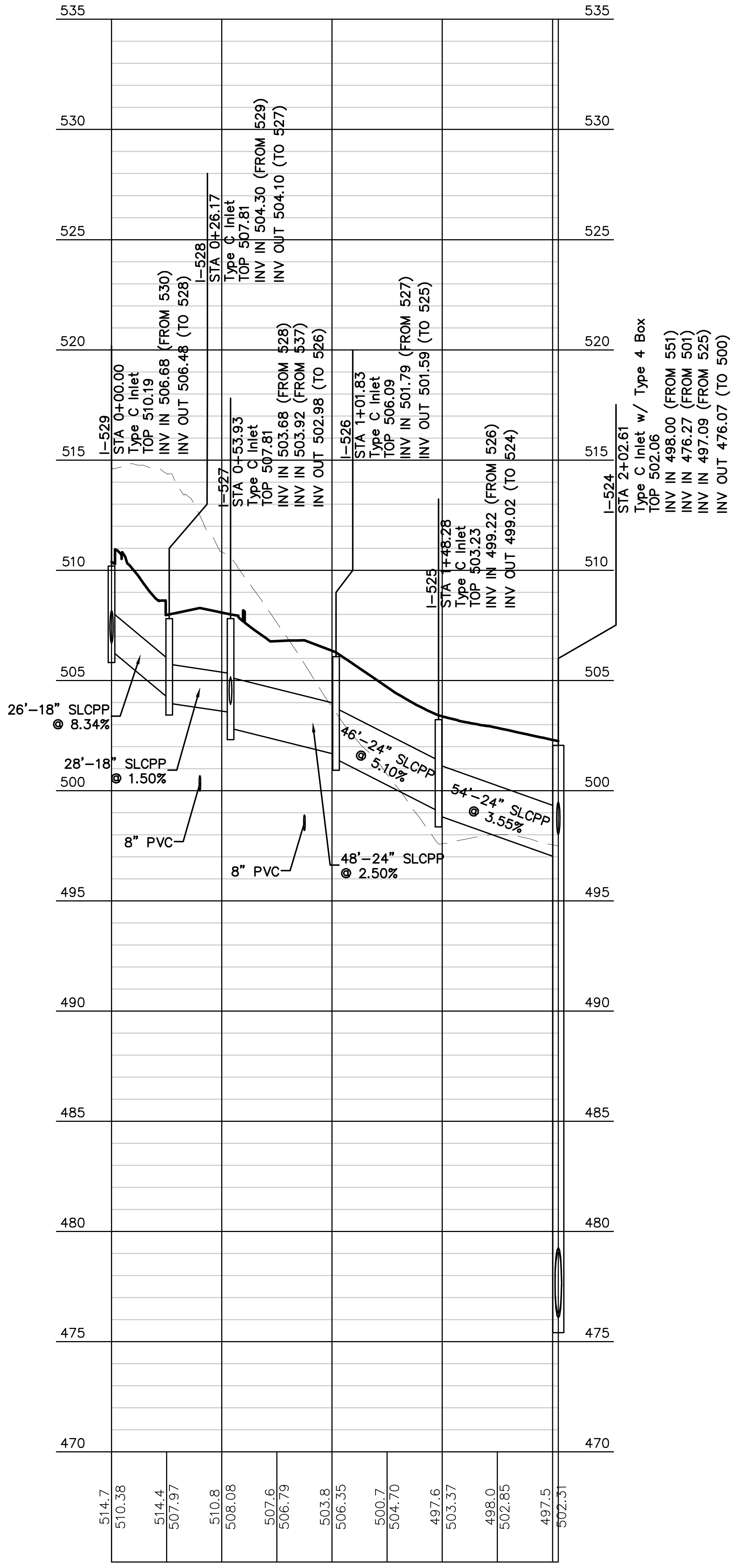
PROFILE: I-518 TO I-522

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


I-547
STA 0+10.12
Type C Inlet
TOP 514.37
INV OUT 511.10 (TO 530)
I-530
STA 0+37.88
Type C Inlet
TOP 514.37
INV IN 510.86 (FROM 531)
INV IN 510.55 (FROM 548)
INV IN 510.83 (FROM 547)
INV OUT 510.30 (TO 529)
I-548
STA 0+98.69
Type M Inlet
TOP 517.26
INV OUT 514.18 (TO 530)
28'-15" SLCPP @ 1.00%
61'-15" SLCPP @ 5.96%
8" PVC

PROFILE: I-547 TO I-548

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


I-529
STA 0+00.00
Type C Inlet
TOP 510.19
INV IN 506.68 (FROM 530)
INV OUT 506.48 (TO 528)
I-528
STA 0+26.17
Type C Inlet
TOP 507.81
INV IN 504.30 (FROM 529)
INV OUT 504.10 (TO 527)
I-527
STA 0+53.93
Type C Inlet
TOP 507.81
INV IN 503.68 (FROM 528)
INV IN 503.92 (FROM 537)
INV OUT 502.98 (TO 526)
I-526
STA 1+01.83
Type C Inlet
TOP 506.09
INV IN 501.79 (FROM 527)
INV OUT 501.59 (TO 525)
I-525
STA 1+48.28
Type C Inlet
TOP 503.23
INV IN 499.22 (FROM 526)
INV OUT 499.02 (TO 524)
I-524
STA 2+02.61
Type C Inlet w/ Type 4 Box
TOP 502.06
INV IN 498.00 (FROM 551)
INV IN 476.27 (FROM 501)
INV IN 497.09 (FROM 525)
INV OUT 476.07 (TO 500)
26'-18" SLCPP @ 8.34%
28'-18" SLCPP @ 1.50%
46'-24" SLCPP @ 5.10%
48'-24" SLCPP @ 2.50%
54'-24" SLCPP @ 3.55%
8" PVC
8" PVC

PROFILE: I-529 TO I-524

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'

Sheet Number:
30 of 40

Project Number:
15-100-34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

PLAN & PROFILE OFF-STREET UTILITIES

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: 1"=50'

0 25 50 100 150

Seal:
G. MITCHELL KING
No. PE36683-E
1/7/25

TOWNE SQUARE ENGINEERING

313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538

Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
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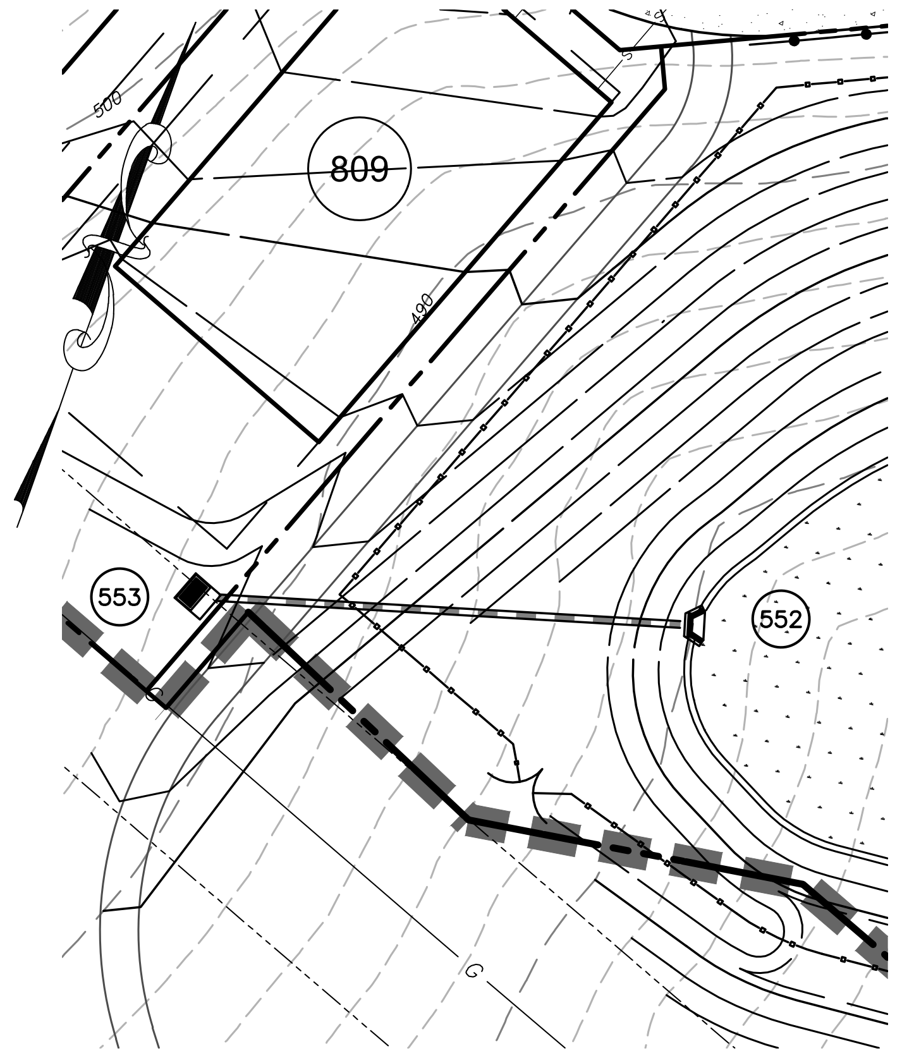
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

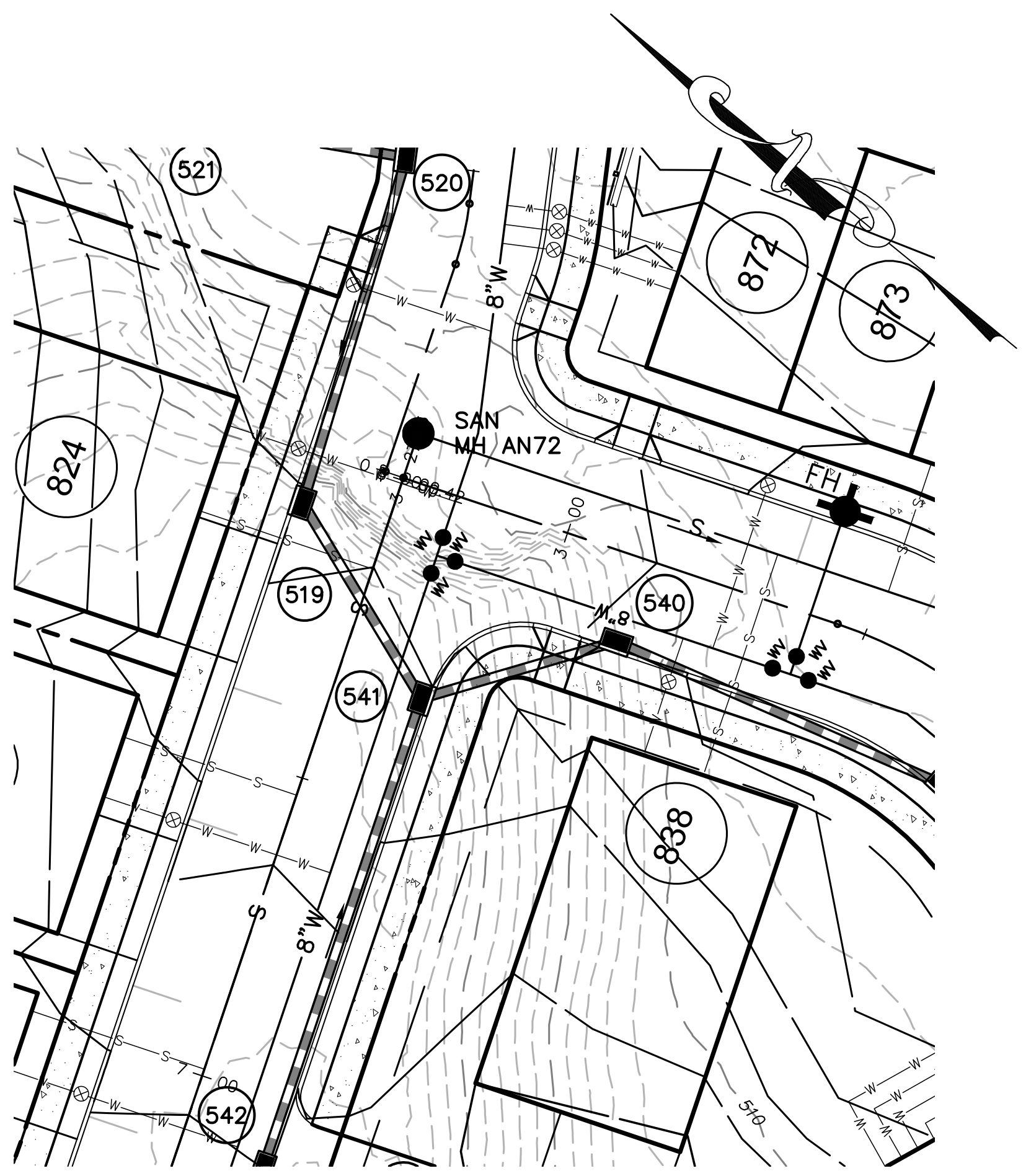
Section Number:
PF-4

3/7/2025 4:11 PM L:\15-100-34\SHEETS\PRELIMINARY\30 PF-04.DWG

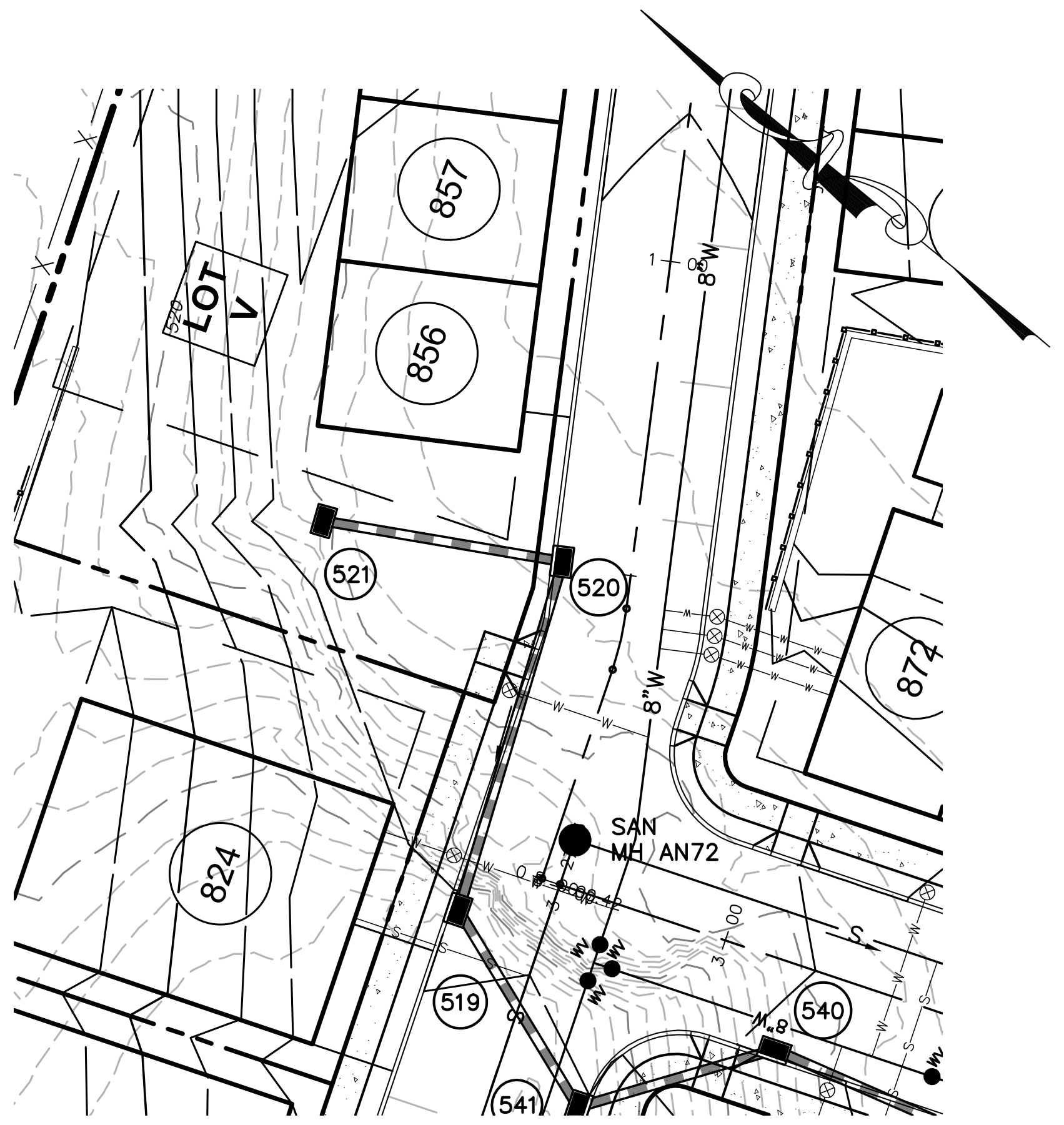
PRELIMINARY / FINAL



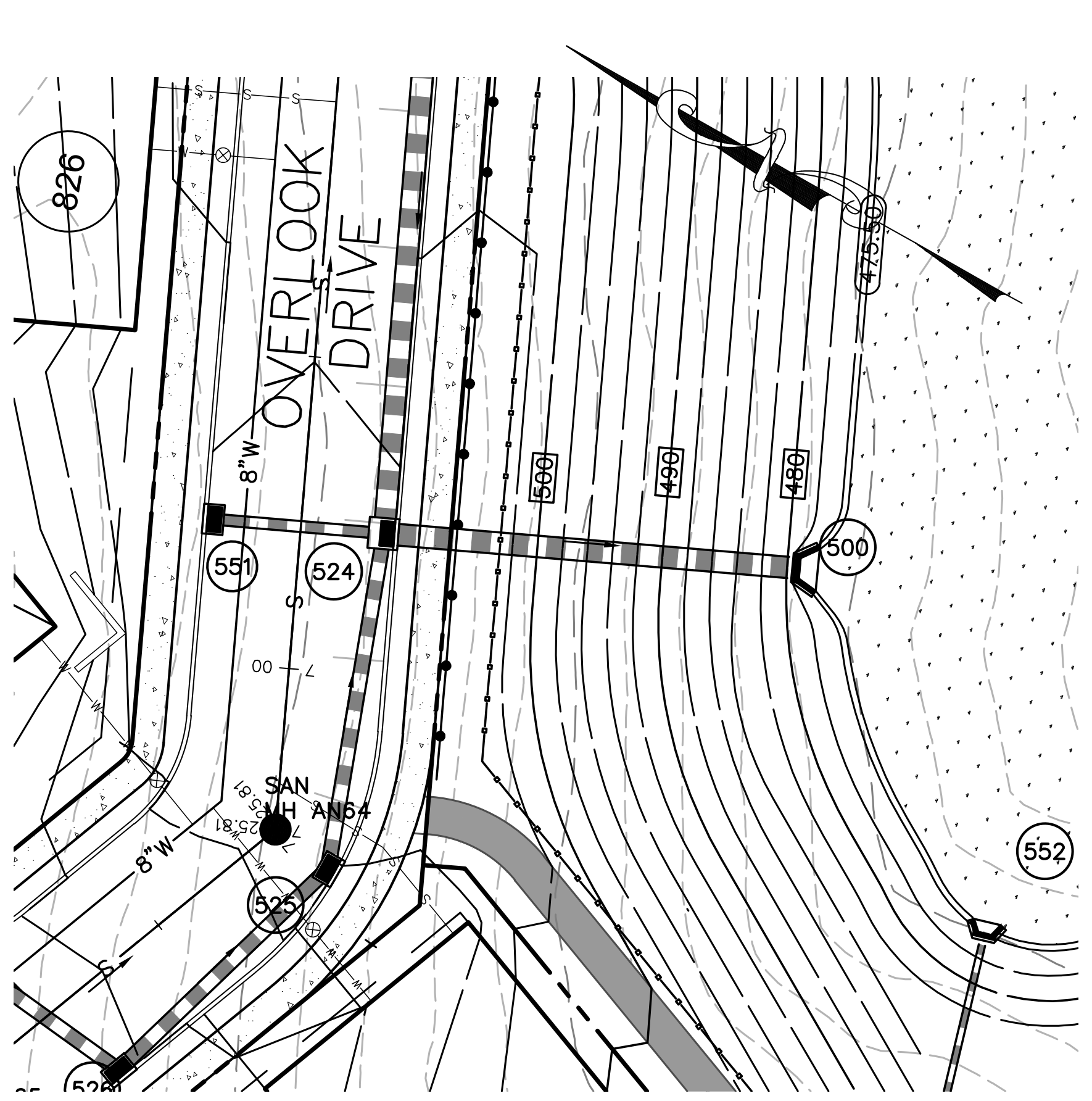
SCALE: 1" = 30'


521
520
872
873
824
SAN MH AN72
8"W
FH
519
540
541
838
542
S

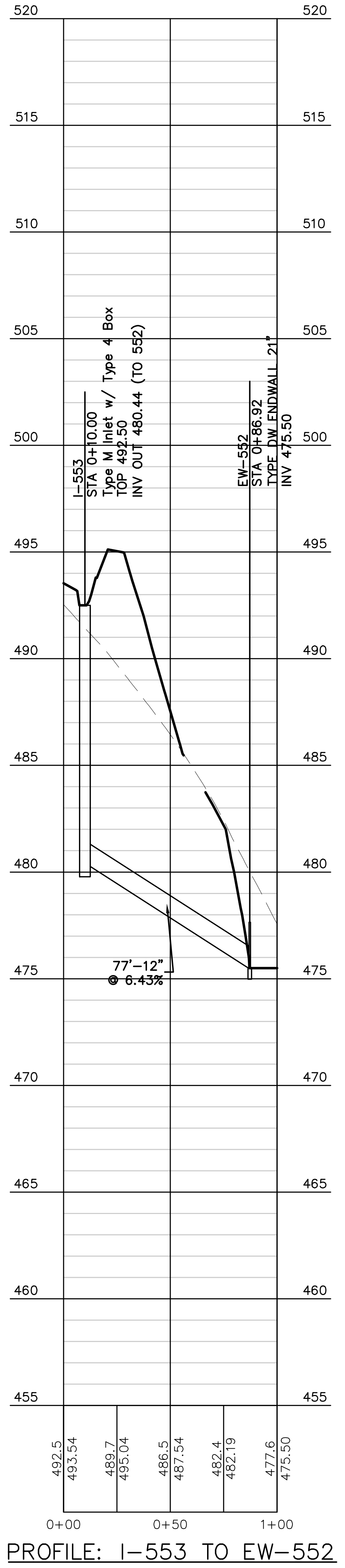
SCALE: 1" = 30'


LOT V
857
856
521
520
872
824
SAN MH AN72
8"W
519
540
541

SCALE: 1" = 30'

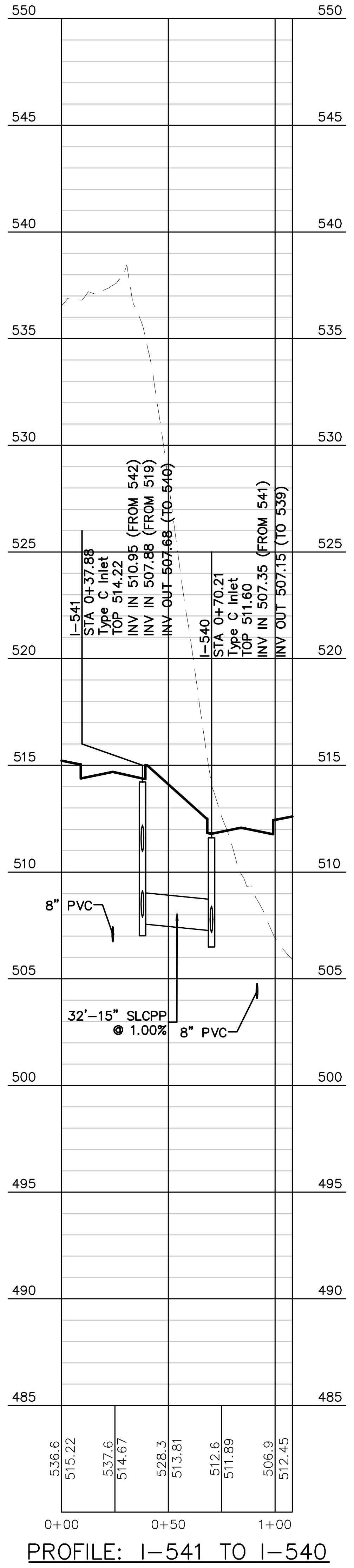

826
OVERLOOK DRIVE
8"W
551
524
SAN MH AN64
500
552

SCALE: 1" = 30'


520
515
510
505
500
495
490
485
480
475
470
465
460
455
I-553
STA 0+10.00
Type M Inlet w/ Type 4 Box
TOP 492.50
INV OUT 480.44 (TO 552)
EW-552
STA 0+86.92
TYPE DW ENDWALL 21"
INV 475.50
77'-12"
@ 6.43%
492.5
493.54
489.7
495.04
486.5
487.54
482.4
482.19
477.6
475.50
0+00
0+50
1+00

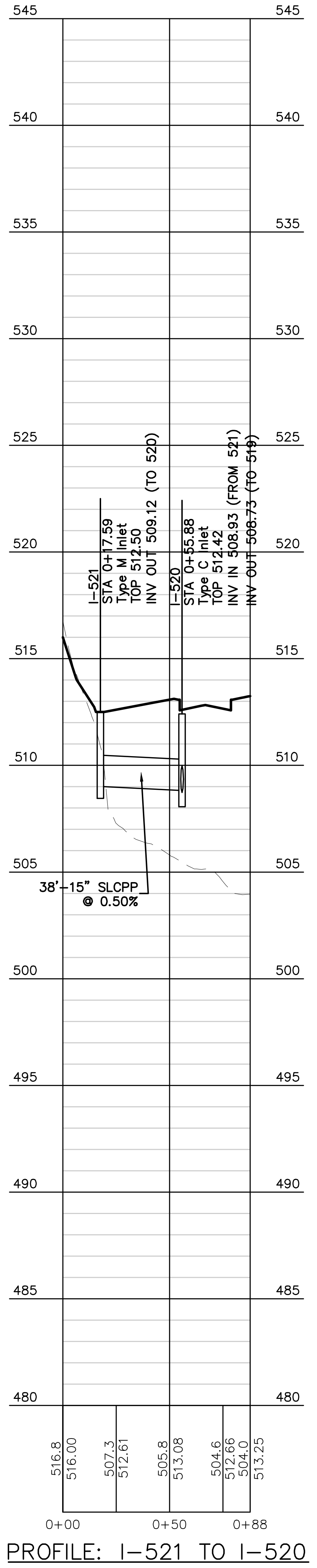
PROFILE: I-553 TO EW-552

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


550
545
540
535
530
525
520
515
510
505
500
495
490
485
I-541
STA 0+37.88
Type C Inlet
TOP 514.22
INV IN 510.95 (FROM 542)
INV IN 507.88 (FROM 519)
INV OUT 507.68 (TO 540)
I-540
STA 0+70.21
Type C Inlet
TOP 511.60
INV IN 507.35 (FROM 541)
INV OUT 507.15 (TO 539)
8" PVC
32'-15" SLCPP
@ 1.00%
8" PVC
536.6
515.22
537.6
514.67
528.3
513.81
512.6
511.89
506.9
512.45
0+00
0+50
1+00

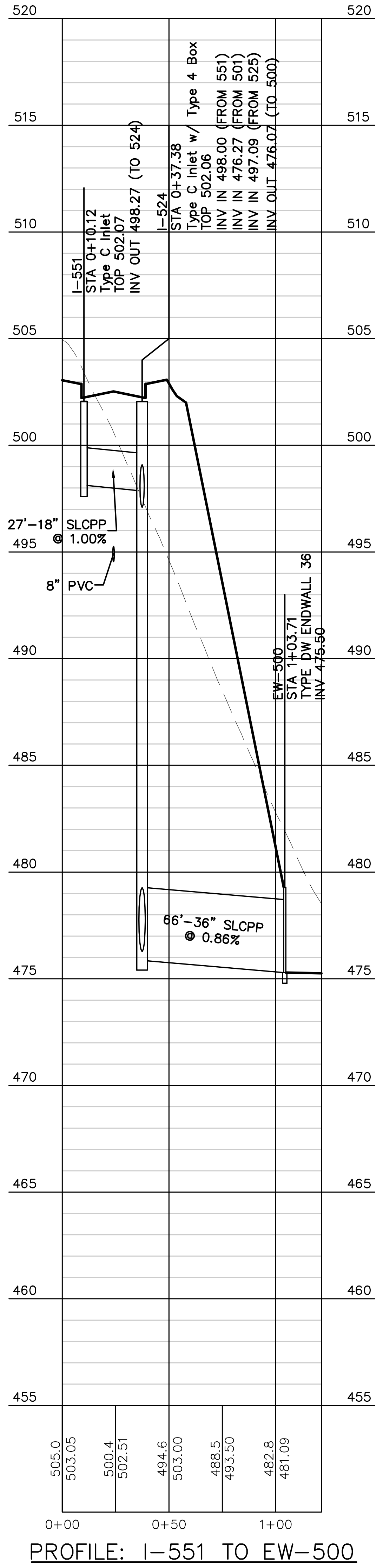
PROFILE: I-541 TO I-540

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


545
540
535
530
525
520
515
510
505
500
495
490
485
480
I-521
STA 0+17.59
Type M Inlet
TOP 512.50
INV OUT 509.12 (TO 520)
I-520
STA 0+55.88
Type C Inlet
TOP 512.42
INV IN 508.93 (FROM 521)
INV OUT 508.73 (TO 519)
38'-15" SLCPP
@ 0.50%
516.8
516.00
507.3
512.61
505.8
513.08
504.6
512.66
504.0
513.25
0+00
0+50
0+88

PROFILE: I-521 TO I-520

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


520
515
510
505
500
495
490
485
480
475
470
465
460
455
I-551
STA 0+10.12
Type C Inlet
TOP 502.07
INV OUT 498.27 (TO 524)
I-524
STA 0+37.38
Type C Inlet w/ Type 4 Box
TOP 502.06
INV IN 498.00 (FROM 551)
INV IN 476.27 (FROM 501)
INV IN 497.09 (FROM 525)
INV OUT 476.07 (TO 500)
27'-18" SLCPP
@ 1.00%
8" PVC
EW-500
STA 1+03.71
TYPE DW ENDWALL 36
INV 475.50
66'-36" SLCPP
@ 0.86%
505.0
503.05
500.4
502.51
494.6
503.00
488.5
493.50
482.8
481.09
0+00
0+50
1+00

PROFILE: I-551 TO EW-500

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'

Sheet Number:
31 of 40

Project Number:
15-100-34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

PLAN & PROFILE OFF-STREET UTILITIES

Drafting:
D TURNER

Checked by:
–

Scale:
1"=50'

0 25 50 100 150

Project Manager:
DAVID B. KEGERIZE PE

Project Engineer:
G. MITCHELL KING PE, PLS

Project Surveyor:
MATTHEW D. DENNIS PE, PLS

Seal:
G. MITCHELL KING
No. PE36683-E
1/17/25

TOWNE
SQUARE
ENGINEERING

313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538

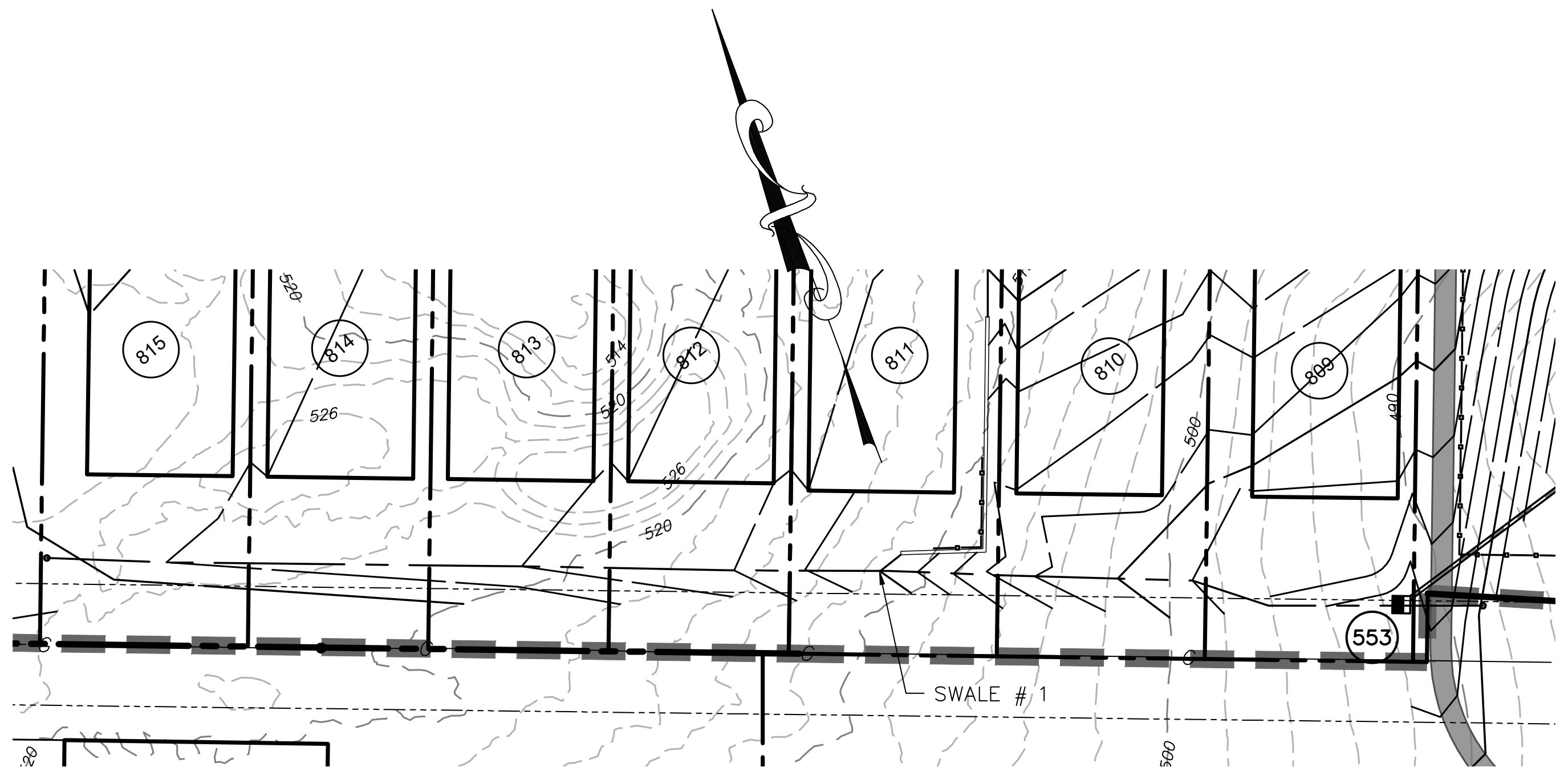
Civil Engineers & Land Planners

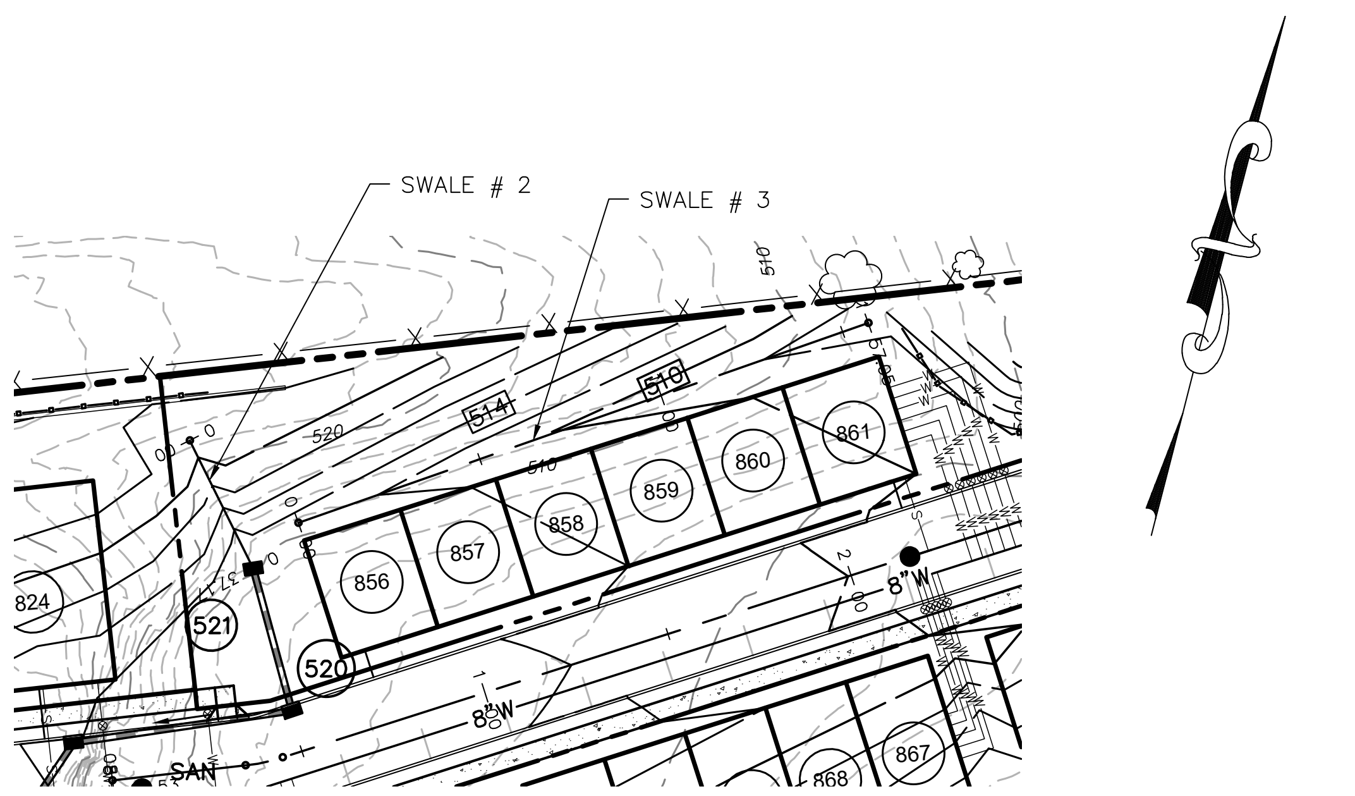
DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

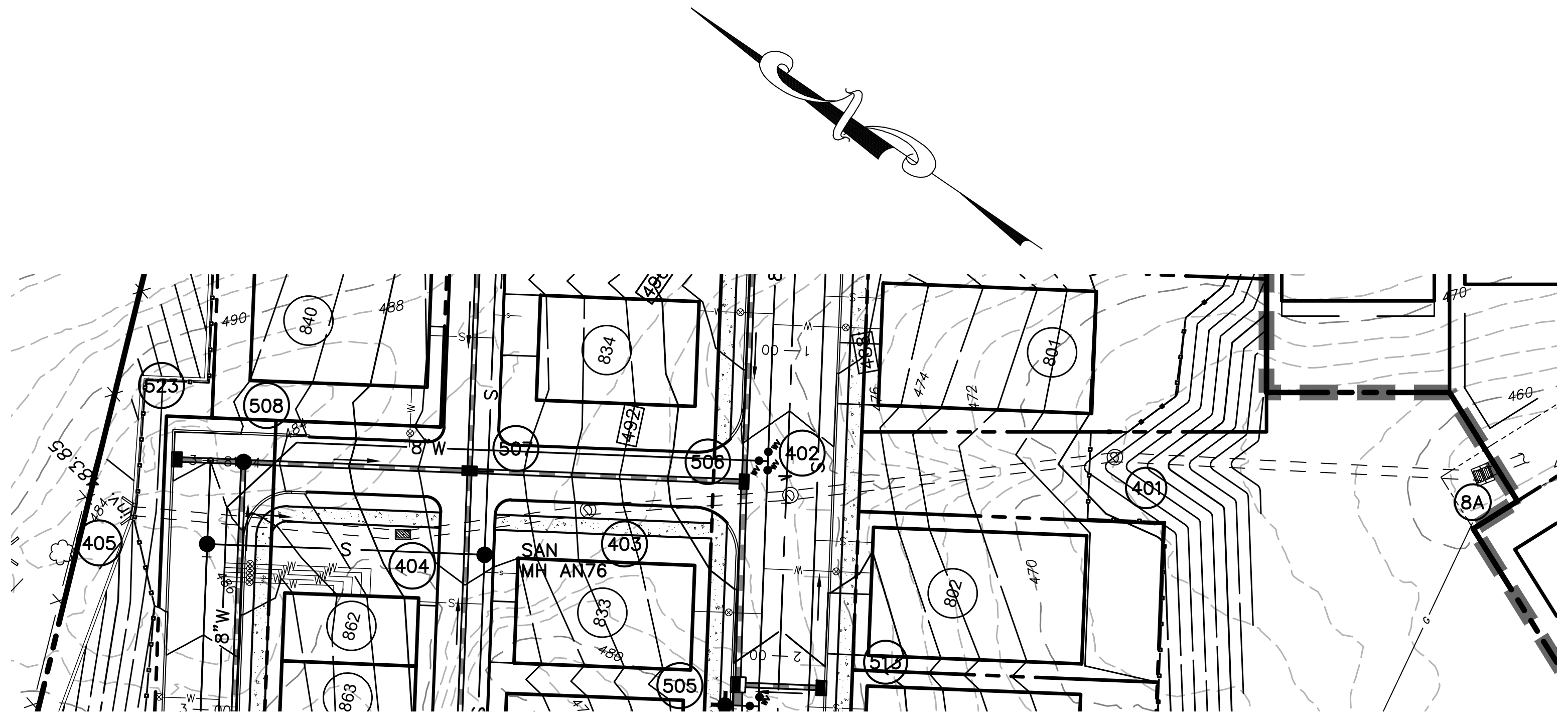
Section Number:
PF-5

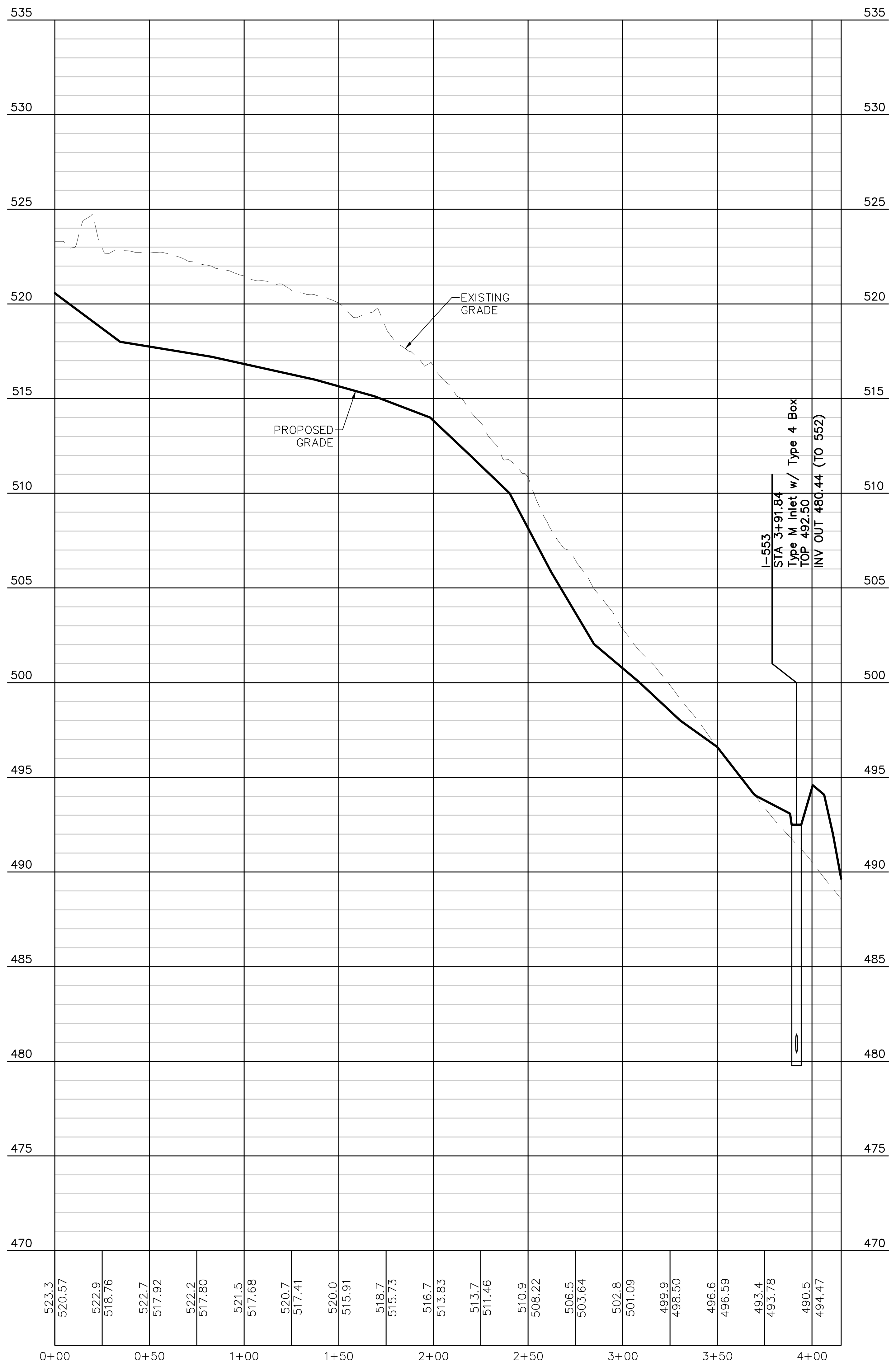
1/21/2025 12:51 PM L:\15-100-34\SHEETS\PRELIMINARY\31 PF-05.DWG

PRELIMINARY / FINAL


815
814
813
812
811
810
809
553
SWALE # 1

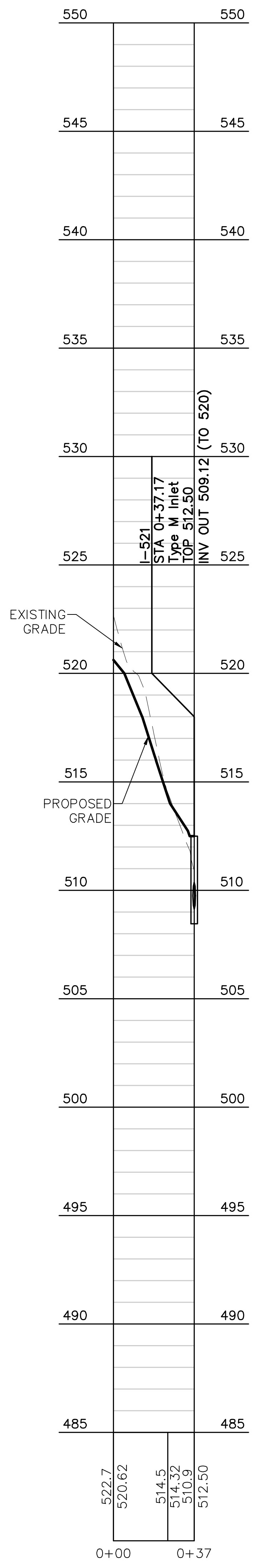

SWALE # 2
SWALE # 3
856
857
858
859
860
861
824
521
520
514
513
867
868
8"W
SAN


623
508
840
834
801
405
404
403
402
401
406
505
510
8A
882
883
SAN
MH AN76
8"W


EXISTING GRADE
PROPOSED GRADE
I-553
STA 3+91.84
Type M Inlet w/ Type 4 Box
TOP 492.50
INV OUT 480.44 (TO 552)
523.3 520.57
522.9 518.76
522.7 517.92
522.2 517.80
521.5 517.68
520.7 517.41
520.0 515.91
518.7 515.73
516.7 513.83
513.7 511.46
510.9 508.22
506.5 503.64
502.8 501.09
499.9 498.50
496.6 496.59
493.4 493.78
490.5 494.47
0+00
0+50
1+00
1+50
2+00
2+50
3+00
3+50
4+00

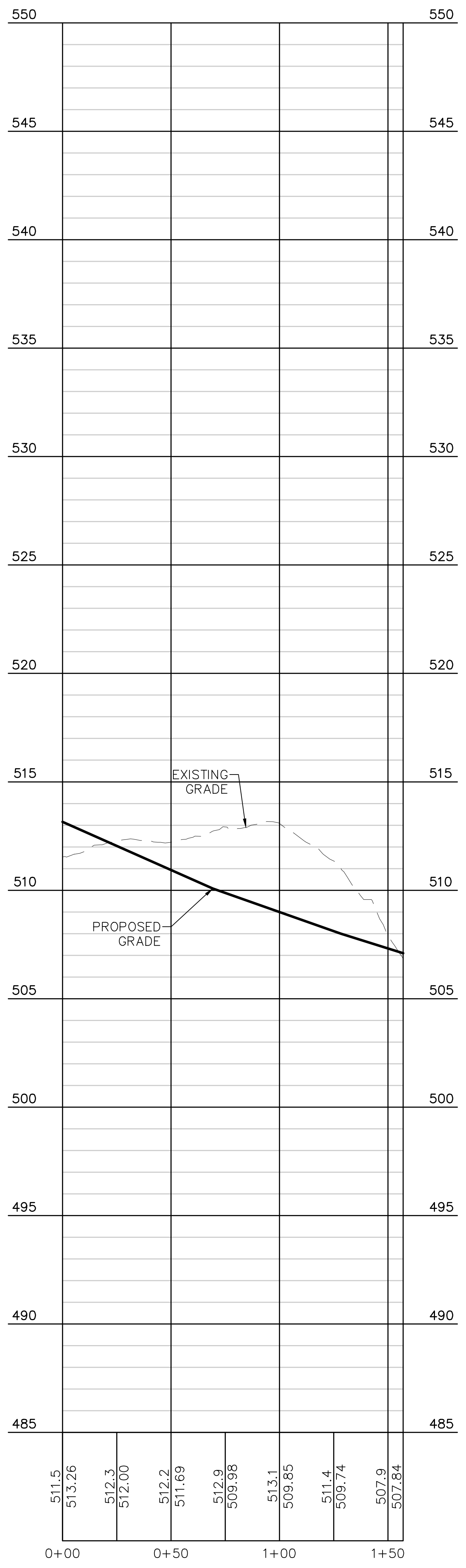
PROFILE: SWALE # 1

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


I-521
STA 0+37.17
Type M Inlet
TOP 512.50
INV OUT 509.12 (TO 520)
EXISTING GRADE
PROPOSED GRADE
522.7 520.62
514.5 514.32
510.9 512.50
0+00
0+37

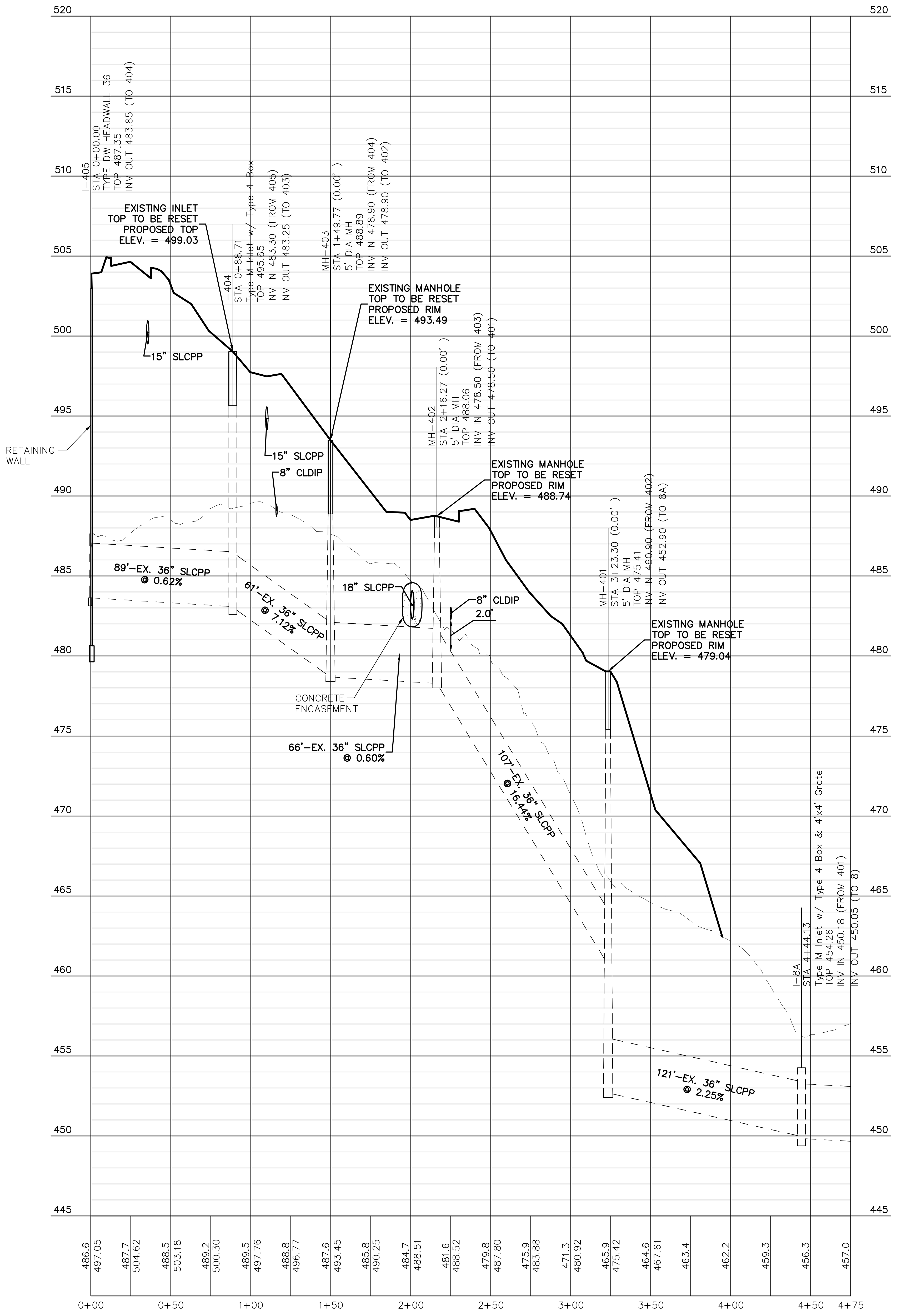
PROFILE: SWALE # 2

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


EXISTING GRADE
PROPOSED GRADE
511.5 513.26
512.3 512.00
512.2 511.69
512.9 509.98
513.1 509.85
511.4 509.74
507.9 507.84
0+00
0+50
1+00
1+50

PROFILE: SWALE # 3

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'


I-405
STA 0+00.00
TYPE DW HEADWALL 36
TOP 487.35
INV OUT 483.85 (TO 404)
EXISTING INLET TOP TO BE RESET PROPOSED TOP ELEV. = 499.03
I-404
STA 0+88.71
Type M Inlet w/ Type 4 Box
TOP 495.65
INV IN 483.30 (FROM 405)
INV OUT 483.25 (TO 403)
MH-403
STA 1+49.77 (0.00')
5' DIA MH
TOP 488.89
INV IN 478.90 (FROM 404)
INV OUT 478.90 (TO 402)
EXISTING MANHOLE TOP TO BE RESET PROPOSED RIM ELEV. = 493.49
MH-402
STA 2+16.27 (0.00')
5' DIA MH
TOP 488.06
INV IN 478.50 (FROM 403)
INV OUT 478.50 (TO 401)
EXISTING MANHOLE TOP TO BE RESET PROPOSED RIM ELEV. = 488.74
MH-401
STA 3+23.30 (0.00')
5' DIA MH
TOP 475.41
INV IN 460.90 (FROM 402)
INV OUT 452.90 (TO 8A)
EXISTING MANHOLE TOP TO BE RESET PROPOSED RIM ELEV. = 479.04
I-8A
STA 4+44.13
Type M Inlet w/ Type 4 Box & 4'x4' Grate
TOP 454.26
INV IN 450.18 (FROM 401)
INV OUT 450.05 (TO 8)
15" SLCPP
15" SLCPP
8" CLDIP
RETAINING WALL
89'-EX. 36" SLCPP @ 0.62%
61'-EX. 36" SLCPP @ 7.12%
18" SLCPP
8" CLDIP
2.0'
CONCRETE ENCASEMENT
66'-EX. 36" SLCPP @ 0.60%
107'-EX. 36" SLCPP @ 16.44%
121'-EX. 36" SLCPP @ 2.25%
486.6 497.05
487.7 504.62
488.5 503.18
489.2 500.30
489.5 497.76
488.8 496.77
487.6 493.45
485.8 490.25
484.7 488.51
481.6 488.52
479.8 487.80
475.9 483.88
471.3 480.92
465.9 475.42
464.6 467.61
463.4
462.2
459.3
456.3
457.0
0+00
0+50
1+00
1+50
2+00
2+50
3+00
3+50
4+00
4+50
4+75

PROFILE: EX I-405 TO EX I-8A

SCALE HORZ.: 1" = 50' VERT.: 1" = 5'

Sheet Number:
32 of 40

Project Number:
15-100-34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

PLAN & PROFILE – SWALES & EXISTING STORM SEWER

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: 1"=50'

0 25 50 100 150

Seal:
G. MITCHELL KING
ENGINEER
No. PE36683-E
1/7/25

TOWNE SQUARE ENGINEERING

313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538

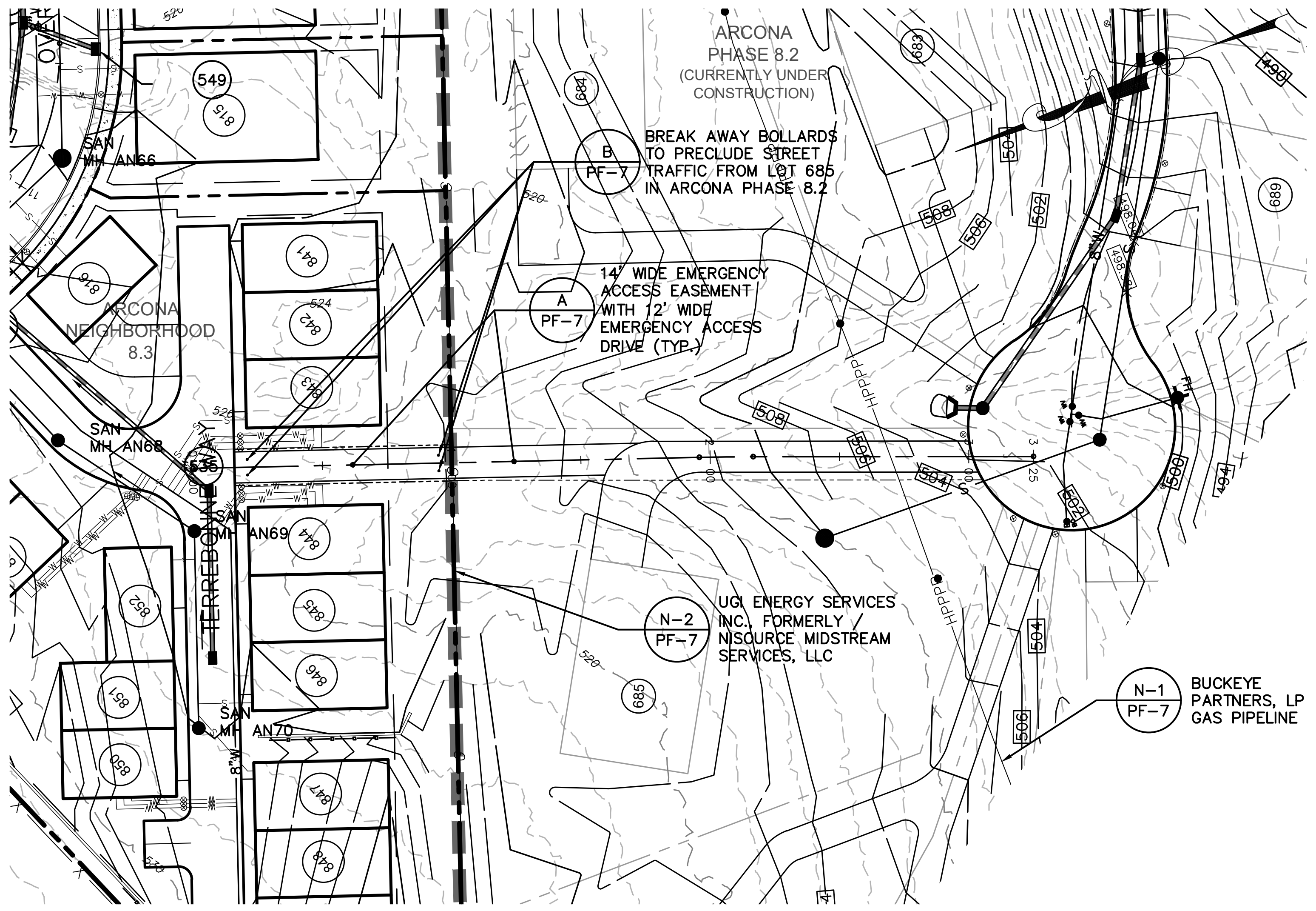
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
PF-6

1/21/2025 12:52 PM L:\15-100-34\SHEETS\PRELIMINARY\32 PF-06.DWG

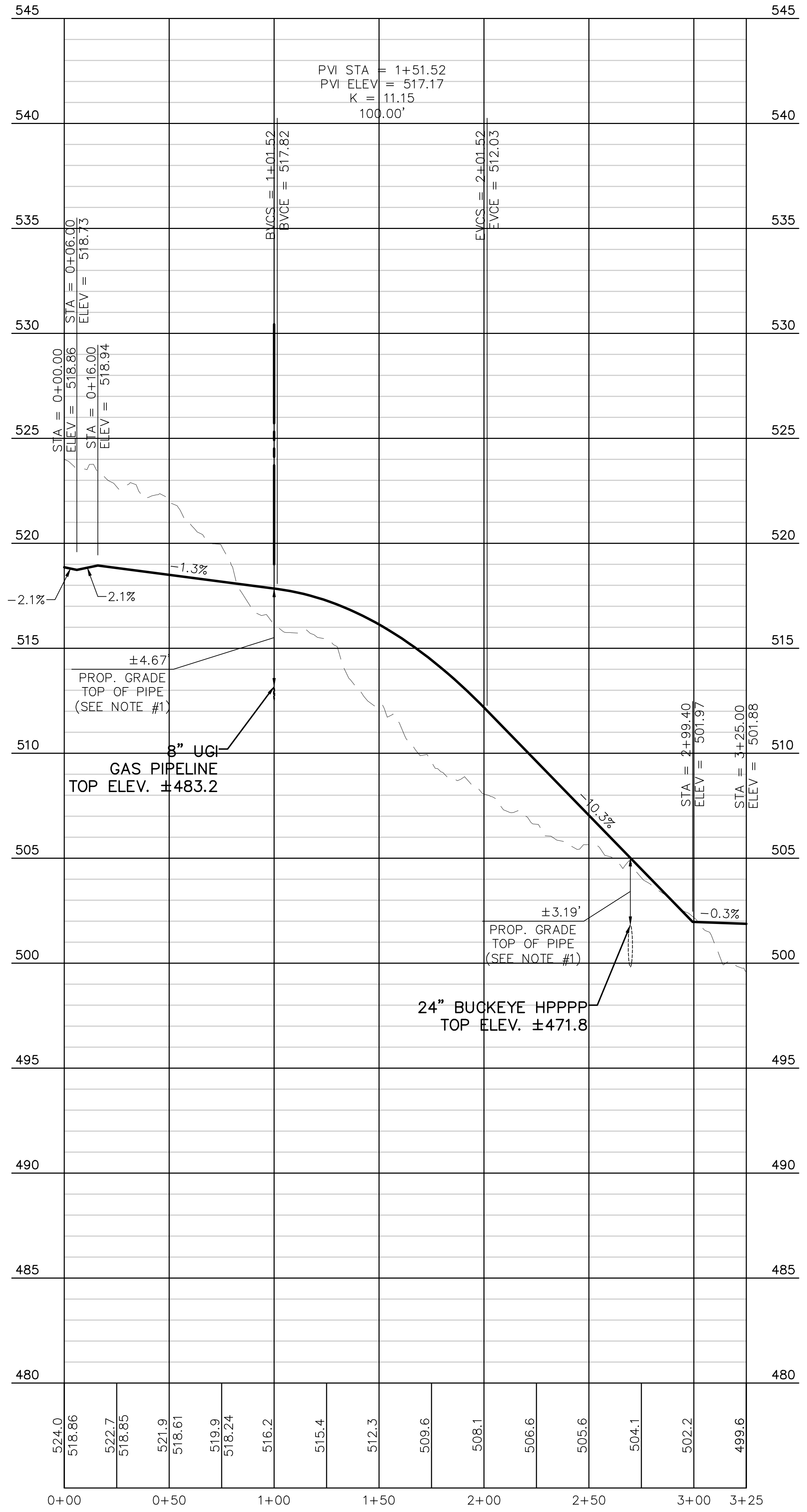
PRELIMINARY / FINAL


ARCONA
PHASE 8.2
(CURRENTLY UNDER CONSTRUCTION)
B PF-7 BREAK AWAY BOLLARDS TO PRECLUDE STREET TRAFFIC FROM LOT 685 IN ARCONA PHASE 8.2
A PF-7 14' WIDE EMERGENCY ACCESS EASEMENT WITH 12' WIDE EMERGENCY ACCESS DRIVE (TYP.)
ARCONA NEIGHBORHOOD 8.3
SAN MH AN66
SAN MH AN68
SAN MH AN69
SAN MH AN70
TERREBONNE
N-2 PF-7 UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICES, LLC
N-1 PF-7 BUCKEYE PARTNERS, LP GAS PIPELINE
549
815
816
841
842
843
844
845
846
847
848
850
851
852
683
684
685
689
HPPPP
520
524
526
508
506
504
502
500
498
494
490

PLAN: EMERGENCY ACCESS DRIVE

NOTE:

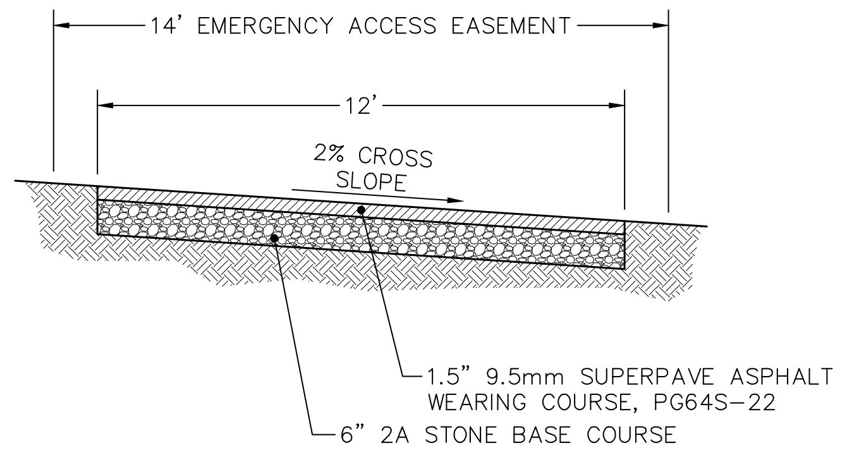
AN EMERGENCY ACCESS EASEMENT AND PARKING RESTRICTIONS WILL BE PROVIDED BY THE APPLICANT FOR LOT 685 (ARCONA 8.2)



PROFILE: EMERGENCY ACCESS DRIVE

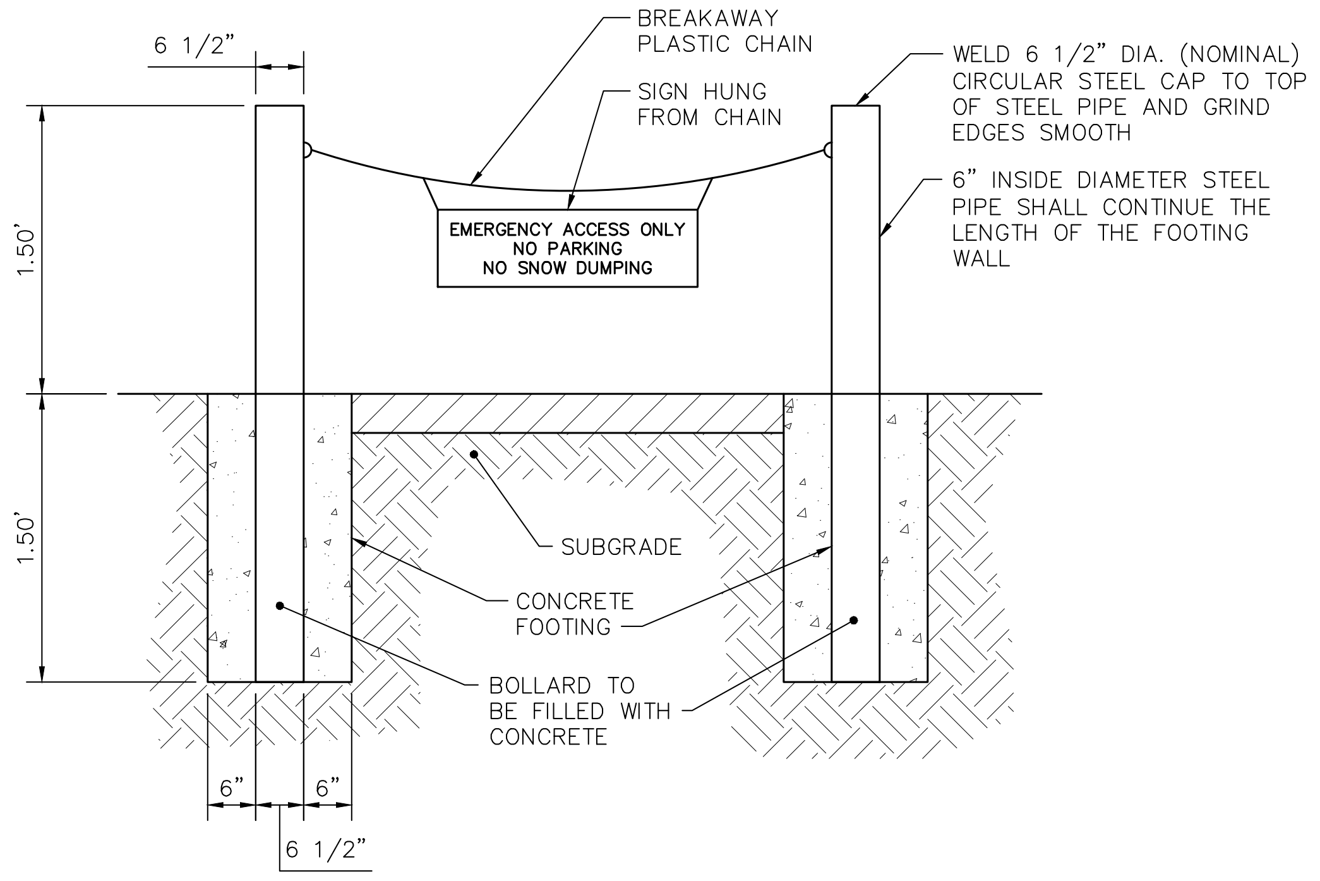
SCALE HORZ.: 1" = 50' VERT.: 1" = 5'

ALL UTILITIES MUST BE INSTALLED WITH A TWO FOOT MINIMUM SEPARATION FROM THE EXISTING UNDERGROUND GAS PIPELINES.


14' EMERGENCY ACCESS EASEMENT
12'
2% CROSS SLOPE
1.5" 9.5mm SUPERPAVE ASPHALT WEARING COURSE, PG64S-22
6" 2A STONE BASE COURSE

A PF-7 **STABILIZED EMERGENCY ACCESS CROSS SECTION**

NOT TO SCALE


6 1/2"
BREAKAWAY PLASTIC CHAIN
SIGN HUNG FROM CHAIN
EMERGENCY ACCESS ONLY
NO PARKING
NO SNOW DUMPING
WELD 6 1/2" DIA. (NOMINAL) CIRCULAR STEEL CAP TO TOP OF STEEL PIPE AND GRIND EDGES SMOOTH
6" INSIDE DIAMETER STEEL PIPE SHALL CONTINUE THE LENGTH OF THE FOOTING WALL
1.50'
1.50'
SUBGRADE
CONCRETE FOOTING
BOLLARD TO BE FILLED WITH CONCRETE
6"
6"
6 1/2"

B PF-7 **BOLLARDS AND BREAKAWAY CHAIN DETAIL**

NOT TO SCALE

(OR APPROVED EQUAL)

N-1 PF-7 BUCKEYE 24-INCH HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE EASEMENT DESCRIBED IN MISC. BOK 127, PAGE 115 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENTS GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

N-2 PF-7 UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICE, LLC EASEMENT DESCRIBED IN MISC. BOOK 81, PAGE 561 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENT GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

NOTE:

1. CONTRACTOR TO PERFORM POTHOLES AT EACH PROPOSED CROSSING OF THE UGI GAS PIPELINE AND VERIFY DEPTH TO TOP OF PIPE PRIOR TO CONSTRUCTION OF EMERGENCY ACCESS DRIVE CROSSINGS.
2. CONTRACTOR TO PROOF ROLL ENTIRE LENGTH OF EMERGENCY ACCESS DRIVE PRIOR TO COMPLETING CONSTRUCTION.
3. THE EMERGENCY ACCESS DRIVE WILL BE MAINTAINED BY THE NEIGHBORHOOD ASSOCIATION AND MUST BE PLOWED WITHIN 24 HOURS AFTER EACH SNOWFALL ENDS.

Sheet Number:
33 of 40

Project Number:
15-100-34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

PLAN & PROFILE – EMERGENCY ACCESS DRIVE

Project Manager:
DAVID B. KEGERIZE PE

Drafting:
D TURNER

Project Engineer:
G. MITCHELL KING PE, PLS

Checked by:
–

Project Surveyor:
MATTHEW D. DENNIS PE, PLS

Scale:
1"=50'

0 25 50 100 150

Seal:
G. MITCHELL KING
ENGINEER
No. PE36683-E
1/7/25

TOWNE SQUARE ENGINEERING

313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538

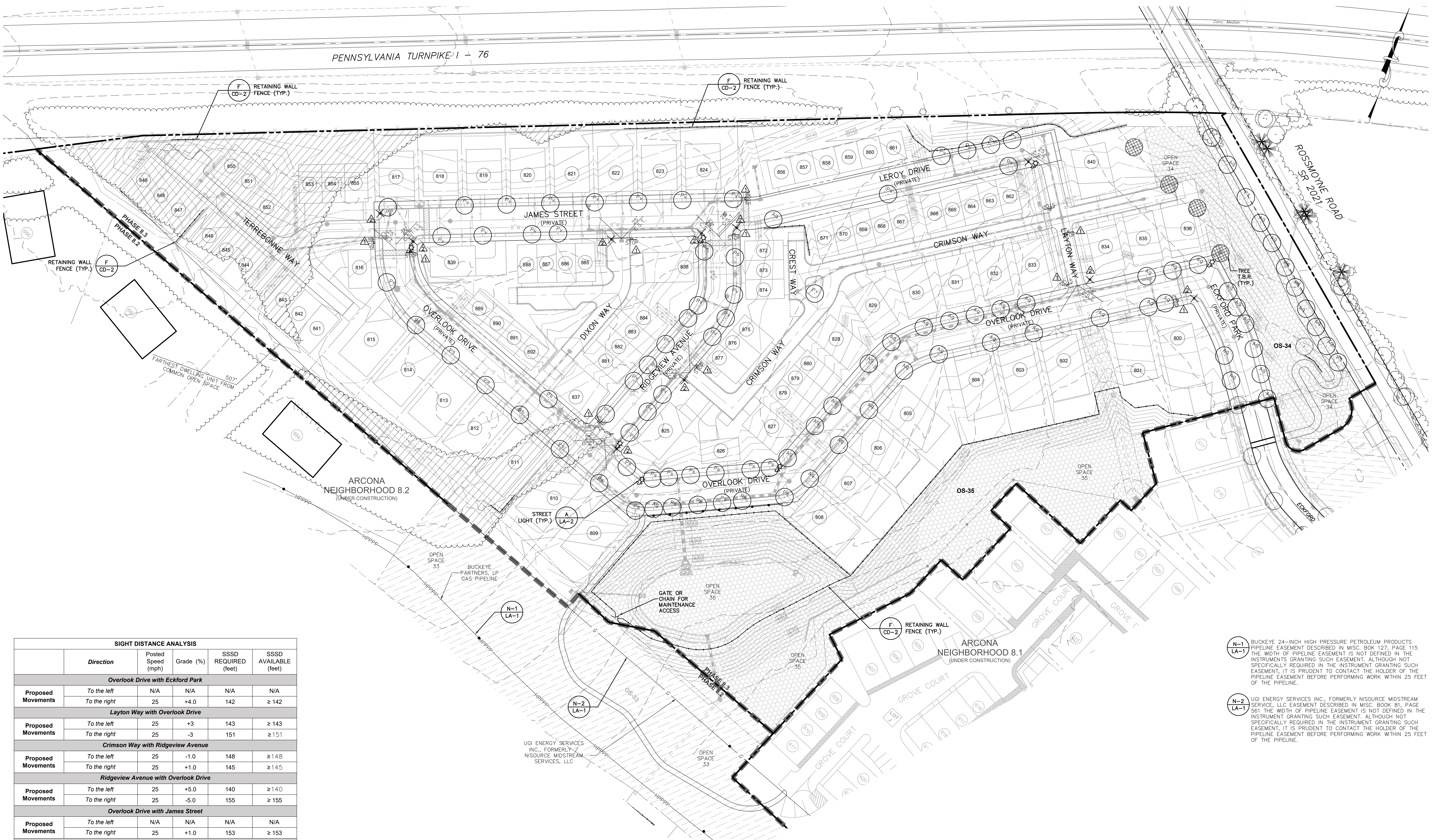
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
PF-7

PRELIMINARY / FINAL

1/22/2025 9:59 AM L:\15-100-34\SHEETS\PRELIMINARY\33 PF-07.DWG


PENNSYLVANIA TURNPIKE I - 76
ROSSMOYNE ROAD SR 2021
F CD-2 RETAINING WALL FENCE (TYP.)
JAMES STREET (PRIVATE)
LEROY DRIVE (PRIVATE)
CRIMSON WAY
LAYTON WAY
OVERLOOK DRIVE (PRIVATE)
ECKFORD PARK (PRIVATE)
TERREBONNE WAY
DIXON WAY
RIDGEVIEW AVENUE (PRIVATE)
CREST WAY
TREE T.B.R. (TYP.)
OPEN SPACE 34
OS-34
OS-35
OPEN SPACE 35
OPEN SPACE 33
OS-33
GATE OR CHAIN FOR MAINTENANCE ACCESS
STREET LIGHT (TYP.) A LA-2
ARCONA NEIGHBORHOOD 8.2 (UNDER CONSTRUCTION)
ARCONA NEIGHBORHOOD 8.1 (UNDER CONSTRUCTION)
PHASE 8.3
PHASE 8.2
FARTHEST DWELLING UNIT FROM COMMON OPEN SPACE 507'
BUCKEYE PARTNERS, LP GAS PIPELINE
UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICES, LLC
N-1 LA-1
N-2 LA-1
GROVE COURT
ECKFORD
Conc. Median

SIGHT DISTANCE ANALYSIS					
	Direction	Posted Speed (mph)	Grade (%)	SSSD REQUIRED (feet)	SSSD AVAILABLE (feet)
Overlook Drive with Eckford Park					
Proposed Movements	*To the left*	N/A	N/A	N/A	N/A
	To the right	25	+4.0	142	≥ 142
Layton Way with Overlook Drive					
Proposed Movements	*To the left*	25	+3	143	≥ 143
	To the right	25	-3	151	≥151
Crimson Way with Ridgeview Avenue					
Proposed Movements	*To the left*	25	-1.0	148	≥148
	To the right	25	+1.0	145	≥145
Ridgeview Avenue with Overlook Drive					
Proposed Movements	*To the left*	25	+5.0	140	≥140
	To the right	25	-5.0	155	≥ 155
Overlook Drive with James Street					
Proposed Movements	*To the left*	N/A	N/A	N/A	N/A
	To the right	25	+1.0	153	≥ 153
Terrebonne with Overlook Drive					
Proposed Movements	*To the left*	N/A	N/A	N/A	N/A
	To the right	25	+5.0	151	≥ 151
Dixon Way with James Street					
Proposed Movements	*To the left*	25	-3.0	151	≥ 151
	To the right	25	+3.0	143	≥143
Ridgeview Avenue with James Street					
Proposed Movements	*To the left*	25	-3.0	151	≥ 151
	To the right	N/A	N/A	N/A	N/A
Leroy Drive with Ridgeview Avenue					
Proposed Movements	*To the left*	25	+3.0	143	≥143
	To the right	N/A	N/A	N/A	N/A
SIGHT DISTANCE INFORMATION USING PENNDOT FORM M-950S					

LANDSCAPING REQUIREMENTS FOR ARCONA NEIGHBORHOOD 8.3		
Landscaping Requirement Description	**Street Length**	**Number of Trees**
Landscaping - Street Trees (SEC. 192-58)		
Length of Streets (1 Tree per side for each 50' of length)	2,406 L.F.	98
No. of Trees Required =		98

STREET TREES					
QUANTITY	ABBREV.	BOTANICAL NAME	COMMON NAME	MATURE SIZE	SIZE-COMMENTS
40	Ag	Amelanchier x grandiflora	Autumn Brilliance Serviceberry	20' ht 15' w	2.5" cal. B&B (S.S.)*
24	Ps	Prunus serrulata	Japanese Flowering Cherry	20' ht 20' w	5-6' B&B
34	Pv	Prunus virginia 'Shubert'	Common Choke Cherry	25' ht 20' w	2.5" cal. B&B
98	**Total**				

N-1 / LA-1: BUCKEYE 24-INCH HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE EASEMENT DESCRIBED IN MISC. BOK 127, PAGE 115 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENTS GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

N-2 / LA-1: UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICE, LLC EASEMENT DESCRIBED IN MISC. BOOK 81, PAGE 561 THE WIDTH OF PIPELINE EASEMENT IS NOT DEFINED IN THE INSTRUMENT GRANTING SUCH EASEMENT. ALTHOUGH NOT SPECIFICALLY REQUIRED IN THE INSTRUMENT GRANTING SUCH EASEMENT, IT IS PRUDENT TO CONTACT THE HOLDER OF THE PIPELINE EASEMENT BEFORE PERFORMING WORK WITHIN 25 FEET OF THE PIPELINE.

LEGEND

	DESCRIPTION	MUTCD #
△1	STOP SIGN	– R1–1
△2 ✕	STREET NAME	
△3	NO PARKING THIS SDIE	– R7–13M
25' C.S.T.	25' CLEAR SIGHT TRIANGLE	

OPEN SPACE LANDSCAPING

▨	EXISTING LANDSCAPE/LAWN
⬡	PROPOSED LANDSCAPE/LAWN
▨	TREELINE TO BE REMOVED

Sheet Number: 34 of 40

Project Number: 15–100–34

Date: APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

LANDSCAPING PLAN

Project Manager: DAVID B. KEGERIZE PE

Drafting: D TURNER

Project Engineer: G. MITCHELL KING PE, PLS

Checked by: –

Project Surveyor: MATTHEW D. DENNIS PE, PLS

Scale: 1"=50'

0 25 50 100 150

Seal:

TOWNE SQUARE ENGINEERING

313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538

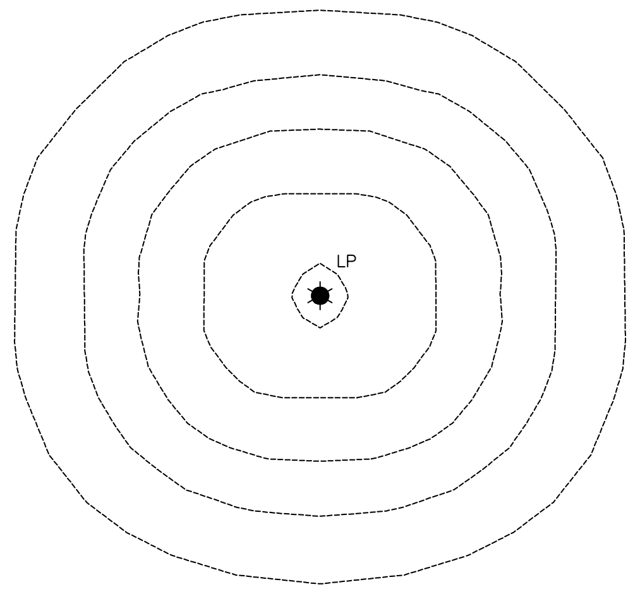
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

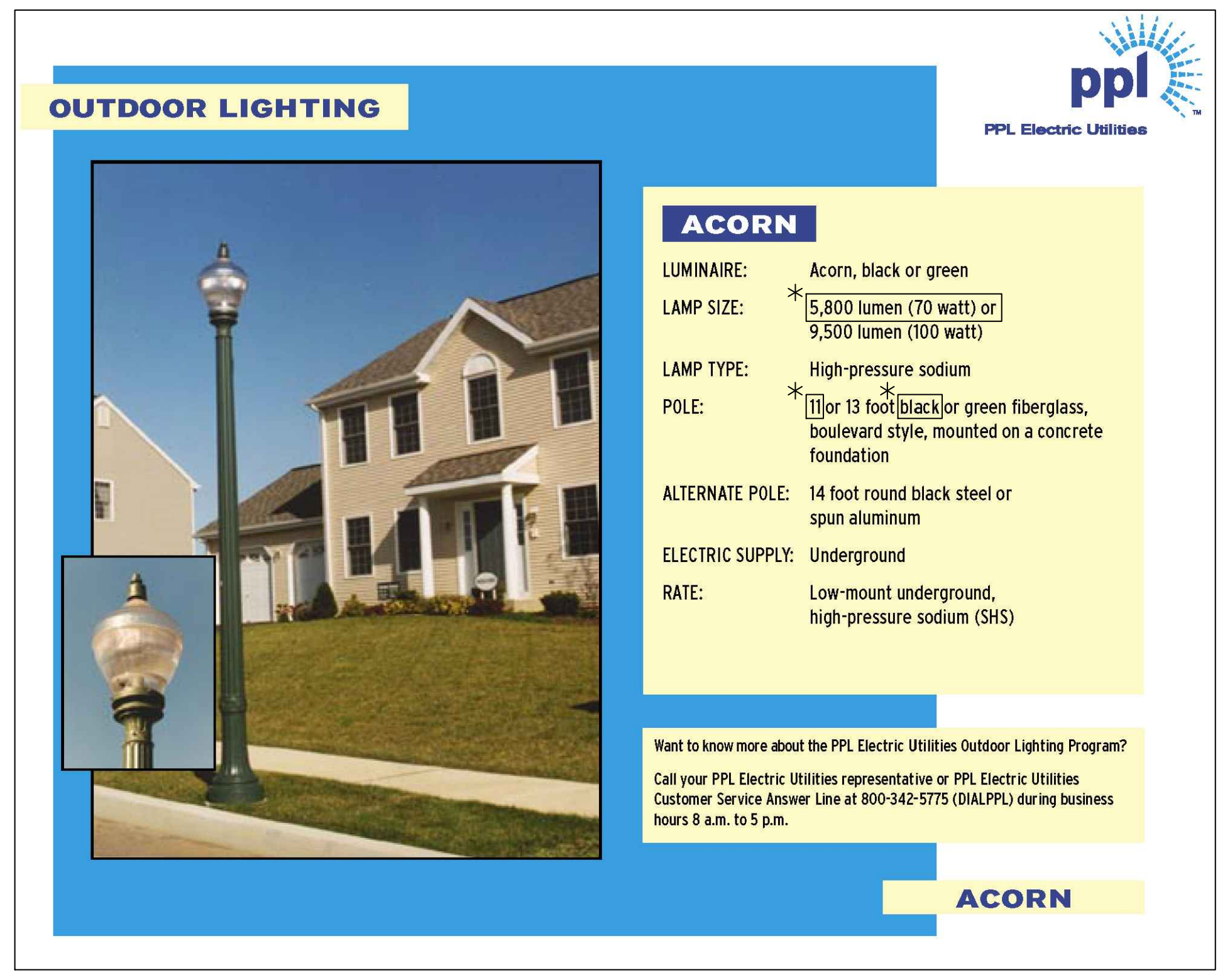
Section Number: LA–1

3/7/2025 4:06 PM L:\15–100–34\SHEETS\PRELIMINARY\34 LA–01.DWG

PRELIMINARY / FINAL



ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE
POLE HEIGHT – 11'
NOT TO SCALE


OUTDOOR LIGHTING

ppl
PPL Electric Utilities

ACORN

LUMINAIRE:	Acorn, black or green
LAMP SIZE:	* 5,800 lumen (70 watt) or 9,500 lumen (100 watt)
LAMP TYPE:	High-pressure sodium
POLE:	* 11 or 13 foot * black or green fiberglass, boulevard style, mounted on a concrete foundation
ALTERNATE POLE:	14 foot round black steel or spun aluminum
ELECTRIC SUPPLY:	Underground
RATE:	Low-mount underground, high-pressure sodium (SHS)

Want to know more about the PPL Electric Utilities Outdoor Lighting Program?

Call your PPL Electric Utilities representative or PPL Electric Utilities Customer Service Answer Line at 800-342-5775 (DIALPPL) during business hours 8 a.m. to 5 p.m.

ACORN

- LAMP SIZE: 5,800 LUMEN (70 WATT)
- POLE HEIGHT: 11'
- POLE COLOR: BLACK

A / LA–2 **TYPICAL LIGHT - ACORN / PPL**
NOT TO SCALE

NOTE:

STREET LIGHT FIXTURES SHALL MEET LAMP AND WIRING STANDARDS ESTABLISHED BY PPL.

(SEE DETAIL A/LA–2)

LANDSCAPE NOTES FOR ARCONA PHASE 8.3:

1. The landscaping, screening, buffering, street trees, street lights, outdoor lighting, neighborhood entry monuments and other amenities depicted on this Landscaping Plan are intended to demonstrate material compliance with Lower Allen Zoning Ordinance §220–200, §220–201, §220–202 and Lower Allen Subdivision & Land Development Ordinance §192–58 and §192–63 C and to serve as a general guide. All locations shown are approximate and will be subject to adjustments and modifications by Applicant to fit actual site conditions, resolve additional conflicts (especially with utilities), and to improve design and aesthetics. Specific locations, species, and other specifics may be altered and/or substituted provided that the minimum requirements of applicable ordinances are still met. Any alteration and/or substitution to this Landscaping Plan that does not comply with the minimum requirements of applicable ordinances shall not be made unless all applicable waivers, modification or variances are obtained from the Board or Commissioners or Zoning Hearing Board, as applicable. Lower Allen Township reserves the right to inspect construction to verify compliance with Township ordinances and the intent of this Landscape Plan.

2. Applicant shall be required to meet the minimum total number of street trees required per this plan albeit in differing locations for necessary and permitted adjustments.

3. The precise locations and geometrical layout of walking trails ("trail") as depicted on this Landscaping Plan will be altered by Applicant to fit actual site conditions, resolve additional conflicts (especially with utilities), and to improve design and aesthetics. However, the point(s) of origin(s) and terminus(es) as well as the overall length of the trail(s) shall remain materially the same. The width and construction specification (material/surface, depth of pavement) of the trail(s) shall not be altered. The Applicant hereby grants an easement for public access over all trails shown on this plan. Each trail shall be a hard surface, and shall be not less than six (6) feet wide.

4. Street trees shall not be planted on sanitary sewer or water laterals.

5. All underground utilities shown are approximate.

6. Contractor to field verify locations of all underground utilities prior to the start of construction.

7. Trees which have died or have become diseased or pest–ridden within 18 months from the time of planting shall be replaced by the developer.

PLANTING NOTES:

1. All trees and shrubs shall be as specified, and shall be installed in accordance with the details and comments noted on the Drawings. No plant substitutions unless approved by the owner and/or the Township.
2. The contractor shall furnish, deliver and install all plant materials. All plant materials shall have a normal habit of growth and shall be free of disease, insects or insect eggs. Plants shall conform to the American Association of Nurserymen's American Standard for Nursery Stock (latest edition).
3. Inspection of Planting Beds – The contractor shall inspect all planting areas before any top–soiling or planting is begun to insure that adequate drainage exists. If any areas to be landscaped show evidence of poor drainage, the Contractor shall notify the Owner immediately for corrective action. Any plant material that dies due to poor or inadequate drainage shall be the responsibility of the Landscape Contractor.
4. The Contractor shall notify the owner and request an approval all plant materials. If requested by owner, stake plant locations prior to installation.
5. All plant material shall be guaranteed for eighteen (18) months from the date of completion of installation.
6. Any plant material that does not survive within initial planting shall be removed and replaced within thirty (30) days during the subsequent planting season.
7. The Contractor shall maintain all plantings prior to the beginning of the guarantee period by watering, fertilizing, disease control, pruning, weeding, etc. so as to keep the completed work and/or uncompleted work in a clean and neat condition at all times. An additional maintenance period duration should be agreed to by the owner, if requested.
8. Prepare soils according to specifications and details. Remove rocks and debris.
9. Finish grade and "firm" the soil to avoid excessive settling. Caution: Avoid over compaction, minimize activities over newly cultivated soils.
10. Mulch planting beds with properly composted mulch to a depth of no more than 2". Keep mulch back 2" from the base of the trunk.
11. Pre–emergent herbicide such as "Eptam" shall be applied to all planting beds according to manufacture's recommendation (prior to placement of mulch). A second application of pre–emergent herbicide shall also be included as part of this work.
12. Street trees shall be planted in a bed of structural soil. The structural soil shall be CU–Structural Soil as supplied by an AMEREQ – licensed company. A minimum of two cubic feet of structural soil per square foot of tree crown area shall be provided. (Use ≈ 620 c.f. of CU–Soil for Autumn Brilliance Service Berry, Flowering Cherry and Choke Cherry, and ≈ 1,450 c.f. of CU–Soil for Japanese Tree Lilac).

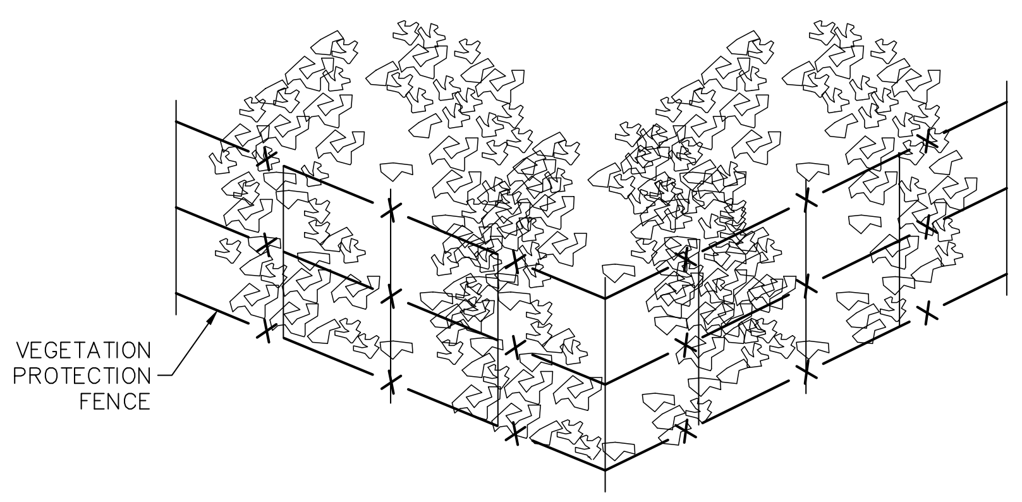
NOTES:

MATERIAL – Fence. Acceptable, undamaged, standard picket snow fence or other acceptable, highly visible, weather resistant, easily maintained fencing that provides a substantial barrier.

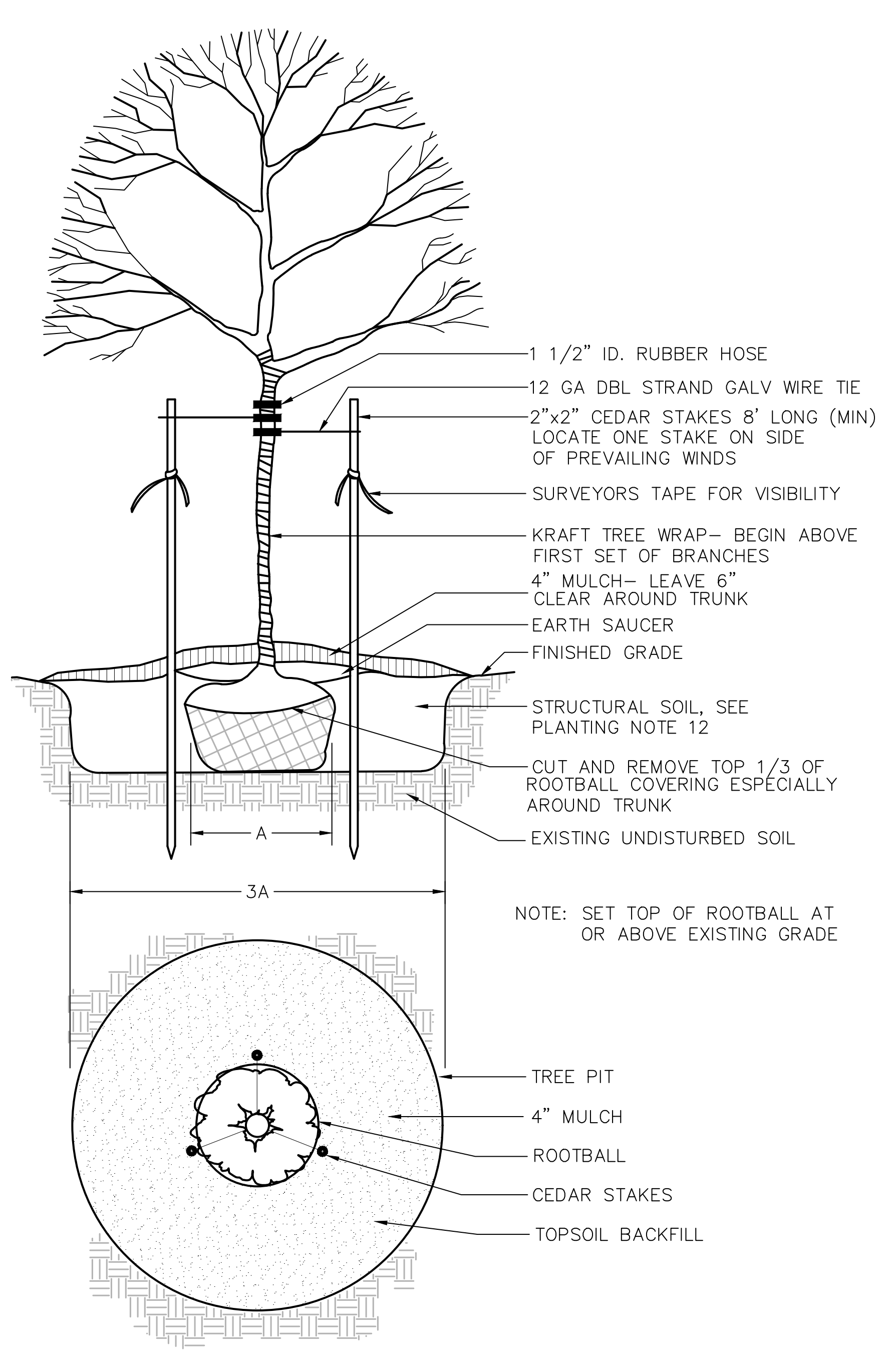
Posts. High carbon channel steel, 7'(feet) in length. Designed to drive satisfactorily into the ground and with at least 10 fence holding lugs of rivet type. Other posts may be accepted by the engineer.

CONSTRUCTION – Fence desirable wooded areas, individual trees, and shrubs designated for protection, before beginning other general project work. Where directed, fence other areas to be protected. Do not stockpile materials under, or within, protected vegetation areas. Prohibit construction traffic within protected areas. Place the fence at the drip line of trees or plants, but avoid causing root damage when driving posts. Replace damaged fence in kind within 24 hours of damage. Remove temporary protection, when directed.

A PROTECTION FENCE WILL BE SET UP AT THE DRIP LINE OF ANY WOODY VEGETATION THAT IS WITHIN 25' OF ANY IMPROVEMENTS AS SHOWN ON PLAN.



B / LA–2 **TREE PROTECTION DETAIL**
NOT TO SCALE


1 1/2" ID. RUBBER HOSE
12 GA DBL STRAND GALV WIRE TIE
2"x2" CEDAR STAKES 8' LONG (MIN) LOCATE ONE STAKE ON SIDE OF PREVAILING WINDS
SURVEYORS TAPE FOR VISIBILITY
KRAFT TREE WRAP– BEGIN ABOVE FIRST SET OF BRANCHES
4" MULCH– LEAVE 6" CLEAR AROUND TRUNK
EARTH SAUCER
FINISHED GRADE
STRUCTURAL SOIL, SEE PLANTING NOTE 12
CUT AND REMOVE TOP 1/3 OF ROOTBALL COVERING ESPECIALLY AROUND TRUNK
EXISTING UNDISTURBED SOIL
A
3A
NOTE: SET TOP OF ROOTBALL AT OR ABOVE EXISTING GRADE
TREE PIT
4" MULCH
ROOTBALL
CEDAR STAKES
TOPSOIL BACKFILL

C / LA–2 **DECIDUOUS TREE PLANTING DETAIL**
NOT TO SCALE

Sheet Number:
35 of 40

Project Number:
15–100–34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3
Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

LANDSCAPING DETAILS & NOTES

Project Manager: DAVID B. KEGERIZE PE	Drafting: D TURNER
Project Engineer: G. MITCHELL KING PE, PLS	Checked by: –
Project Surveyor: MATTHEW D. DENNIS PE, PLS	Scale: 1"=50'

0 25 50 100 150

Seal:

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
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Section Number:
LA–2

PRELIMINARY / FINAL

1/21/2025 12:50 PM L:\15–100–34\SHEETS\PRELIMINARY\35 LA–02.DWG

EROSION & SEDIMENTATION CONTROL PLANS

ARCONA NEIGHBORHOOD 8.3

Know what's **below.**
Call before you dig.

Before You Dig Anywhere

In... PENNSYLVANIA

STOP! CALL 811 (or 1–800–242–1776 outside of PA)
TOLL FREE

PA Act 287 (amended by Act 121 (2008)) requires notification to ONE CALL SYSTEM 3 working days for construction phase and 10 working days for design phase before you excavate.

PA ONE CALL SYSTEM, INC.

DESIGN PHASE SERIAL # 20240612619 (LOWER ALLEN TOWNSHIP)
(CALL MADE BY : Howell Kline Surveying, LLC)

Howell Kline Surveying, LLC.. does not guarantee the accuracy of the locations for existing subsurface utility lines, structures, etc. shown on the plans, nor does Howell Kline Surveying, LLC. guarantee that all subsurface utility lines, structures, etc. are shown.
Contractor shall verify the location and elevations of all subsurface utility lines, structures, etc. before the start of work, by calling the Pennsylvania One Call System at 1–800–242–1776.

Utilities Listing – Lower Allen Township

Verizon Pennsylvania Inc
1026 Hay St.
Pittsburgh, PA 15221
Contact: Deborah Barum
Email: deborah.d.delia@verizon.com

Buckeye Partners
The Buckeye Building
6161 Hamilton Blvd.
Allentown, PA 18106
Contact: Dave Jones
Email: dajones@buckeye.com

Lower Allen Township Authority
120 Limekiln Rd.
New Cumberland, PA 17070
Contact: Brian Kauffman
Email: bkauffman@latwp.org

Lower Allen Township
2233 Gettysburg Rd.
Camp Hill, PA 17011
Contact: Bryce Thompson
email: bthompson@latwp.org

Sprint
484 Williamsport Pike
PO Box 113
Martinsburg, WV 25404
Contact: Wesley Carpenter
Email: wesley.a.carpenter@tmobile.com

PPL Electric Utilities Corporation
434 Susquehanna Trl.
Northumberland, PA 17857
Contact: Doug Haupt
Email: dlhaupt@pplweb.com

Comcast Cable Communications Inc
4601 Smith Street
Harrisburg, PA 17109
Contact: Michael Sweigard
Email: m_sweigard@cable.comcast.com

Upper Allen Township
100 Gettysburg Pike
Mechanicsburg, PA 17055
Contact: Kodi Hockenberry
Email: khockenberry@uatwp.org

UGI Utilities Inc
1301 Aip Dr.
Middletown, PA 17057–5987
Contact: Stephen Bateman
Email: sbateman@ugi.com

Windstream
1450 Center Point Rd.
Hiawatha, IA 52233
Contact: Locate Desk Personnel
Email: locate.desk@windstream.com

Centurylink
1025 Eldorado Blvd.
Broomfield, CO 80021
Contact: Century Link Operator Personnel
Email: relocations@lumen.com

Firsst Energy Penelec
21 S Main St.
Akron OH, 44308
Contact: Cara Warren
Email: carawarren@firstenergycorp.com

SUEZ Water Pennsylvania Inc
6310 Allentown Blvd.
Harrisburg, PA 17112
Contact: Nat Sheffer
Email: nathaniel.sheffer@suez.com

Pennsylvania American Water
852 Wesley Dr
Mechanicsburg, PA 17055
Contact: Jeff Horton
Email: jeff.horton@amwater.com

GEOLOGIC EVALUATION:

by ARM Group, Inc.

SUMMARY

- According to the Pennsylvania Department of Conservation and Natural Resources online Geologic Data Exploration application (PaGEODE), the site in underlain by the Epler Formation, Hamburg sequence rocks, Hershey Formation and the Myerstown Formation. The Epler Formation consists of a very crystalline, medium–gray limestone interbedded with gray dolomite that is moderately weathered to a shallow depth. The Hamburg sequence rocks are transported rocks of the Hamburg overthrust; gray, greenish–gray and maroon shale, which are silty and siliceous in many areas; dark gray impure sandstone; medium to light–gray finely crystalline limestone and shaly limestone. The Hershey Formation consists of dark–gray to black, argillaceous limestone. The characterization of the Myerstown Formation is medium to dark–gray, medium–crystalline limestone with dark gray to black carbonaceous limestone at the base.
- Review of the Sinkholes and Karst–Related Features of Cumberland County, Pennsylvania, (W.E. Kochanov, 1989), there are multiple closed depressions mapped within common geologic formations within 2,000 feet of the site, but no sinkholes are mapped within the site boundary.
- The site reconnaissance and infiltration testing performed by ARM Group, Inc. personnel revealed no closed depressions, topographic lineaments or fracture traces, caverns, intermittent lakes, ephemeral streams, or other carbonate geology hazards.

RECOMMENDATIONS

- Based on the test results, the typical measured infiltration capacity of the site soils across the site ranged from approximately 0 (no measurable infiltration capacity over a period of more than 2.5 hours) to 2.2 in/hr; these consistent results suggest very low potential infiltration capacity across the site, and are consistent with the clayey soils encountered.
- Additionally, based on ARM's filed observations and other available information, concentrated stormwater infiltration is acceptable, but sinkhole avoidance and mitigation measures should be observed and incorporated into the design and construction of the project. Please refer to the "Design and Construction Recommendations" section of the ARM report.
- ARM has determined that the site is situated within a karst area, which is potentially subject to the development of sinkholes. As presented in the ARM Group, Inc. Report, Figure 1, at least a dozen closed depressions were previously mapped by Kochanov around the site, in the same geologic formations. While no existing sinkholes, closed depressions or other carbonate geology hazards were visually observed at the existing ground surface by ARM within the investigation area, and were not identified through a review of available aerial photographs and topographic maps, the soil and rock conditions encountered are considered to present a risk for sinkhole development. Concentrated stormwater infiltration would potentially increase the risk for sinkhole development at the site, stormwater management systems should be constructed using appropriate sinkhole mitigation and/or stabilization methods to minimize the potential for sinkhole development.

EQUITABLE OWNER / DEVELOPER (ARCONA NEIGHBORHOOD 8.3):

Charter Homes Development Company
322 North Arch Street
Lancaster, PA 17603

OWNER / DEVELOPER (ARCONA NEIGHBORHOOD 8.2):

Charter Homes at Arcona Inc.
322 North Arch Street
Lancaster, PA 17603

SOURCE OF TITLE:

Tax Map 13–10–0256–032
Inst. No.: 202301420

OWNER (ARCONA NEIGHBORHOOD 8, LOT 8A)

Ruth D. Lesher
1340 Rossmoyne Road
Mechanicsburg, PA 17055

SOURCE OF TITLE:

Tax Map 13–10–0256–226
Inst. No.: 201729508 (1/2 interest)

OWNER (ARCONA NEIGHBORHOOD 8, LOT 8A)

Strong & Detweiler Partnership
1340 Rossmoyne Road
Mechanicsburg, PA 17055

SOURCE OF TITLE:

Tax Map 13–10–0256–226
Deed Book: 274, Page 1884 (1/2 interest)

SITE ACREAGE:

ARCONA NEIGHBORHOOD 8.3 – GROSS AREA – 13.61 Ac.

ZONING:

R–2 Single–Family Residential
District (TND Overlay)

PROPOSED USE:

41 Single–Family Lots
52 Single–Family Attached Units
93 Total Units

PROPOSED WATER SERVICE:

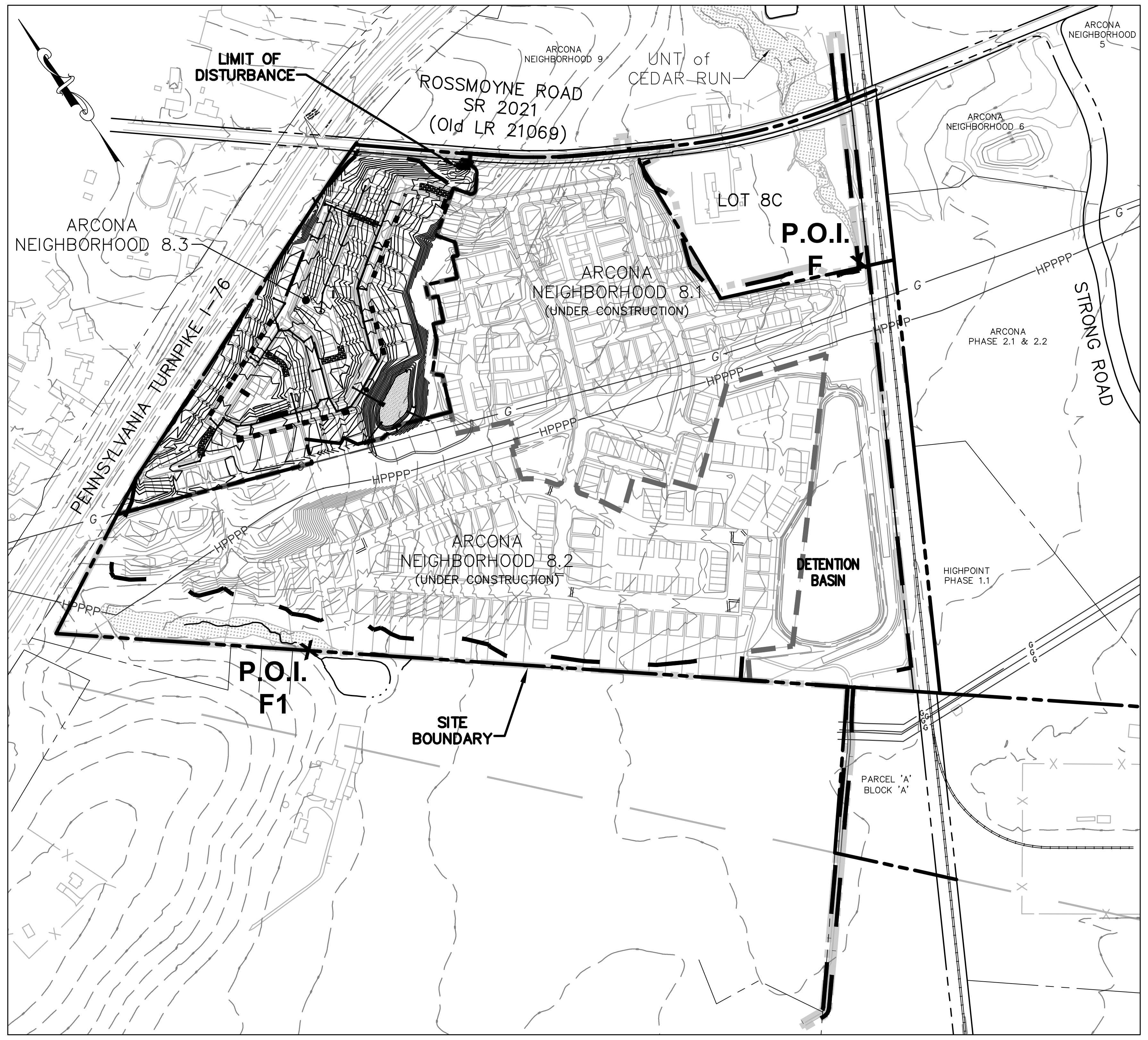
PUBLIC

PROPOSED SEWER SERVICE:

PUBLIC

NOTES:

1. LEGEND IS LOCATED ON ES–2.



PLAN: 1" = 300'

Soils Limitations & Resolutions				
Symbol	Name	Slope	Limitations	Resolution
BdC	Bedington shaly silt loam	8-15%	Dusty	Water dry disturbed areas
			Unstable excavation walls	Slope excavation walls or mechanically support
			Piping	Clay liner, water-tight pipe joints
DuA	Duffield silt loam	0-3%	High clay content	Minimize construction in this soil
				Water dry disturbed areas
			Dusty	Slope excavation wall or mechanically support
			Unstable excavation walls	
			Piping	Clay liner, water-tight pipe joints
DuB	Duffield silt loam	3-8%	High clay content	Minimize construction in this soil
				Water dry disturbed areas
			Dusty	Slope excavation wall or mechanically support
			Unstable excavation walls	
			Piping	Clay liner, water-tight pipe joints
EdB	Edom silty clay loam	3-8%	High clay content	Minimize construction in this soil
				Water dry disturbed areas
			Dusty	Slope excavation walls or mechanically support
			Unstable excavation walls	
			Piping	Clay liner, water-tight pipe joints
Pe	Penlaw silt loam	-	Depth to saturated zone	Minimize cut
			Dusty	
			Piping	Water dry disturbed areas
				Clay liner, water-tight pipe joints

This site is located on UNT to Cedar Run. Cedar Run is classified as Cold Water Fisheries (CWF).

Previous LOD	=	153.84 Ac.
Additional LOD	=	0.62 Ac.
Total LOD	=	154.46 Ac.
Site Area =		172.58 Ac.

PLAN INDEX		
NO.	SEC.	TITLE
36	ES–1	EROSION & SEDIMENTATION CONTROL – COVER
37	ES–2	EROSION & SEDIMENTATION CONTROL PLAN
38	ES–3	EROSION & SEDIMENTATION CONTROL DETAILS
39	ES–4	EROSION & SEDIMENTATION CONTROL BASIN DETAILS
40	ES–5	EROSION & SEDIMENTATION CONTROL NOTES

NPDES NARRATIVE

Charter Homes and Neighborhoods, Inc. proposes to develop 41 detached single–family lots and 52 attached single–family units in Arcona Neighborhood 8.3. Neighborhood 8 is located on a 80.96 acre tract of land. The Arcona Neighborhood 8.3 property is located on the south side of Rossmoyne Road along the south side of the Pennsylvania Turnpike. The development will be served by public sewer and water. The land is currently farmed.

Arcona Neighborhood 8.3 is a part of the master plan for a traditional neighborhood development (TND) of the Arcona Site. Storm water management for the Arcona Neighborhood 8.3 development will be provided by a regional detention basin which will collect runoff.

ESTIMATED SCHEDULE FOR PROJECT

Work Schedule:

- Start of Site Work: September 2024.
- Site Work Complete: March 2025.
- Home Construction: Q4 2024 – Q4 2026.

RECYCLING AND DISPOSAL OF BUILDING MATERIALS AND WASTES

The operator shall remove from the site, recycle, or dispose of all building materials and wastes in accordance with the department's solid waste management regulations at 25 pa. Code 260.1 et seq., 271.1 et seq., and 287.1 et seq. The contractor shall not illegally bury, dump, or discharge any building material or wastes at the site

DESIGN CONSIDERATIONS

The time and extent of earth disturbance will be limited.

- The development of the project will be phased to limit the amount of earth disturbance in any one phase.
- Earth disturbance, topsoil stripping and compaction will be limited on portions of the site. These areas will be marked with orange construction fence as a visible reminder of the areas to be preserved.

The Arcona Neighborhood 8.3 plan protects existing drainage features and vegetation.

- The existing drainageway/wetlands that run through Neighborhood 8 will be fenced to prevent disturbance.

The plans minimize soil compaction by:

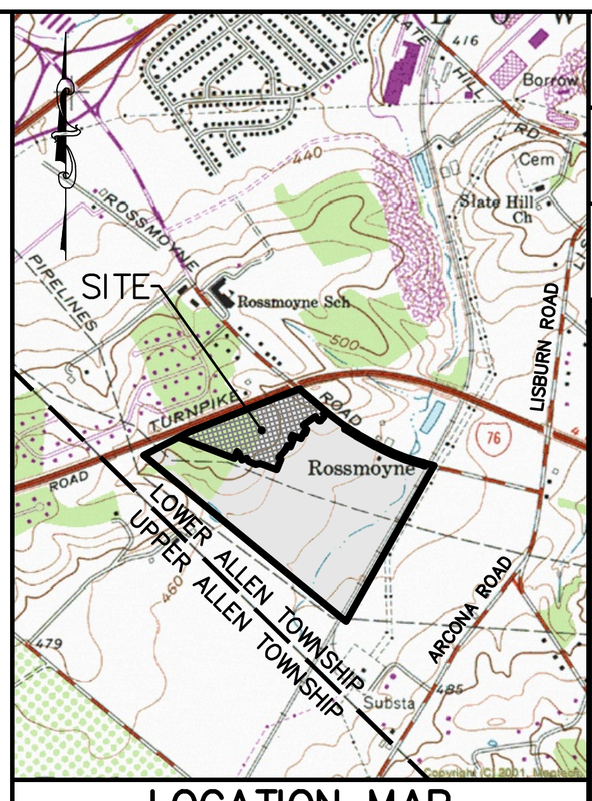
- Leaving steep slopes undisturbed.

The plans minimize generation of increased stormwater runoff by:

- Use streets with the minimum width permitted by Lower Allen Township.

THERMAL IMPACTS

A portion of the Arcona Neighborhood 8.3 will drain into the regional detention basin via a stormwater management conveyance system. The basin will contain the warmer first flush runoff from the site. The warmer first flush will either be evaporated or transpirated through the constructed wetlands in the bottom of the basin. The subsequent, cooler runoff will be filtered and cooled by the 50–foot wooded/vegetated buffer along UNT of Cedar Run before it reaches the surface waters.



LOCATION MAP
SCALE: 1" = 2000'

Sheet Number:
36 of 40

Project Number:
15–100–34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3
Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

EROSION & SEDIMENTATION CONTROL – COVER

Drafting: D TURNER
Checked by: –
Scale: 1"=300'
0 150 300 600 900
Project Manager: DAVID B. KEGERIZE PE
Project Engineer: G. MITCHELL KING PE, PLS
Project Surveyor: MATTHEW D. DENNIS PE, PLS

Seal: G. MITCHELL KING
No. PE36683-E
1/7/25

TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
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7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
ES–1

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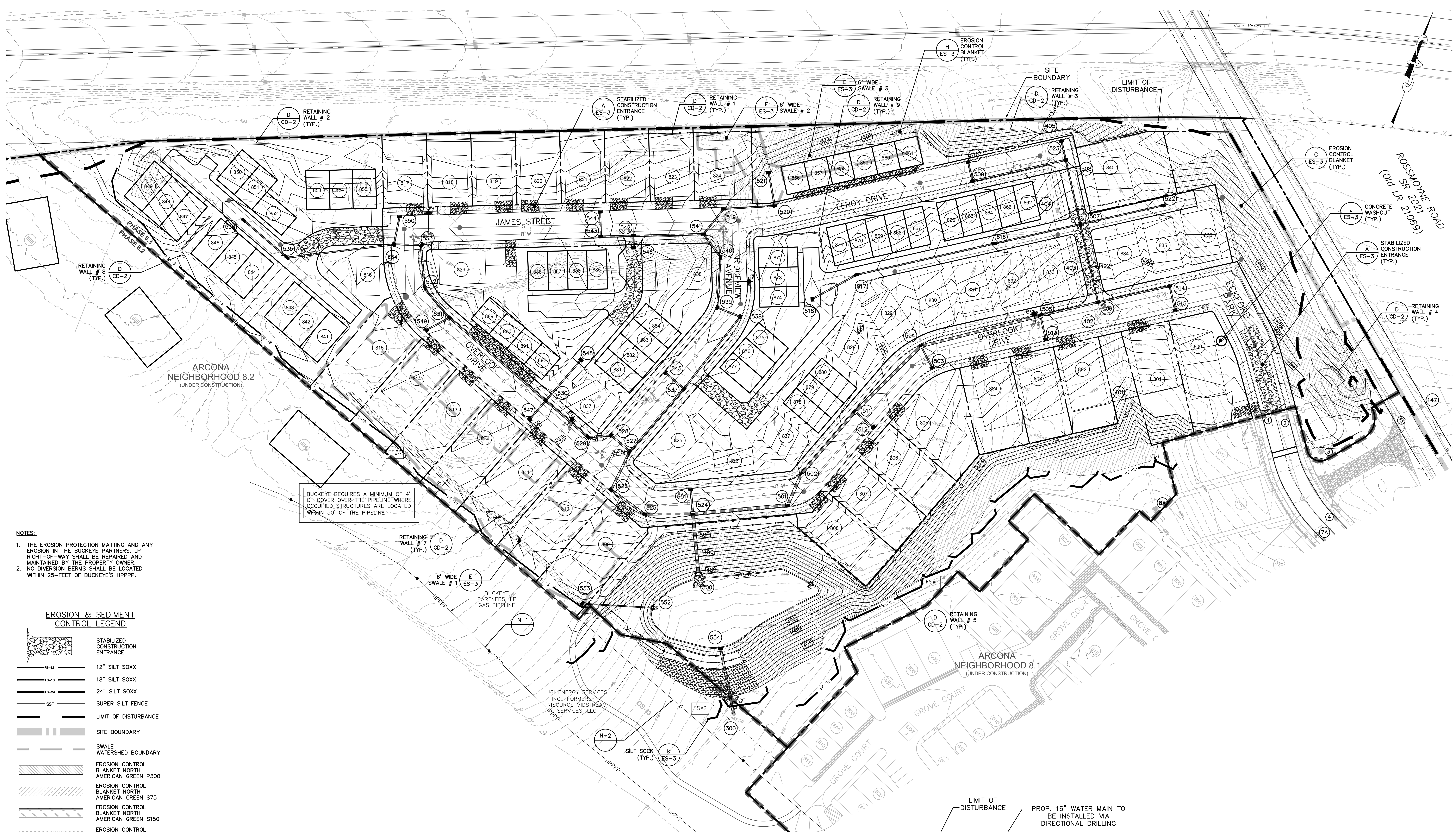
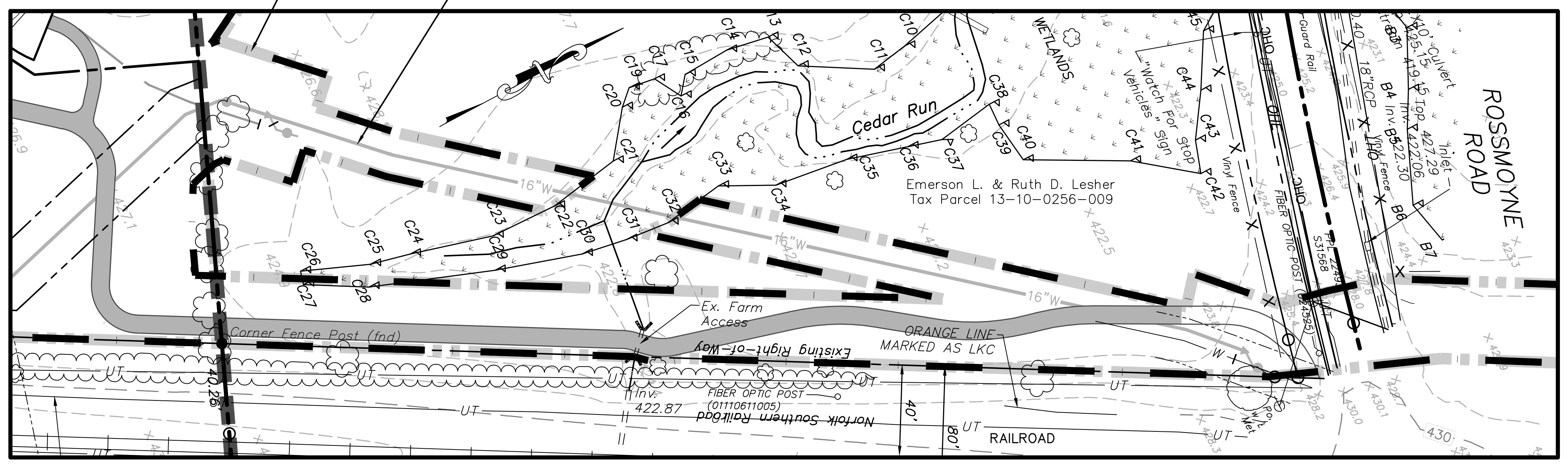
PRELIMINARY / FINAL


H ES-3 EROSION CONTROL BLANKET (TYP.)
SITE BOUNDARY
LIMIT OF DISTURBANCE
E ES-3 6' WIDE SWALE # 3
D CD-2 RETAINING WALL # 3 (TYP.)
D CD-2 RETAINING WALL # 9 (TYP.)
E ES-3 6' WIDE SWALE # 2
D CD-2 RETAINING WALL # 1 (TYP.)
A ES-3 STABILIZED CONSTRUCTION ENTRANCE (TYP.)
D CD-2 RETAINING WALL # 2 (TYP.)
D CD-2 RETAINING WALL # 8 (TYP.)
PHASE 8.3
PHASE 8.2
JAMES STREET
LEROY DRIVE
RIDGEVIEW AVENUE
OVERLOOK DRIVE
ECKFORD PARK
ROSSMOYNE ROAD SR 2021 (Old LR 21069)
G ES-3 EROSION CONTROL BLANKET (TYP.)
J ES-3 CONCRETE WASHOUT (TYP.)
A ES-3 STABILIZED CONSTRUCTION ENTRANCE (TYP.)
D CD-2 RETAINING WALL # 4 (TYP.)
Conc. Median
ARCONA NEIGHBORHOOD 8.2 (UNDER CONSTRUCTION)
BUCKEYE REQUIRES A MINIMUM OF 4' OF COVER OVER THE PIPELINE WHERE OCCUPIED STRUCTURES ARE LOCATED WITHIN 50' OF THE PIPELINE
D CD-2 RETAINING WALL # 7 (TYP.)
E ES-3 6' WIDE SWALE # 1
BUCKEYE PARTNERS, LP GAS PIPELINE
N-1
UGI ENERGY SERVICES INC., FORMERLY NISOURCE MIDSTREAM SERVICES, LLC
N-2
K ES-3 SILT SOCK (TYP.)
FS#1
FS#2
FS#3
D CD-2 RETAINING WALL # 5 (TYP.)
ARCONA NEIGHBORHOOD 8.1 (UNDER CONSTRUCTION)
GROVE COURT
HPPPP


LIMIT OF DISTURBANCE
PROP. 16" WATER MAIN TO BE INSTALLED VIA DIRECTIONAL DRILLING
Cedar Run
WETLANDS
Emerson L. & Ruth D. Lesher Tax Parcel 13-10-0256-009
"Watch For Stop Vehicles" Sign
Vinyl Fence
FIBER OPTIC POST
ROSSMOYNE ROAD
Ex. Farm Access
Corner Fence Post (fnd)
Existing Right-of-Way
ORANGE LINE MARKED AS LKC
FIBER OPTIC POST (01110611005)
Norfolk Southern Railroad
RAILROAD
40'
80'
Inv. 422.87
16"W

NOTES:

1. THE EROSION PROTECTION MATTING AND ANY EROSION IN THE BUCKEYE PARTNERS, LP RIGHT-OF-WAY SHALL BE REPAIRED AND MAINTAINED BY THE PROPERTY OWNER.
2. NO DIVERSION BERMS SHALL BE LOCATED WITHIN 25-FEET OF BUCKEYE'S HPPPP.

EROSION & SEDIMENT CONTROL LEGEND

▨	STABILIZED CONSTRUCTION ENTRANCE
—FS-12—	12" SILT SOXX
—FS-18—	18" SILT SOXX
—FS-24—	24" SILT SOXX
—SSF—	SUPER SILT FENCE
— · —	LIMIT OF DISTURBANCE
▬ ▪ ▪ ▬	SITE BOUNDARY
— — —	SWALE WATERSHED BOUNDARY
▨	EROSION CONTROL BLANKET NORTH AMERICAN GREEN P300
▨	EROSION CONTROL BLANKET NORTH AMERICAN GREEN S75
▨	EROSION CONTROL BLANKET NORTH AMERICAN GREEN S150
▨	EROSION CONTROL BLANKET NORTH AMERICAN GREEN P550
▶	RIPRAP APRON
SP	SOIL STOCKPILE
—498—	TEMPORARY GRADING
— · — · —	SOIL LINE
— — 500 — —	EXISTING INDEX CONTOUR LINE
- - - - -	EXISTING INTERMEDIATE CONTOUR LINE
—498—	PROPOSED INDEX CONTOUR LINE
—— ——	PROPOSED INTERMEDIATE CONTOUR LINE
═══	STORM SEWER
—□—□—□—	BAFFLE
—x—x—	CONSTRUCTION FENCE
▬ ▬ ▬	PHASE LINE

Sheet Number:
37 of 40
Project Number:
15-100-34
Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

EROSION & SEDIMENTATION CONTROL PLAN

Project Manager:
DAVID B. KEGERIZE PE
Project Engineer:
G. MITCHELL KING PE, PLS
Project Surveyor:
MATTHEW D. DENNIS PE, PLS
Drafting:
D TURNER
Checked by:
–
Scale:
1"=50'
0 25 50 100 150

Seal:
G. MITCHELL KING
ENGINEER
No. PE36683-E
1/7/25

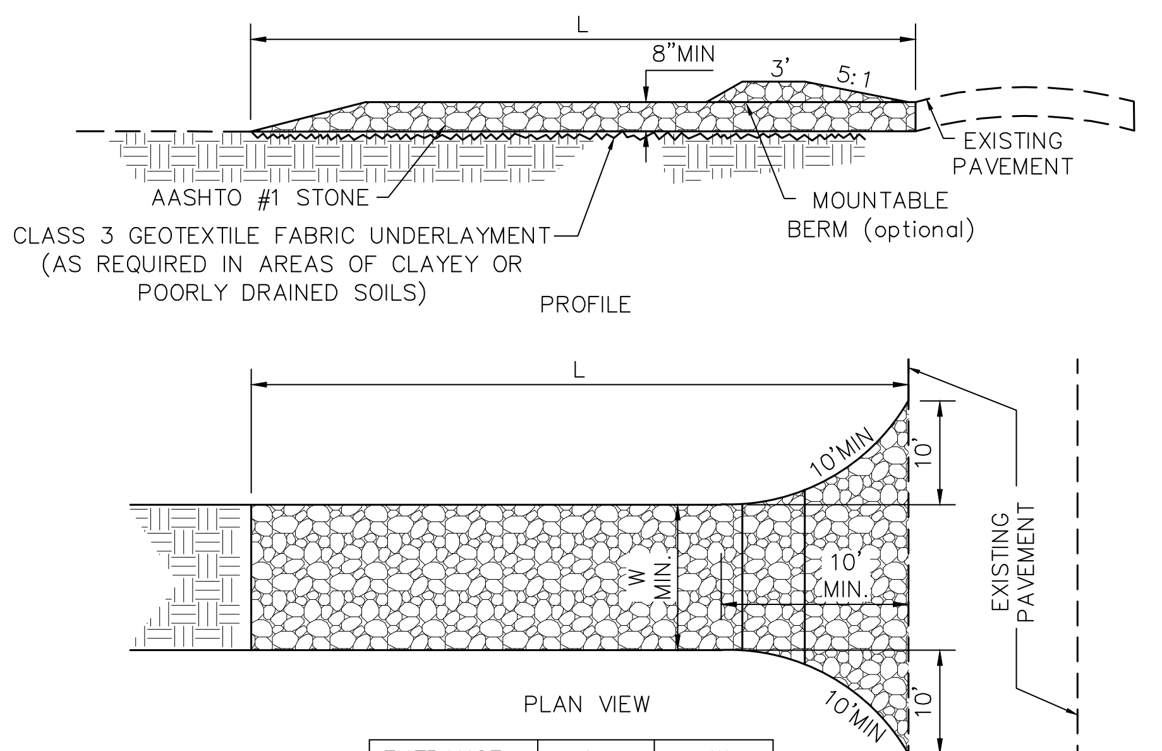
TOWNE SQUARE ENGINEERING
313 W. Liberty St.,
Suite 241
Lancaster, PA 17603
Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
ES-2

3/7/2025 4:04 PM L:\15-100-34\SHEETS\PRELIMINARY\37 ES-02.DWG

PRELIMINARY / FINAL

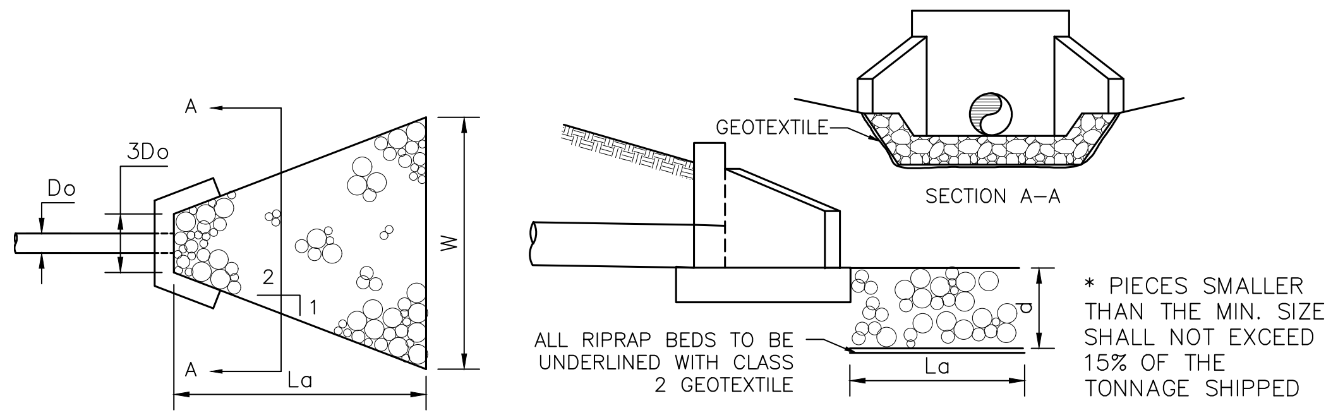

L
8"MIN
3'
5:1
EXISTING PAVEMENT
AASHTO #1 STONE
CLASS 3 GEOTEXTILE FABRIC UNDERLAYMENT (AS REQUIRED IN AREAS OF CLAYEY OR POORLY DRAINED SOILS)
MOUNTABLE BERM (optional)
PROFILE
L
10'MIN
10'
W MIN.
10' MIN.
EXISTING PAVEMENT
PLAN VIEW

ENTRANCE	L	W
MAIN	100'	20'
LOTS	30'	10'

MAINTENANCE:
THE TEMPORARY ROCK CONSTRUCTION ENTRANCE SHALL BE UTILIZED FOR CONSTRUCTION TRAFFIC THROUGHOUT THE COURSE OF CONSTRUCTION. ROCK THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. REMOVE ROCK ENTRANCE PRIOR TO PAVING.

A / ES-3 STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE


A
3Do
Do
2
1
W
A
La
GEOTEXTILE
SECTION A–A
ALL RIPRAP BEDS TO BE UNDERLINED WITH CLASS 2 GEOTEXTILE
d
La

* PIECES SMALLER THAN THE MIN. SIZE SHALL NOT EXCEED 15% OF THE TONNAGE SHIPPED

STRUCTURE	Do	RIPRAP SIZE	La	W	d
EW-500	36"	R-3	13.0'	14.2'	9"
EW-562	12"	R-3	5.0'	5.0'	9"
Roof Drain	10"	R-3	4.0'	4.1'	9"

GRADATION OF RIPRAP				
	MAX.	AVG.	MIN.*	DEPTH
R-3	6"	3"	2"	9"
R-4	12"	6"	3"	18"
R-5	18"	9"	5"	27"
R-6	24"	12"	7"	36"

B / ES-3 RIP-RAP APRON

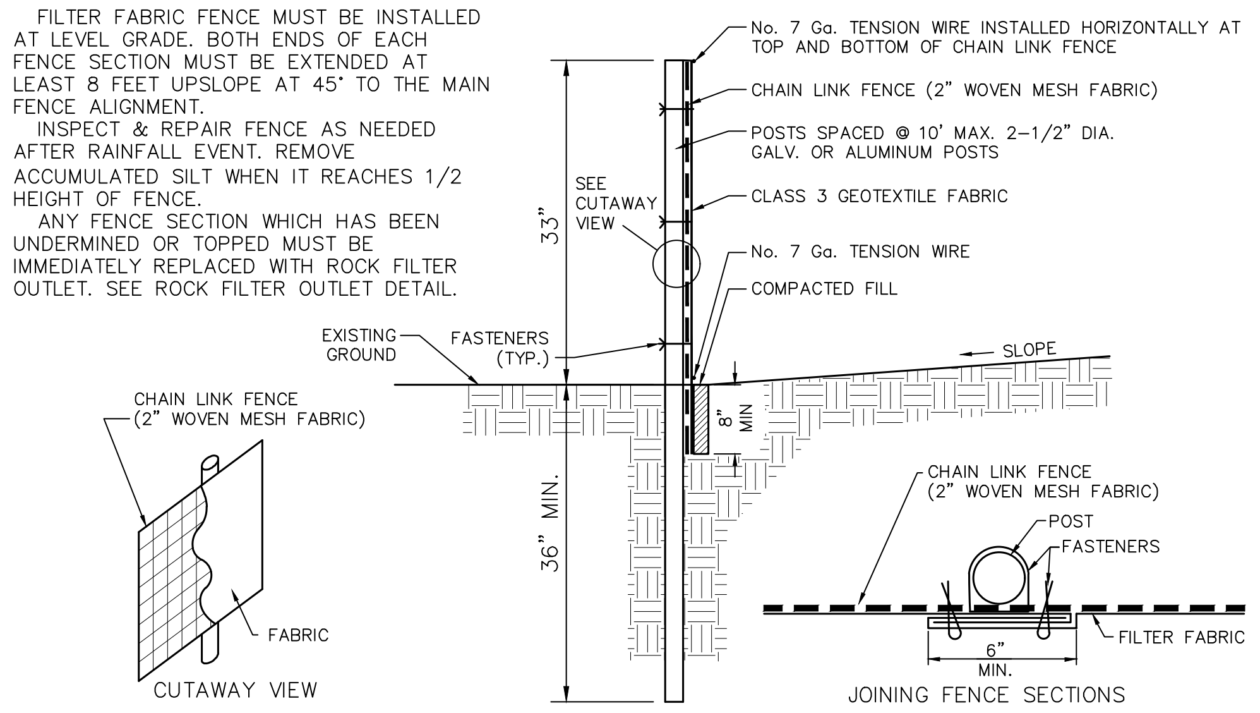
NOT TO SCALE

NOTE:

FILTER FABRIC FENCE MUST BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF EACH FENCE SECTION MUST BE EXTENDED AT LEAST 8 FEET UPSLOPE AT 45° TO THE MAIN FENCE ALIGNMENT.

INSPECT & REPAIR FENCE AS NEEDED AFTER RAINFALL EVENT. REMOVE ACCUMULATED SILT WHEN IT REACHES 1/2 HEIGHT OF FENCE.

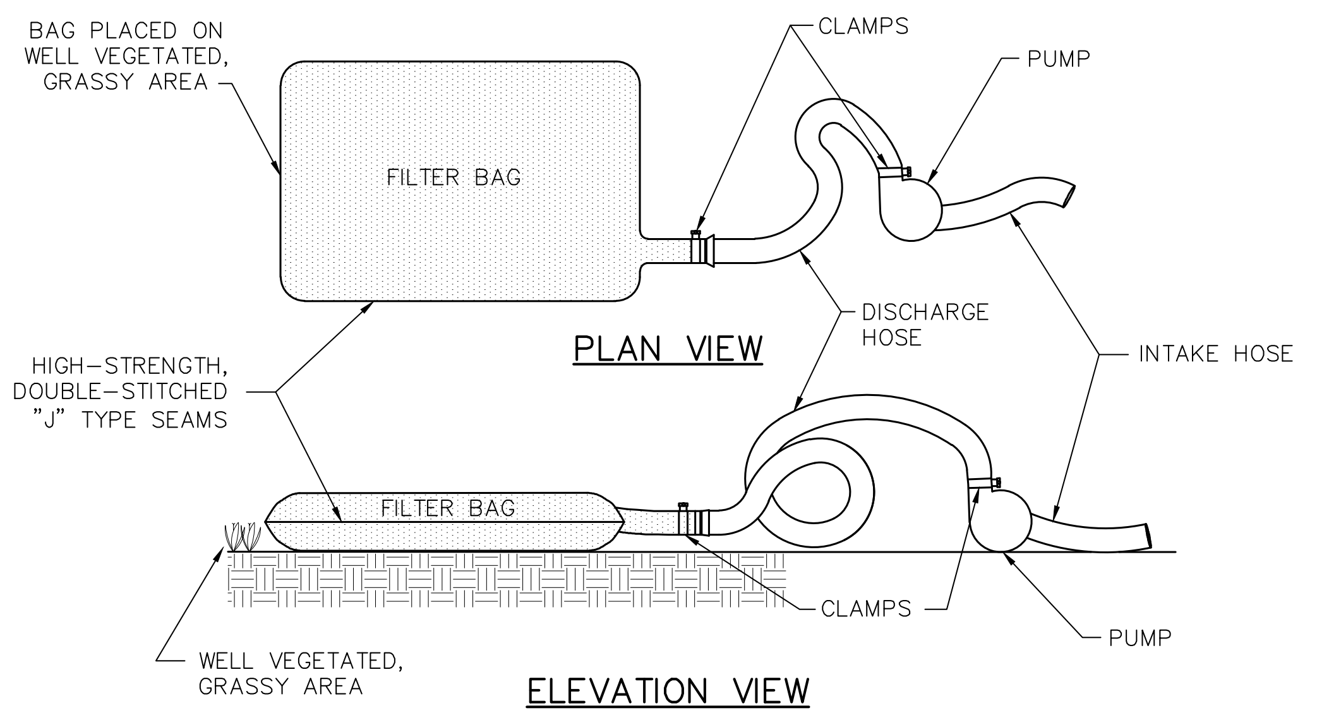
ANY FENCE SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH ROCK FILTER OUTLET. SEE ROCK FILTER OUTLET DETAIL.


No. 7 Ga. TENSION WIRE INSTALLED HORIZONTALLY AT TOP AND BOTTOM OF CHAIN LINK FENCE
CHAIN LINK FENCE (2" WOVEN MESH FABRIC)
POSTS SPACED @ 10' MAX. 2–1/2" DIA. GALV. OR ALUMINUM POSTS
CLASS 3 GEOTEXTILE FABRIC
No. 7 Ga. TENSION WIRE
COMPACTED FILL
SEE CUTAWAY VIEW
33"
EXISTING GROUND
FASTENERS (TYP.)
SLOPE
8" MIN
36" MIN.
CHAIN LINK FENCE (2" WOVEN MESH FABRIC)
FABRIC
CUTAWAY VIEW
CHAIN LINK FENCE (2" WOVEN MESH FABRIC)
POST
FASTENERS
FILTER FABRIC
6" MIN.
JOINING FENCE SECTIONS

CHAIN LINK TO POST FASTENERS SPACED @ 14" MAX. USE NO. 6 GA. ALUMINUM WIRE OR No. 9 GALVANIZED STEEL PRE FORMED CLIPS. CHAIN LINK TO TENSION WIRE FASTENERS SPACED @ 60" MAX. USE NO. 10 GA. GALVANIZED STEEL WIRE. FABRIC TO CHAIN FASTENERS SPACED @ 24" MAX. CENTER TO CENTER.

C / ES-3 SUPER FILTER FABRIC FENCE DETAIL

NOT TO SCALE

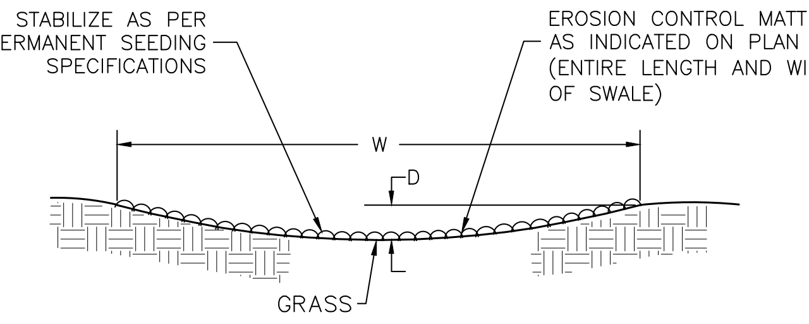

BAG PLACED ON WELL VEGETATED, GRASSY AREA
CLAMPS
PUMP
FILTER BAG
DISCHARGE HOSE
INTAKE HOSE
PLAN VIEW
HIGH–STRENGTH, DOUBLE–STITCHED "J" TYPE SEAMS
FILTER BAG
CLAMPS
PUMP
WELL VEGETATED, GRASSY AREA
ELEVATION VIEW

1. FILTER BAGS SHALL BE MADE FROM NON–WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 (HALF) FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
3. BAGS SHALL BE LOCATED IN A WELL VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.
4. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN A MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
5. THE PUMPING RATE SHALL BE NO GREATER THAN 750gpm OR 1/2 (HALF) THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
6. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

D / ES-3 PUMPED WATER FILTER BAG

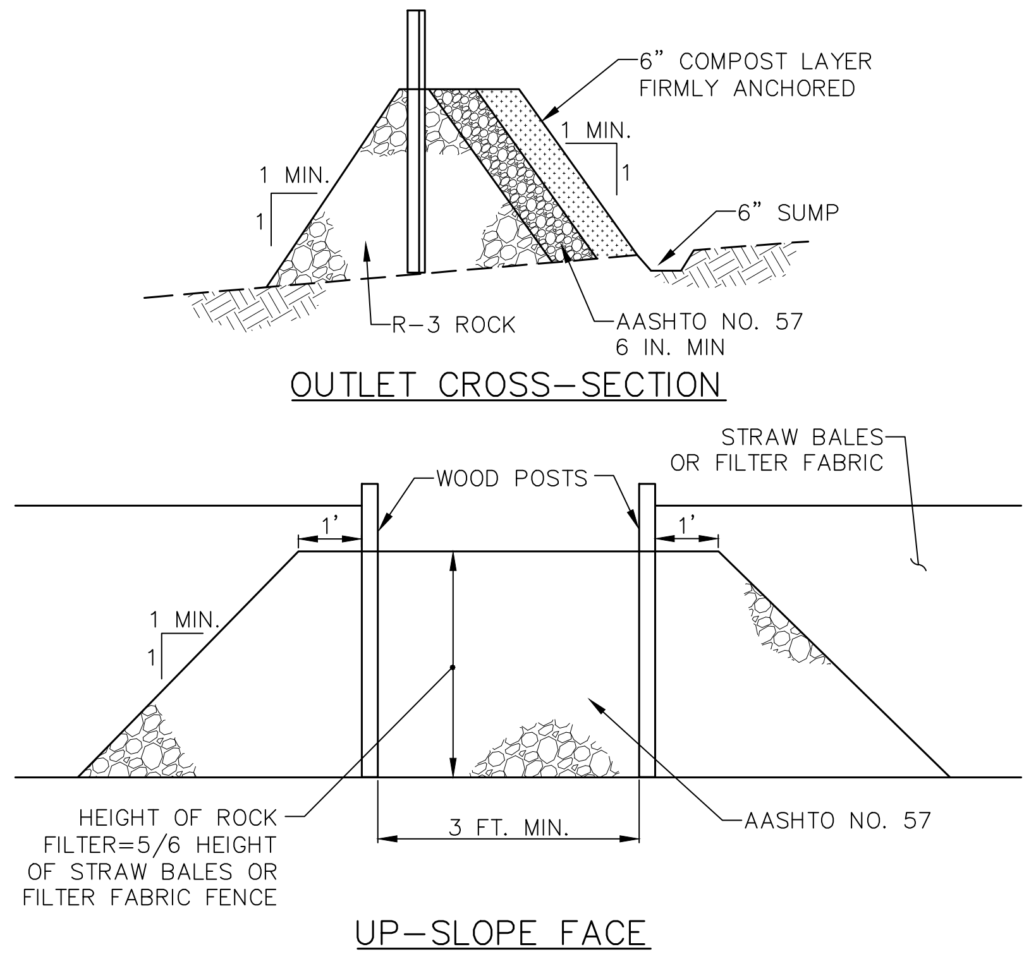
NOT TO SCALE

SWALE	W	D	MIN. SLOPE	MAX. SLOPE	EROSION CONTROL MATTING	PERMANENT STABILIZATION
1A	6'	12"	2.0%	21.1%	NAG S75	GRASS
1B	6'	12"	2.0%	21.1%	NAG P300	GRASS
2A	6'	12"	3.5%	31.9%	NAG S75	GRASS
2B	6'	12"	3.5%	31.9%	NAG P300	GRASS
3	6'	12"	3.4%	4.2%	NAG S75	GRASS


STABILIZE AS PER PERMANENT SEEDING SPECIFICATIONS
EROSION CONTROL MATTING AS INDICATED ON PLAN (ENTIRE LENGTH AND WIDTH OF SWALE)
W
D
GRASS

E / ES-3 PARABOLIC SWALE DETAIL

NOT TO SCALE


6" COMPOST LAYER FIRMLY ANCHORED
1 MIN.
1
1 MIN.
1
6" SUMP
R–3 ROCK
AASHTO NO. 57 6 IN. MIN
OUTLET CROSS–SECTION
STRAW BALES OR FILTER FABRIC
WOOD POSTS
1'
1'
1 MIN.
1
HEIGHT OF ROCK FILTER=5/6 HEIGHT OF STRAW BALES OR FILTER FABRIC FENCE
3 FT. MIN.
AASHTO NO. 57
UP–SLOPE FACE

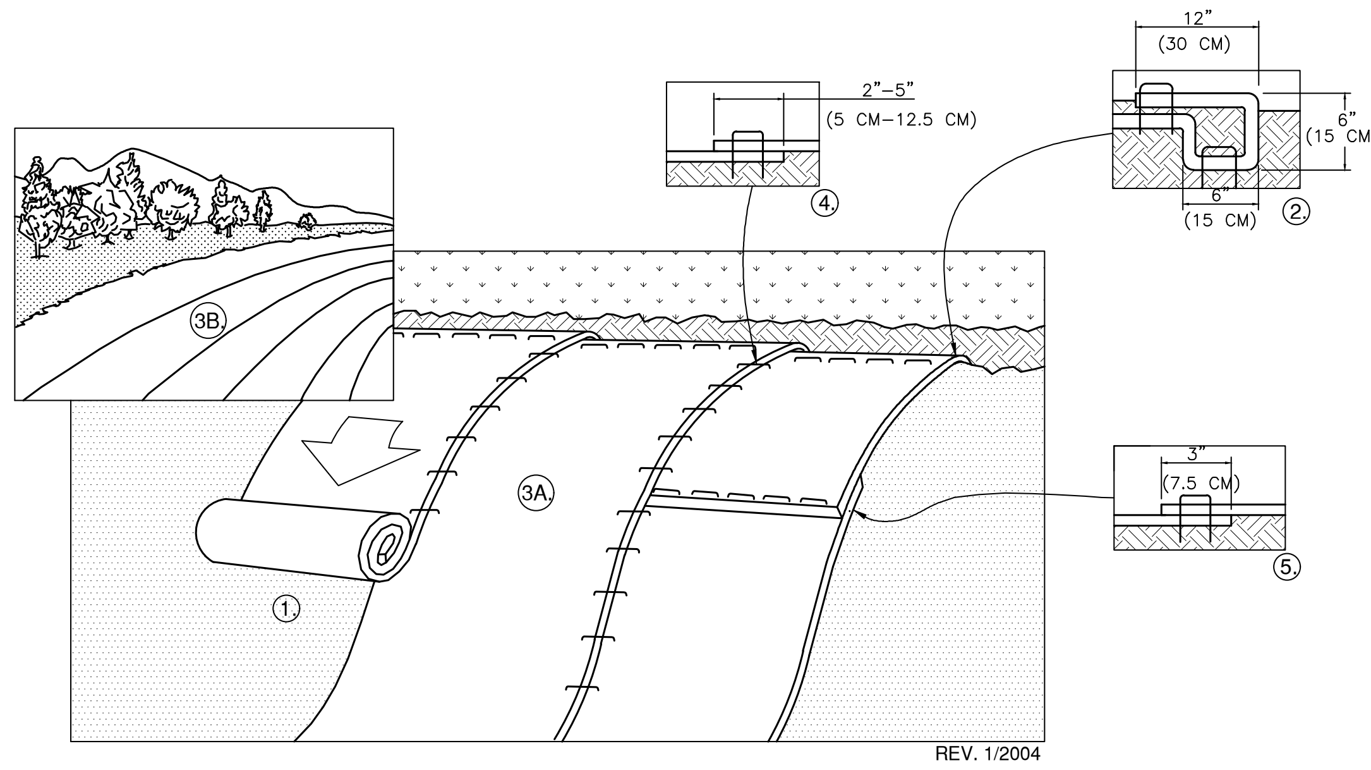
NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

F / ES-3 ROCK FILTER OUTLET DETAIL - #4-6

NOT TO SCALE


2"–5" (5 CM–12.5 CM)
④
12" (30 CM)
6" (15 CM)
6" (15 CM)
②
③B
③A
①
3" (7.5 CM)
⑤
REV. 1/2004

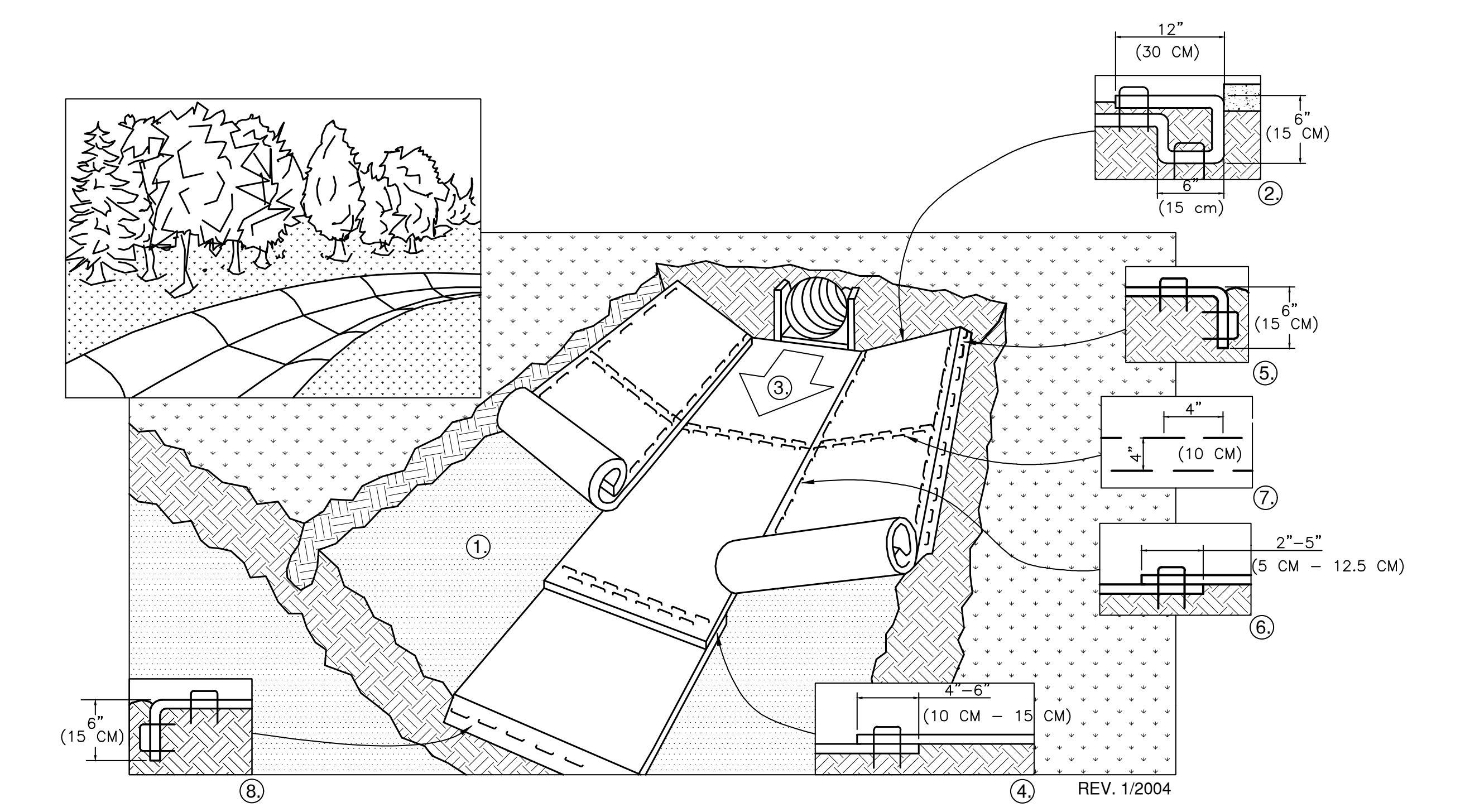
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON BLANKET TYPE.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH.

NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

DETAIL PROVIDED BY:
NORTH AMERICAN GREEN
14649 HIGHWAY 41 NORTH, EVANSVILLE, INDIANA 47725
USA 1–800–772–2040, CANADA 1–800–448–2040
www.nagreen.com

G / ES-3 NORTH AMERICAN GREEN SLOPE PROTECTION

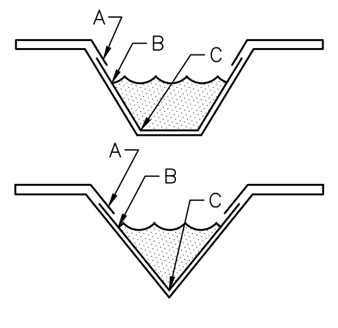
NOT TO SCALE


12" (30 CM)
6" (15 CM)
(15 cm)
②
6" (15 CM)
⑤
4" (10 CM)
⑦
2"–5" (5 CM – 12.5 CM)
⑥
③
①
6" (15 CM)
⑧
4"–6" (10 CM – 15 CM)
④
REV. 1/2004

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF BLANKET EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY™ FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4" – 6" (10 CM –15 CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2" – 5" (5 CM –12.5 CM) (DEPENDING ON BLANKET TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 M – 12 M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

NOTE:

* IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.



CRITICAL POINTS

A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

DETAIL PROVIDED BY:
NORTH AMERICAN GREEN
14649 HIGHWAY 41 NORTH,
EVANSVILLE, INDIANA 47725
USA 1–800–772–2040
CANADA 1–800–448–2040
www.nagreen.com

APPLIES TO S150 AND P300

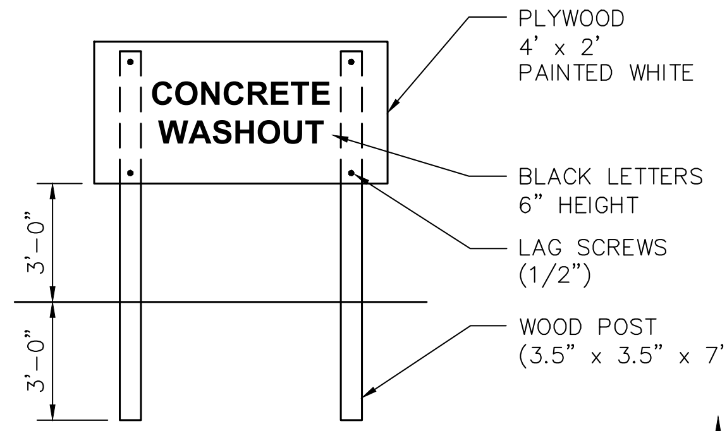
NOTE:

* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

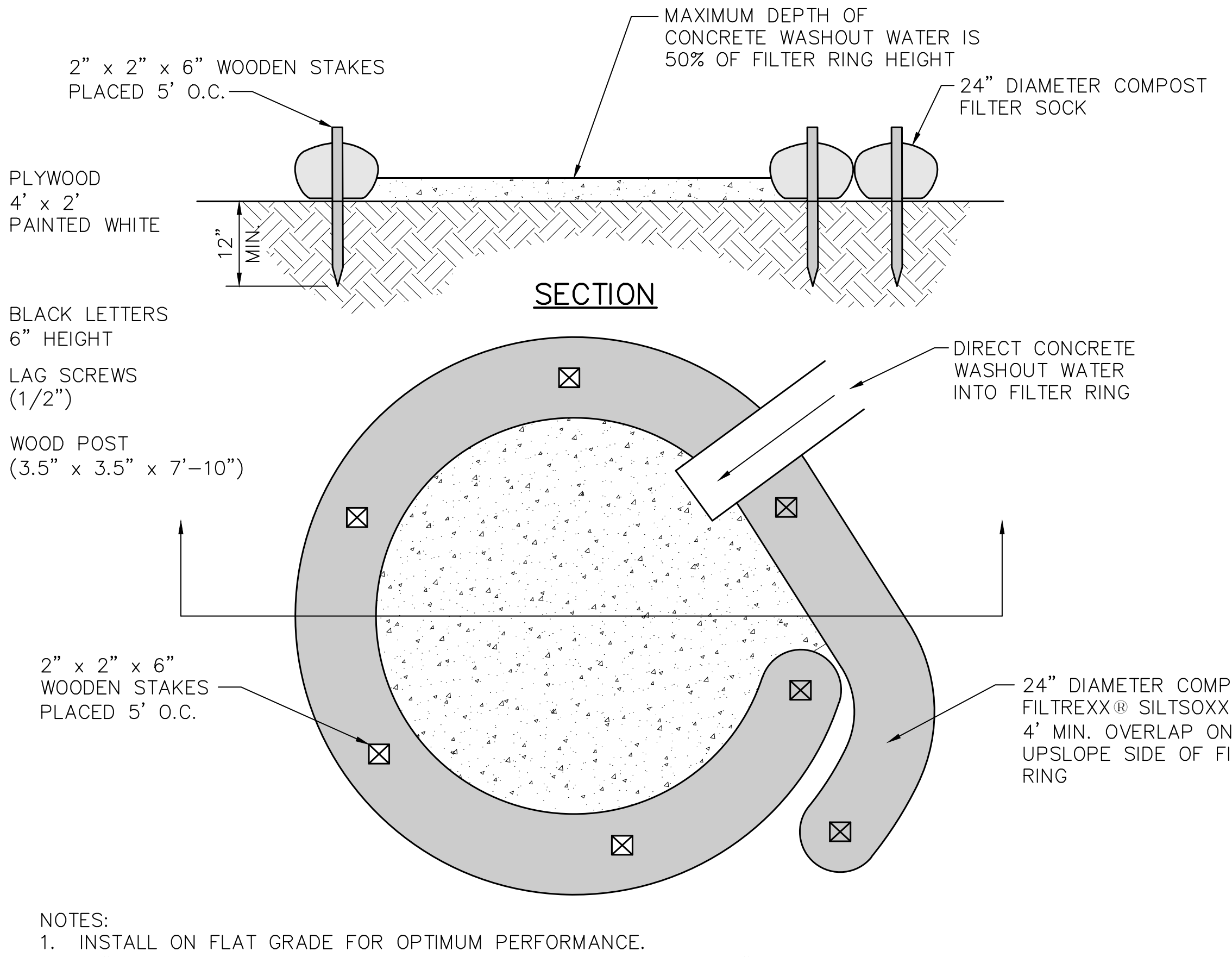
** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

H / ES-3 NORTH AMERICAN GREEN CHANNEL PROTECTION

NOT TO SCALE


CONCRETE WASHOUT
PLYWOOD 4' x 2' PAINTED WHITE
BLACK LETTERS 6" HEIGHT
LAG SCREWS (1/2")
WOOD POST (3.5" x 3.5" x 7'–10")
3'–0"
3'–0"

CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT)

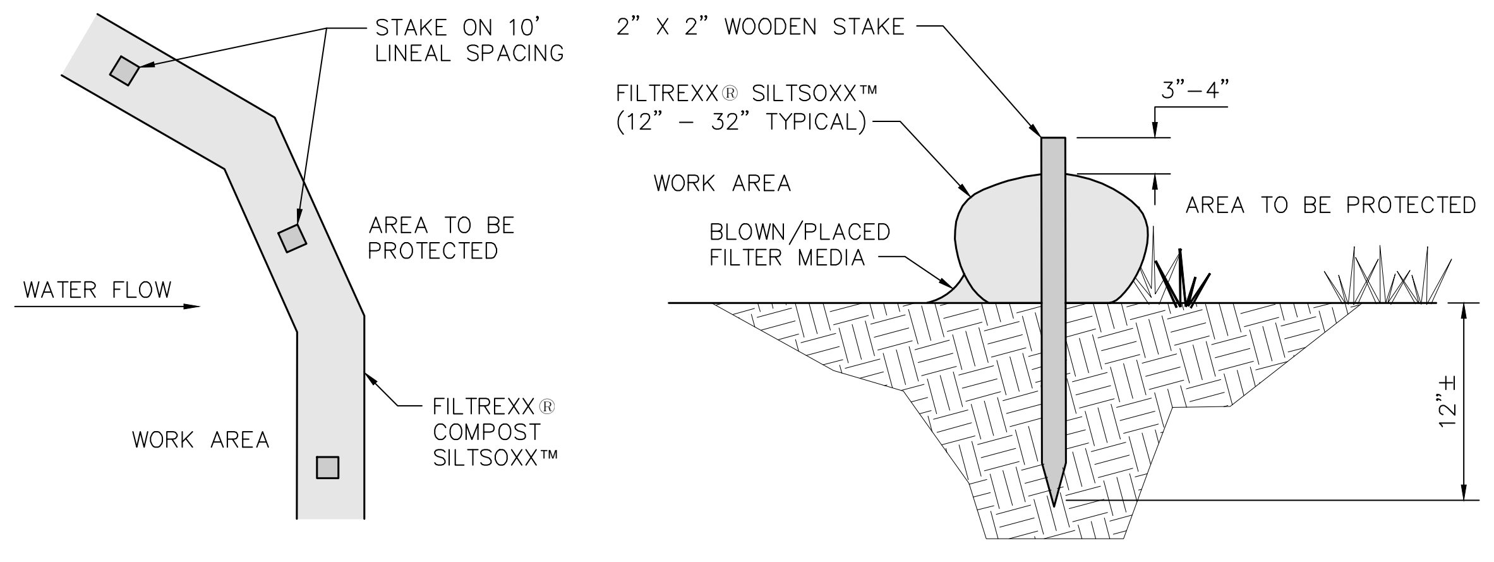

2" x 2" x 6" WOODEN STAKES PLACED 5' O.C.
MAXIMUM DEPTH OF CONCRETE WASHOUT WATER IS 50% OF FILTER RING HEIGHT
24" DIAMETER COMPOST FILTER SOCK
12" MIN.
SECTION
DIRECT CONCRETE WASHOUT WATER INTO FILTER RING
2" x 2" x 6" WOODEN STAKES PLACED 5' O.C.
24" DIAMETER COMPOST FILTREXX® SILTSOXX™. 4' MIN. OVERLAP ON UPSLOPE SIDE OF FILTER RING

NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING SOCKS.

J / ES-3 CONCRETE WASHOUT DETAIL

NOT TO SCALE

TABLE 4.2	
COMPOST STANDARDS	
Organic Matter Content	80% - 100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5 - 8.0
Moisture Content	35% - 55%
Particle Size	98% pass through 1" screen
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum


STAKE ON 10' LINEAL SPACING
AREA TO BE PROTECTED
WATER FLOW
WORK AREA
FILTREXX® COMPOST SILTSOXX™
2" X 2" WOODEN STAKE
FILTREXX® SILTSOXX™ (12" – 32" TYPICAL)
3"–4"
WORK AREA
AREA TO BE PROTECTED
BLOWN/PLACED FILTER MEDIA
12"±

FILTREXX® SILTSOXX™ PLAN VIEW

FILTREXX® SILTSOXX™ SECTION

NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. SILTSOXX™ COMPOST / JSOIL /ROCK /SEED FILL TO MEET APPLICATION REQUIREMENTS.
3. SILTSOXX™ DEPICTED IS FOR MINIMUM SLOPES. GREATER SLOPES MAY REQUIRE LARGER SOCKS PER THE ENGINEER.
4. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.
5. SEE WEBSITE FOR CURRENT VENDOR LISTING AT WWW.FILTREXX.COM
6. CONTACT FILTREXX AT 1–800–466–8524 FOR PRODUCT INFORMATION AND MAINTENANCE REQUIREMENTS.

SILT FENCE MAY BE SUBSTITUTED FOR FILTREXX SILTSOXX WITH APPROVAL OF THE CONSERVATION DISTRICT. USE 18" SILT FENCE IN PLACE OF 12" SILTSOXX. USE 30" SILT FENCE IN PLACE OF 18" SILTSOXX. USE SUPER SILT FENCE IN PLACE OF 24" SILTSOXX EXCEPT IN THE FOLLOWING LOCATIONS: SILTSOXX MAY NOT BE USED IN SEDIMENT BASIN BOTTOMS AS BAFFLE WALLS. IT MAY NOT BE USED WITHIN TEN FEET UPHILL FROM WETLAND EDGES. SUPER SILT FENCE MUST BE USED IN THOSE LOCATIONS.

MAINTENANCE NOTES:
1. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
3. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
4. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
5. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

K / ES-3 FILTREXX® SILTSOXX™ DETAILS

NOT TO SCALE

Sheet Number: 38 of 40
Project Number: 15–100–34
Date: APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.2

Lower Allen Township - Cumberland County, PA
CHARTER Homes & Neighborhoods

EROSION & SEDIMENTATION CONTROL DETAILS

Drafting: D TURNER
Checked by: –
Scale: 1"=50'
Project Manager: DAVID B. KEGERIZE PE
Project Engineer: G. MITCHELL KING PE, PLS
Project Surveyor: MATTHEW D. DENNIS PE, PLS

0 25 50 100 150

Seal: G. MITCHELL KING
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1/7/25

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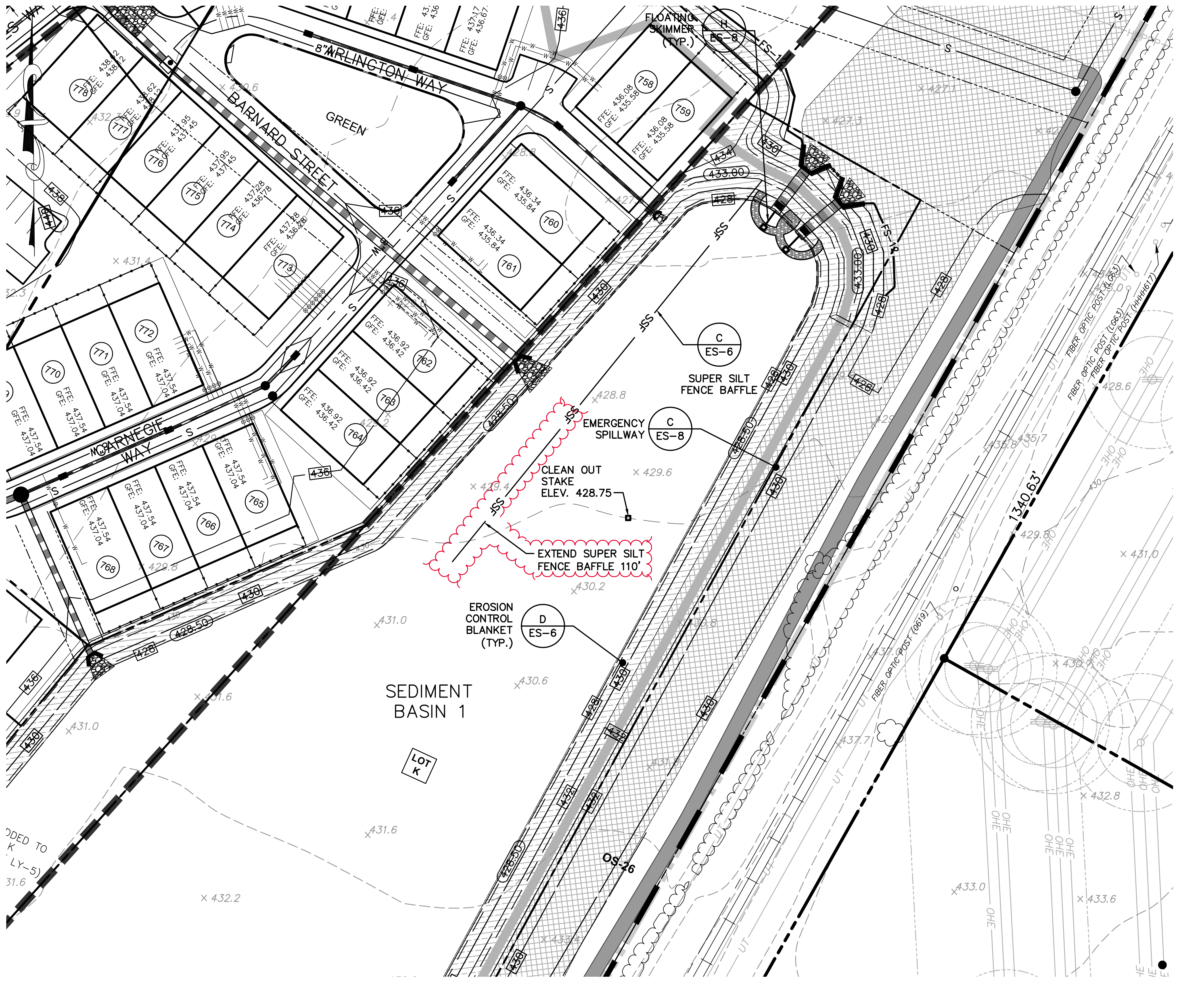
Civil Engineers & Land Planners

DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number: ES–3

1/21/2025 12:47 PM L:\15–100–34\SHEETS\PRELIMINARY\38 ES–03.DWG

PRELIMINARY / FINAL


ARLINGTON WAY
BARNARD STREET
GREEN
CARNEGIE WAY
FLOATING SKIMMER (TYP.)
C ES-8
C ES-6
SUPER SILT FENCE BAFFLE
EMERGENCY SPILLWAY
CLEAN OUT STAKE ELEV. 428.75
EXTEND SUPER SILT FENCE BAFFLE 110'
EROSION CONTROL BLANKET (TYP.)
D ES-6
SEDIMENT BASIN 1
LOT K
1340.63'
OS-26

DETENTION BASIN - PLAN

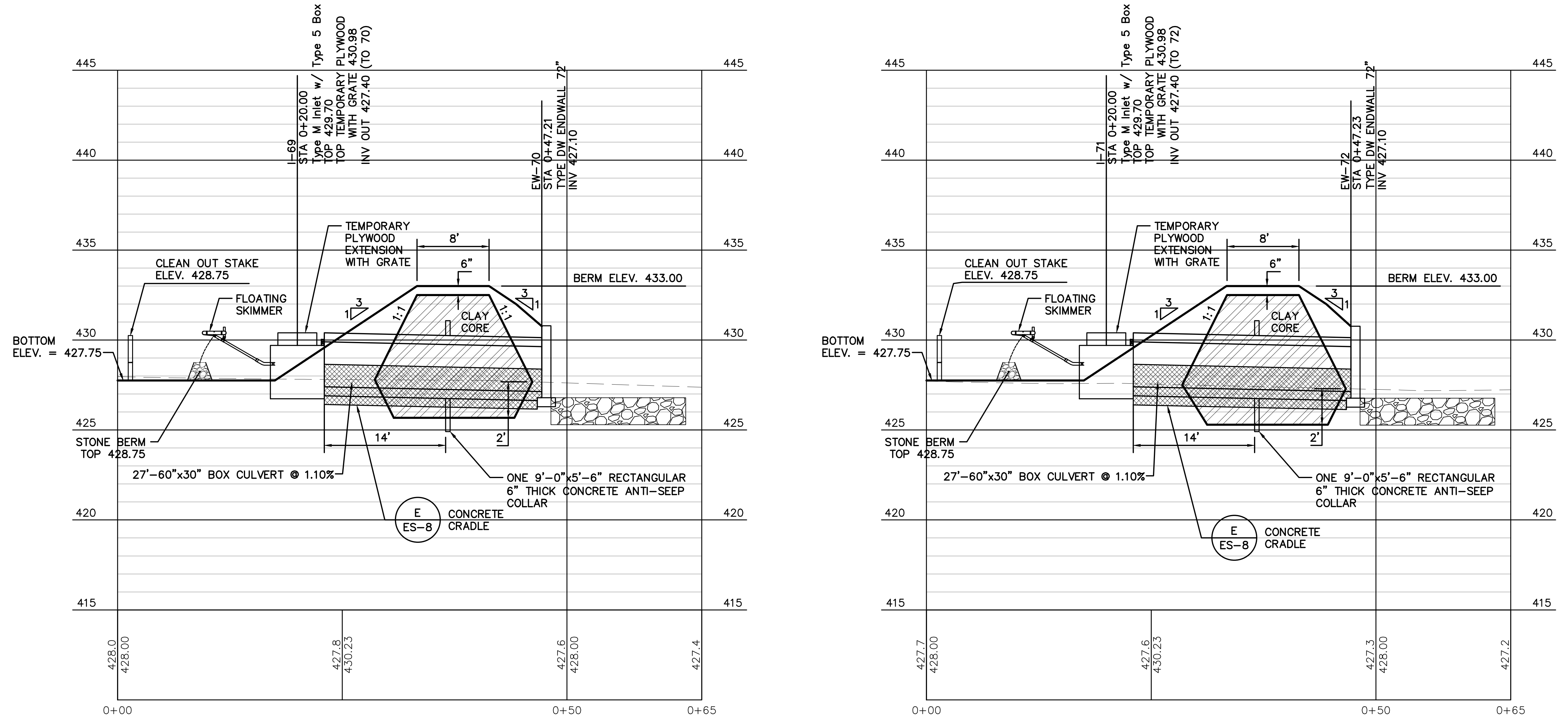
A ES-4 SCALE: 1" = 50'

DETENTION BASIN EMBANKMENT SPECIFICATIONS

COMPACTION:
THE EMBANKMENT FILL & CLAY CORE SHALL BE PLACED IN 6 INCH HORIZONTAL LAYERS CONDITIONED TO OPTIMUM MOISTURE CONTENT, AND COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DENSITY PER THE MODIFIED PROCTOR TEST. THE CONTRACTOR SHALL MAINTAIN THE MOISTURE CONTENT OF THE FILL MATERIAL AS REQUIRED TO PROVIDE THIS REQUIRED DENSITY.

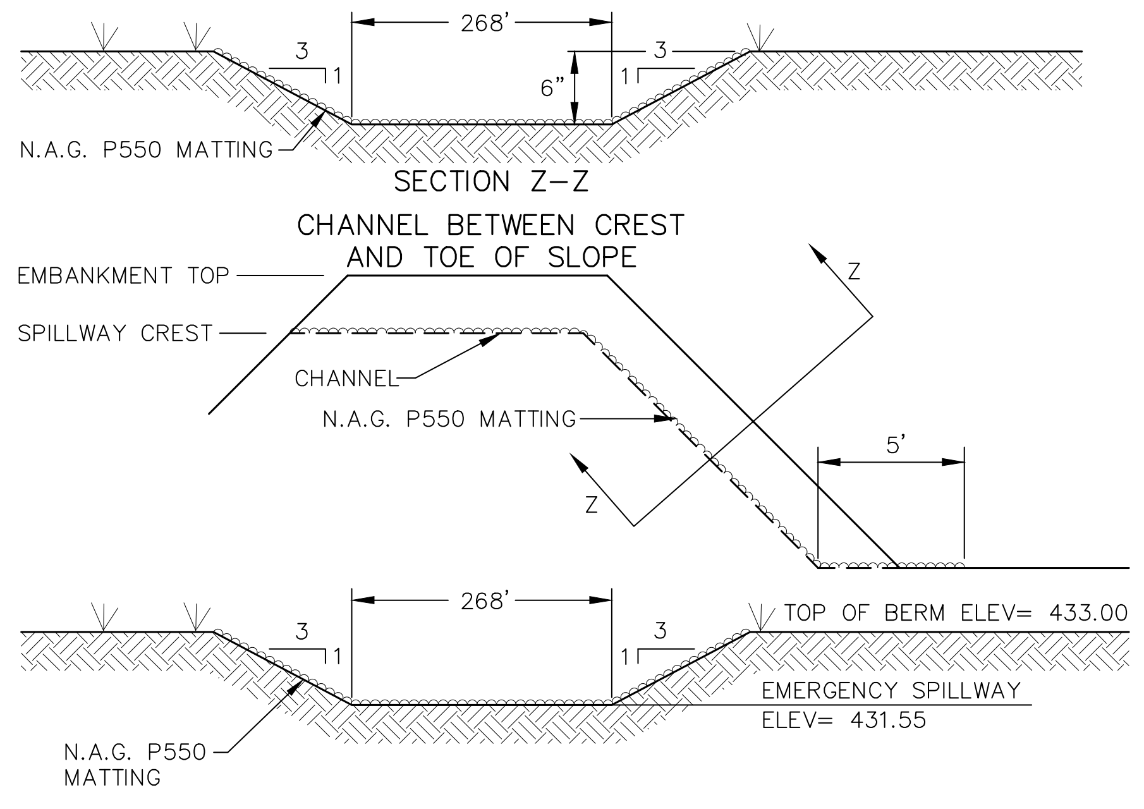
MATERIAL:
EARTH SUBSOIL – COHESIVE SOILS WITHOUT LARGE STONES OR ORGANIC MATTER.
CLAY CORE – SANDY CLAY OR SILTY CLAY LOAM
STRIP EXISTING TOPSOIL FROM FOOTPRINT OF EMBANKMENT.

THE BASIN FROM ARCONA PHASE 8.1 HAS ALREADY BEEN CONSTRUCTED AND IS WORKING AS DESIGNED. THIS SHEET SHOWS CHANGES TO ADD VOLUME REQUIRED FOR ADDITIONAL IMPERVIOUS AREA AS PART OF ARCONA PHASE 8.2. CHANGES FROM ARCONA 8.1 HAVE BEEN CLOUDED.


445
440
435
430
425
420
415
I-69 STA 0+20.00 Type M Inlet w/ Type 5 Box TOP 429.70 TEMPORARY PLYWOOD WITH GRATE 430.98 INV OUT 427.40 (TO 70)
EW-70 STA 0+47.21 TYPE DW ENDWALL 72" INV 427.10
I-71 STA 0+20.00 Type M Inlet w/ Type 5 Box TOP 429.70 TEMPORARY PLYWOOD WITH GRATE 430.98 INV OUT 427.40 (TO 72)
EW-72 STA 0+47.23 TYPE DW ENDWALL 72" INV 427.10
TEMPORARY PLYWOOD EXTENSION WITH GRATE
CLEAN OUT STAKE ELEV. 428.75
FLOATING SKIMMER
CLAY CORE
BERM ELEV. 433.00
8'
6"
3
1
1:1
BOTTOM ELEV. = 427.75
STONE BERM TOP 428.75
14'
2'
27'–60"x30" BOX CULVERT @ 1.10%
ONE 9'–0"x5'–6" RECTANGULAR 6" THICK CONCRETE ANTI-SEEP COLLAR
E ES-8 CONCRETE CRADLE
0+00
0+50
0+65

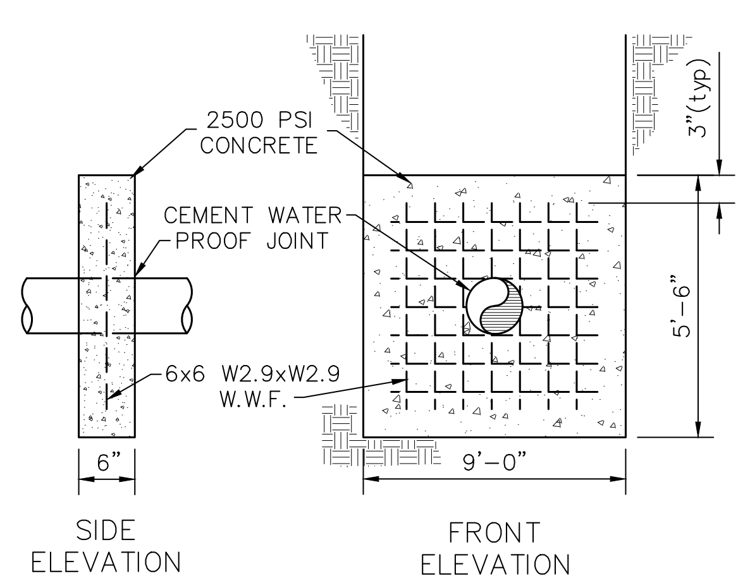
DETENTION BASIN - CROSS SECTIONS

B ES-4 SCALE: HORIZONTAL – 1" = 10' / VERTICAL – 1" = 5'


268'
6"
3
1
N.A.G. P550 MATTING
SECTION Z–Z
CHANNEL BETWEEN CREST AND TOE OF SLOPE
EMBANKMENT TOP
SPILLWAY CREST
CHANNEL
N.A.G. P550 MATTING
Z
5'
TOP OF BERM ELEV= 433.00
EMERGENCY SPILLWAY ELEV= 431.55

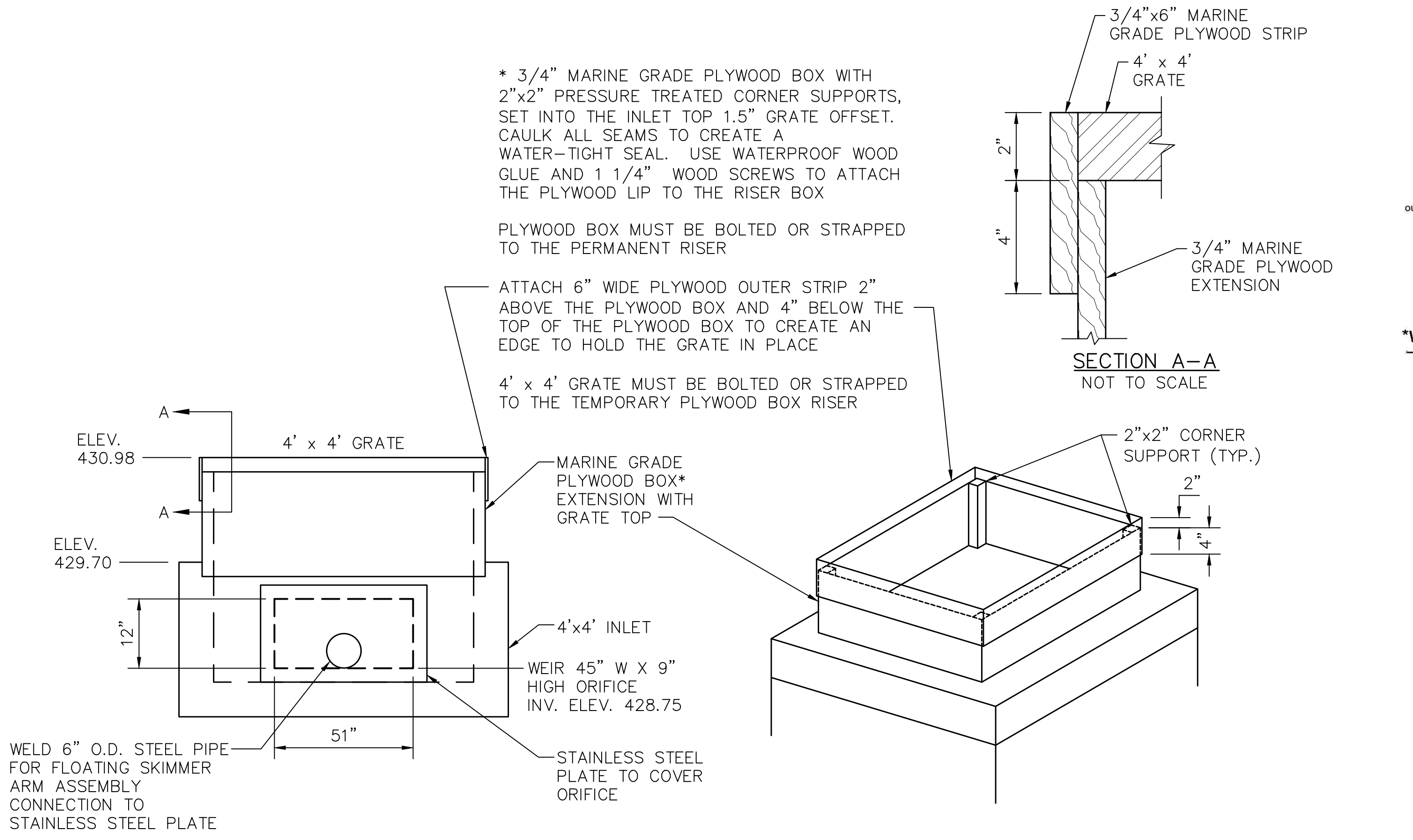
EMERGENCY SPILLWAY

C ES-4 NOT TO SCALE


2500 PSI CONCRETE
CEMENT WATER-PROOF JOINT
6x6 W2.9xW2.9 W.W.F.
6"
3'(typ)
5'–6"
9'–0"
SIDE ELEVATION
FRONT ELEVATION

ANTI-SEEP COLLAR

D ES-4 NOT TO SCALE


3/4"x6" MARINE GRADE PLYWOOD STRIP
4' x 4' GRATE
2"
4"
3/4" MARINE GRADE PLYWOOD EXTENSION
SECTION A–A
NOT TO SCALE
A
ELEV. 430.98
4' x 4' GRATE
ELEV. 429.70
12"
51"
MARINE GRADE PLYWOOD BOX* EXTENSION WITH GRATE TOP
4'x4' INLET
WEIR 45" W X 9" HIGH ORIFICE INV. ELEV. 428.75
WELD 6" O.D. STEEL PIPE FOR FLOATING SKIMMER ARM ASSEMBLY CONNECTION TO STAINLESS STEEL PLATE
STAINLESS STEEL PLATE TO COVER ORIFICE
2"x2" CORNER SUPPORT (TYP.)
2"
4"

* 3/4" MARINE GRADE PLYWOOD BOX WITH 2"x2" PRESSURE TREATED CORNER SUPPORTS, SET INTO THE INLET TOP 1.5" GRATE OFFSET. CAULK ALL SEAMS TO CREATE A WATER–TIGHT SEAL. USE WATERPROOF WOOD GLUE AND 1 1/4" WOOD SCREWS TO ATTACH THE PLYWOOD LIP TO THE RISER BOX

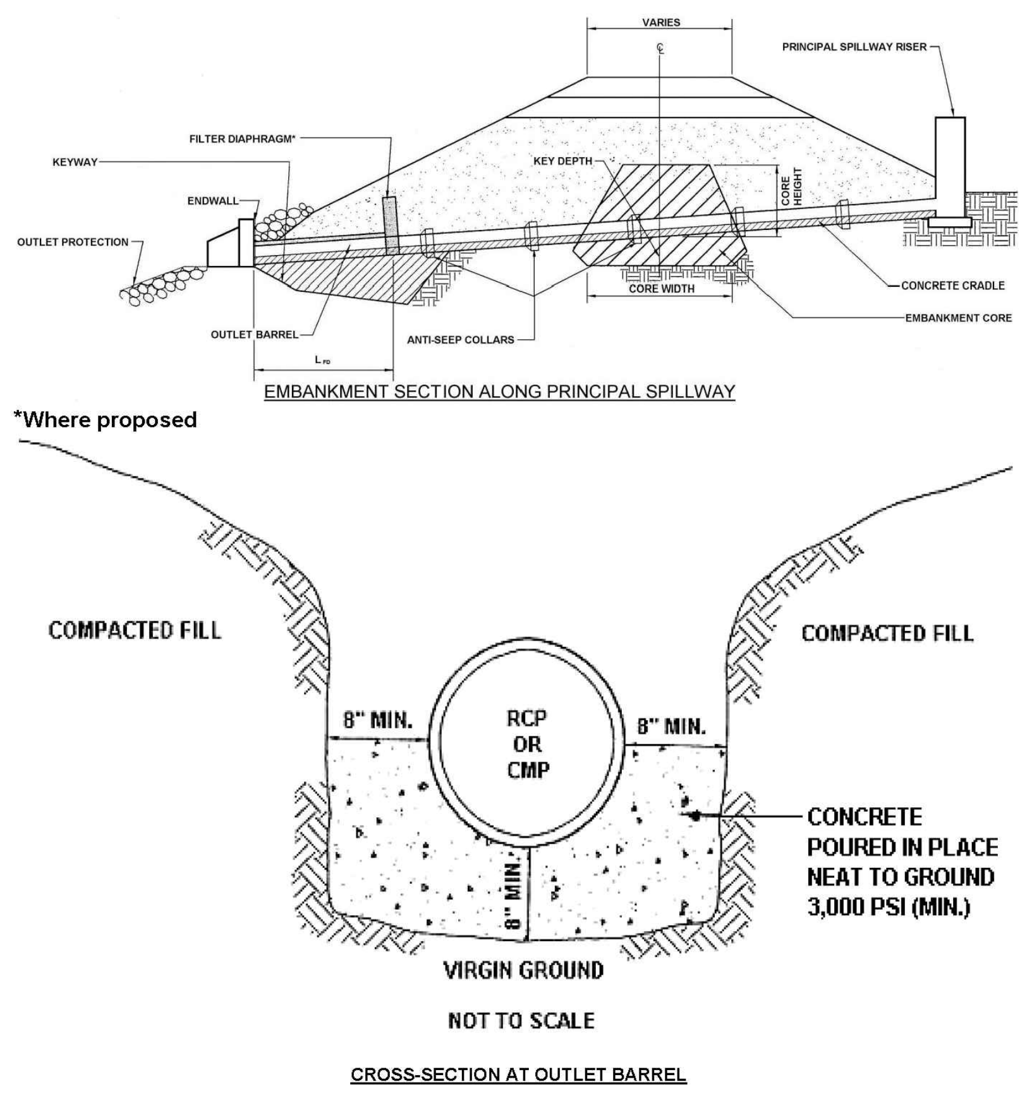
PLYWOOD BOX MUST BE BOLTED OR STRAPPED TO THE PERMANENT RISER

ATTACH 6" WIDE PLYWOOD OUTER STRIP 2" ABOVE THE PLYWOOD BOX AND 4" BELOW THE TOP OF THE PLYWOOD BOX TO CREATE AN EDGE TO HOLD THE GRATE IN PLACE

4' x 4' GRATE MUST BE BOLTED OR STRAPPED TO THE TEMPORARY PLYWOOD BOX RISER

BASIN OUTLET - I-66 & I-67

G ES-4 NOT TO SCALE


PRINCIPAL SPILLWAY RISER
KEYWAY
FILTER DIAPHRAGM*
KEY DEPTH
ENDWALL
OUTLET PROTECTION
OUTLET BARREL
ANTI-SEEP COLLARS
CORE WIDTH
CONCRETE CRADLE
EMBANKMENT CORE
EMBANKMENT SECTION ALONG PRINCIPAL SPILLWAY
*Where proposed
COMPACTED FILL
COMPACTED FILL
8" MIN.
RCP OR CMP
8" MIN.
8" MIN.
CONCRETE POURED IN PLACE NEAT TO GROUND 3,000 PSI (MIN.)
VIRGIN GROUND
NOT TO SCALE
CROSS-SECTION AT OUTLET BARREL

CONCRETE CRADLE FOR BASIN OUTLET BARREL

E ES-4 NOT TO SCALE

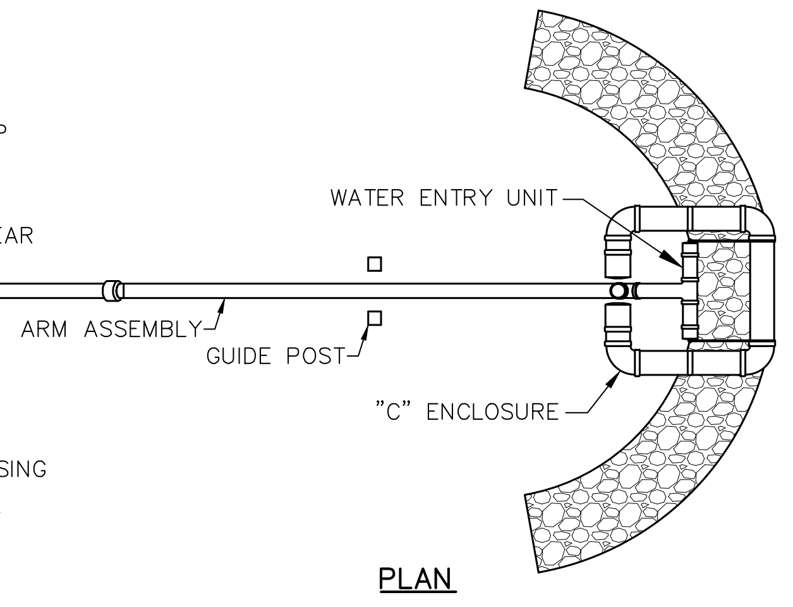
FAIRCLOTH SKIMMER MAINTENANCE

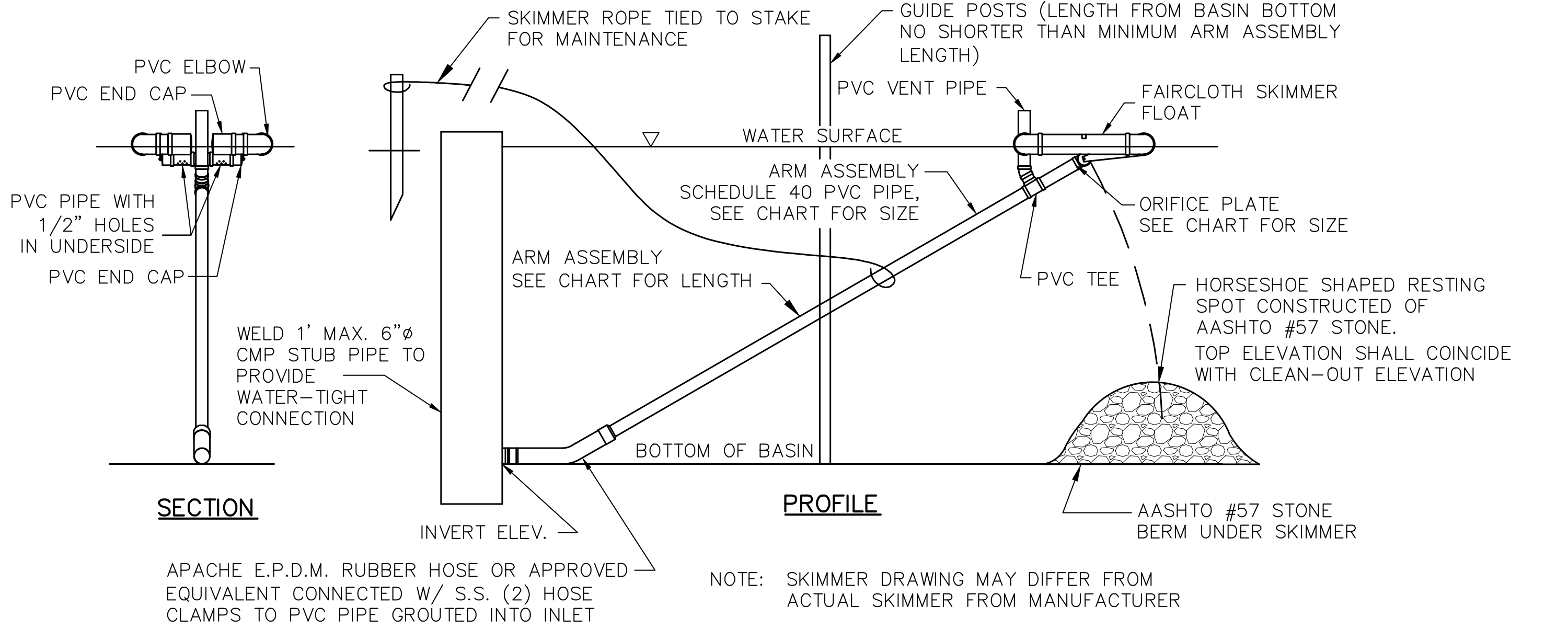
MAINTAIN THE HEIGHT OF THE HORSESHOE SHAPED STONE RING TO THE CLEAN OUT ELEVATION. PREVENT THE SKIMMER FROM GETTING STUCK IN THE MUD. USE ROPE TO PULL THE SKIMMER UP AND TO THE SIDE FOR CLEANING. IN WINTER OPERATIONS, BREAK SKIMMER LOOSE FROM ICE TO ALLOW IT TO FLOAT PROPERLY.

IF THE SKIMMER IS CLOGGED WITH TRASH, JERK THE ROPE A FEW TIMES. THIS WILL USUALLY CLEAR THE CLOG. IF IT DOES NOT, PULL THE SKIMMER TO THE SIDE OF THE BASIN FOR CLEANING.

IF THE ORIFICE PLATE OR THE PIPE BARREL BECOME CLOGGED, FOLLOW THESE PROCEDURES:

1. PULL SKIMMER TO SIDE OF BASIN.
2. REMOVE PIN AND OPEN DOOR FOR ACCESS TO THE ORIFICE.
3. REMOVE ORIFICE PLUG OR CAP.
4. RAISE INLET AS HIGH AS PRACTICABLE.
5. FILL BARREL WITH WATER (USE BUCKET AND FUNNEL OR A PUMP) TO REMOVE THE CLOG USING WATER AND PRESSURE.
6. AFTER OBSTRUCTION IS CLEARED, CONTINUE POURING WATER IN THE BARREL TO FLUSH OUT ACCUMULATED DEBRIS AND SEDIMENT TO PREVENT FUTURE CLOGGING.
7. A PLUMBERS SNAKE CAN BE USED BUT FLUSHING OUT THE SEDIMENT AND DEBRIS IS RECOMMENDED FIRST.


WATER ENTRY UNIT
ARM ASSEMBLY
GUIDE POST
"C" ENCLOSURE
PLAN


PVC ELBOW
PVC END CAP
PVC PIPE WITH 1/2" HOLES IN UNDERSIDE
PVC END CAP
SECTION
SKIMMER ROPE TIED TO STAKE FOR MAINTENANCE
GUIDE POSTS (LENGTH FROM BASIN BOTTOM NO SHORTER THAN MINIMUM ARM ASSEMBLY LENGTH)
PVC VENT PIPE
FAIRCLOTH SKIMMER FLOAT
WATER SURFACE
ARM ASSEMBLY SCHEDULE 40 PVC PIPE, SEE CHART FOR SIZE
ORIFICE PLATE SEE CHART FOR SIZE
ARM ASSEMBLY SEE CHART FOR LENGTH
PVC TEE
HORSESHOE SHAPED RESTING SPOT CONSTRUCTED OF AASHTO #57 STONE. TOP ELEVATION SHALL COINCIDE WITH CLEAN–OUT ELEVATION
WELD 1' MAX. 6"ø CMP STUB PIPE TO PROVIDE WATER–TIGHT CONNECTION
BOTTOM OF BASIN
INVERT ELEV.
PROFILE
AASHTO #57 STONE BERM UNDER SKIMMER

APACHE E.P.D.M. RUBBER HOSE OR APPROVED EQUIVALENT CONNECTED W/ S.S. (2) HOSE CLAMPS TO PVC PIPE GROUTED INTO INLET BOX TO PROVIDE A WATERTIGHT CONNECTION

NOTE: SKIMMER DRAWING MAY DIFFER FROM ACTUAL SKIMMER FROM MANUFACTURER

STRUCTURE	BASIN #	MINIMUM ARM ASSEMBLY LENGTH	ORIFICE SIZE	PVC ø	INVERT ELEV.	STONE BERM HEIGHT
OS–1	1	4.6'	6.0"	6" ø	428.75	12"
OS–2	1	4.6'	6.0"	6" ø	428.75	12"

NOTE: REMOVE EXISTING ORIFICE PLATES.

USE FAIRCLOTH SKIMMER BY
J. W. FAIRCLOTH & SON
FLOATING SKIMMER
(919) 732–1244

APPROVAL OF THE USE OF SKIMMER(S) DOES NOT APPROVE USE OF ANY SKIMMER(S) IN VIOLATION OF ANY PATENT, PATENT RIGHTS, AND/OR PATENT LAWS

TEMPORARY FLOATING SKIMMER DETAIL

H ES-4 NOT TO SCALE (IN PLACE DURING CONSTRUCTION ONLY)

Sheet Number:
39 of 40

Project Number:
15–100–34

Date:
APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3
Lower Allen Twp./Cumberland Co., PA
CHARTER Homes & Neighborhoods

EROSION & SEDIMENTATION CONTROL BASIN DETAILS

Drafting: D TURNER
Checked by: –
Scale: 1"=50'
Project Manager: DAVID B. KEGERIZE PE
Project Engineer: G. MITCHELL KING PE, PLS
Project Surveyor: MATTHEW D. DENNIS PE, PLS

0 25 50 100 150

Seal:
G. MITCHELL KING
No. PE36683-E
1/7/25

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Phone: (717) 283-4538
Civil Engineers & Land Planners

DATE	REVISIONS
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10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number:
ES–4

PRELIMINARY / FINAL

MAINTENANCE

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT ON UPON REQUEST.

ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.

WHERE BMPS ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO–PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
A. THE LOCATION AND SEVERITY OF THE BMPS FAILURE AND ANY POLLUTION EVENTS.
B. ALL STEPS TAKEN TO, REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON–COMPLIANCE.
C. THE TIME FRAME TO CORRECT THE NON–COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPS MUST BE STABILIZED IMMEDIATELY.

SILT FENCE: THE SILT FENCE SHALL BE INSPECTED AFTER EACH STORM EVENT. ALL ACCUMULATED SEDIMENT MUST BE REMOVED AS REQUIRED TO KEEP THE SILT FENCE FUNCTIONING. THE CONTRACTOR SHALL ENSURE THAT, IN NO CASE, DOES THE SEDIMENT ACCUMULATION EXCEED ONE HALF OF THE HEIGHT OF THE SILT FENCE. ALL UNDERCUTTING OR EROSION OF THE TOE ANCHOR WILL BE REPAIRED IMMEDIATELY WITH COMPACTED BACKFILL MATERIALS. ANY DAMAGED OR OVERTOPPED SILT FENCE SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER.

SEDIMENT BASINS: SEDIMENT MUST BE REMOVED FROM THE BASINS WHEN THE CLEANOUT ELEVATION IS REACHED. SEDIMENT MUST BE DEWATERED USING A PUMP TO REMOVE EXCESS WATER WHEN NECESSARY. THE EXCESS WATER MUST BE PUMPED TO A SEDIMENT REMOVAL FACILITY FOR PUMPED WATER. THIS FACILITY MUST BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL SHOWN ON THE PLANS. REMOVED DEWATERED SEDIMENT SHALL BE REDISTRIBUTED ON THE CLOSEST SOIL STOCKPILE AND STABILIZED WITH TEMPORARY MEASURES AS INDICATED ON THE SEEDING SCHEDULE. THE CONTRACTOR SHALL ENSURE THAT MEASURES ARE TAKEN TO PROTECT THE SEDIMENT BASINS FROM UNAUTHORIZED ACTS OF THIRD PARTIES. THE SEDIMENT TRAP MUST REMAIN IN PROPER WORKING ORDER UNTIL ALL OF THE TRIBUTARY AREA TO THE BASIN HAS BEEN PERMANENTLY STABILIZED. PERMANENT STABILIZATION SHALL BE DETERMINED WHEN A UNIFORM VEGETATIVE COVER OF AT LEAST SEVENTY PERCENT (70%) HAS BEEN ESTABLISHED.

DIVERSION CHANNELS: DIVERSION CHANNELS SHALL BE INSPECTED AFTER EACH STORM EVENT. ALL ERODED AREAS SHALL BE IMMEDIATELY REESTABLISHED TO PREVENT TRANSPORT OF SEDIMENT. ANY AREA OF THE BERM WHICH REPEATEDLY BECOMES ERODED SHALL BE LINED WITH STONE.

STABILIZED CONSTRUCTION ENTRANCES: THE CONTRACTOR SHALL MAINTAIN THE THICKNESS OF THE ROCK CONSTRUCTION ENTRANCE AS SPECIFIED ON THE PLANS BY ADDING ROCK. ANY SEDIMENT DEPOSITED ON THE ROADWAYS MUST BE REMOVED AND RETURNED TO THE SITE AT THE END OF EACH DAY. SEDIMENT REMOVAL MUST BE DONE BY SWEEPING AND VACUUMING. WASHING SEDIMENT OFF OF ROADWAYS WITH WATER SHALL NOT BE PERMITTED. STONE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN PLACE UNTIL REMOVAL IS NECESSARY FOR FINAL GRADING OF THE DRIVEWAY SUBGRADE. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON THE SITE TO MAINTAIN THE THICKNESS OF THE CONSTRUCTION ENTRANCE AS SHOWN ON THE PLANS. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.

SOIL STOCKPILES: THE CONTRACTOR SHALL INSPECT THE SOIL STOCKPILES AFTER EVERY STORM EVENT. IF SILT FENCE BECOMES DAMAGED OR OVERTOPPED, REPAIR OR REPLACE IMMEDIATELY. IF STOCKPILES ARE LEFT IN PLACE FOR EXTENDED PERIODS, RE–APPLY TEMPORARY SEED AND MULCH AS NEEDED TO PREVENT EROSION. AFTER CONSTRUCTION IS COMPLETE, ANY REMAINING STOCKPILE MATERIAL SHALL BE GRADED ONTO THE SITE AND STABILIZED OR HAULED OFF SITE.

RIPRAP APRONS: THE CONTRACTOR SHALL INSPECT THE RIPRAP APRONS AFTER EACH STORM EVENT. WHEN NECESSARY, THE CONTRACTOR SHALL REPLACE STONE THAT HAS WASHED AWAY BY ADDING ADDITIONAL STONE TO THE RIPRAP APRON.

EROSION CONTROL BLANKET: THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL BLANKET AFTER EVERY STORM EVENT. IF THE MATTING BECOMES DAMAGED OR SLIDES, MAKE REPAIRS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. IN ADDITION TO THE HATCHED AREAS INDICATED, CONTRACTOR SHALL INSTALL EROSION CONTROL MATTING ON ALL 3:1 SLOPES OR GREATER, PER NORTH AMERICAN GREEN S75, OR APPROVED EQUAL. IF DEEMED NECESSARY BY THE CONSERVATION DISTRICT, ADDITIONAL EROSION CONTROL MATTING MAY BE REQUIRED BEYOND WHAT IS INDICATED ON THESE PLANS.

INLET PROTECTION: SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.

TEMPORARY STABILIZATION AND PERMANENT STABILIZATION: HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 AND STEEPER. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.

CLEAN FILL NOTE

IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH CONTRACTOR.

CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON–WATER SOLUBLE, NON–DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE–USE).

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP–1A AND FP–1B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP–001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP–001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP–001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.

ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON–LINE AT.

TABLE 11.1

Cubic Yards of Topsoil Required for Application to Various Depths

Depth (in)	Per 1,000 Square Feet	Per Acre
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806
7	21.7	940
8	24.8	1,074

SEEDING SPECIFICATIONS

SEED TYPE	DESCRIPTION, FORMULA, SPECIES	% BY WEIGHT	MINIMUM %		PURE LIVE SEED %	MAX % WEED/SEED	SEEDING RATE: LBS/1000 S.F.	FERTILIZER RATE: LBS/1000S.F.		LIME RATE: LBS/1000 S.F.	MULCH RATE:
			PURITY	GERMINATION				BASIC	STARTER		
TYPE 1 Lawn areas (per PennDOT specs)	PennDOT formula B *Perennial Ryegrass mixture, + *Creeping Red Fescue, + *Kentucky Bluegrass mixture	20 30 50	98 98 98	90 85 80	88 83 78	0.15 0.15 0.20	0.44 0.67 1.2 Total = 2.3	15–10–10	40	89	3 Tons/Acre
TYPE 2 Sloped areas greater than 3:1	Crownvetch seeding mixture *Crownvetch, + *Annual Ryegrass, + *Alsike Clover	50 40 10	99 98 98	70 90 90	69 88 88	0.10 0.15 0.20	0.55 0.44 0.11 Total = 1.1	15–20		100	1–1/2" Straw
TYPE 3 Temporary seeding	Annual Ryegrass	100	98	90	88	0.15	1.1 Total = 1.1	15–20		125	3 Tons/Acre
TYPE 4 Detention Basin & Sediment Forebay bottom seeding	Detention Basin & Sediment Forebay Seed Mix: Use ERNMX–127; Ernst Conservation Seed, 1–800–873–3321, www.ernstseed.com; Seed at 20 Bulk pounds per acre or ½ to 1 lb. per 1,000 s.f.							25–30		100	1–1/2" Straw

NPDES NOTES

1. THE NPDES BOUNDARY IS EQUAL TO THE OUTER PERIMETER BOUNDARY OF THE SITE, AND ANY OFF–SITE AREAS WITHIN THE LIMITS OF DISTURBANCE THAT ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL, INCLUDING OFF–SITE FACILITIES SUCH AS UTILITIES AND ROADWAY IMPROVEMENTS.
2. THE EROSION AND SEDIMENT CONTROL PLANS REQUIRED UNDER THE NPDES GENERAL PERMIT ARE CONSIDERED REPORTS THAT SHALL BE AVAILABLE TO THE PUBLIC UNDER SECTION 607 OF THE CLEAN STREAMS LAW, AND 25 PA. CODE, CHAPTER 92 OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION GUIDANCE. THE OWNER OR OPERATOR OF A FACILITY WITH STORM WATER DISCHARGES COVERED BY THE NPDES GENERAL PERMIT SHALL MAKE PLANS AVAILABLE TO THE PUBLIC UPON REQUEST BY THE PUBLIC.
3. THE OWNER (PERMITTEE) AND CONTRACTOR/EXCAVATOR (CO–PERMITTEE) SHALL CONTACT THE COUNTY CONSERVATION DISTRICT AND TOWNSHIP AT LEAST FOURTEEN DAYS PRIOR TO START OF CONSTRUCTION TO SCHEDULE A PRE–CONSTRUCTION CONFERENCE WITH THE PERMITTEE, CO–PERMITTEE AND OTHERS UNDERTAKING EARTH DISTURBANCE ACTIVITY ATTENDING THE PRE–CONSTRUCTION CONFERENCE.
4. THE OWNER (PERMITTEE) AND CONTRACTOR/EXCAVATOR (CO–PERMITTEE) SHALL FILE A NOTICE OF TERMINATION (N.O.T.) FOR THE NPDES PERMIT WHEN ALL EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN REMOVED. THE OWNER IS ENCOURAGED TO INCLUDE THE GENERAL CONTRACTOR, EXCAVATOR AND OTHER SUBCONTRACTORS INVOLVED IN THE EARTH DISTURBANCE ACTIVITY AS CO–PERMITTEES FOR THE PROJECT.
5. THE N.O.T. WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS–BUILT PLANS. PRIOR TO ACCEPTING THE N.O.T., THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF BMPs.

RECYCLING AND DISPOSAL OF BUILDING MATERIALS AND WASTES

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.

MONITORING & REPORTING REQUIREMENTS

1. THE OWNER (PERMITTEE) AND CONTRACTOR/EXCAVATOR (CO–PERMITTEE) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED BIWEEKLY, AND AFTER EACH PRECIPITATION EVENT BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT THE BMPS ARE OPERATIONAL AND EFFECTIVE IN PREVENTING POLLUTION TO THE WATER OF THE COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE: (1) A SUMMARY OF THE SITE CONDITIONS, BMPS AND COMPLIANCE; (2) THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION.
2. WHERE BMPS ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION, OR AT ANY TIME, THE PERMITTEE AND THE CO–PERMITTEE SHALL IMMEDIATELY CONTACT THE COUNTY CONSERVATION DISTRICT, BY PHONE OR PERSONAL CONTACT, FOLLOWED BY SUBMISSION OF A WRITTEN REPORT WITHIN 5 DAYS OF THE INITIAL CONTACT. NON– COMPLIANCE REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION: (1) ANY CONDITION ON THE PROJECT SITE WHICH MAY ENDANGER PUBLIC HEALTH, SAFETY, OR THE ENVIRONMENT, OR INVOLVE INCIDENTS WHICH WOULD THREATEN POLLUTION; (2) THE PERIOD OF NONCOMPLIANCE, INCLUDING THE EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE; (3) STEPS BEING TAKEN TO REDUCE, ELIMINATE AND PREVENT RECURRENCE OF THE NONCOMPLIANCE; AND (4) THE DATE OR SCHEDULE OF DATES, AND IDENTIFYING REMEDIES FOR CORRECTING NONCOMPLIANCE CONDITIONS.

RECORD KEEPING

1. THE PERMITTEE AND CO–PERMITTEE SHALL RETAIN RECORDS OF ALL MONITORING INFORMATION INCLUDING COPIES OF MONITORING AND INSPECTION REPORTS REQUIRED BY THIS PERMIT, AND THE RECORDS OF DATA USED TO COMPLETE THE NOTICE OF INTENT FOR THIS PERMIT, FOR A PERIOD OF THREE YEARS FROM THE DATE OF THE TERMINATION OF COVERAGE UNDER THE NPDES PERMIT. MONITORING RESULTS SHALL BE SUBMITTED TO THE COUNTY CONSERVATION DISTRICT UPON REQUEST.

COMPLIANCE RESPONSIBILITIES

1. THE OWNER (PERMITTEE) AND CONTRACTOR/EXCAVATOR (CO–PERMITTEE) MUST COMPLY WITH ALL TERMS AND CONDITIONS OF THE NPDES PERMIT. ANY PERMIT NONCOMPLIANCE CONSTITUTES A VIOLATION OF THE PENNSYLVANIA CLEAN STREAM LAW AND FEDERAL CLEAN WATER ACT AND IS GROUNDS FOR ENFORCEMENT ACTION; FOR PERMIT TERMINATION, REVOCATION AND REISSUANCE, OR MODIFICATION; OR DENIAL OF A PERMIT OR PERMIT RENEWAL.
2. THE PERMITTEE AND CO–PERMITTEE MAY BE SUBJECT TO CRIMINAL AND/OR CIVIL PENALTIES FOR VIOLATIONS OF THE CONDITIONS OF THE NPDES PERMIT UNDER SECTION 602 AND 605 OF THE CLEAN STREAMS LAW, 35 P.S. SECTIONS 691.602 AND 691.605, AND UNDER THE CLEAN WATER ACT AS SPECIFIED IN 40 C. F. R. SECTIONS 122.41(A)(2) AND (3), WHICH ARE INCORPORATED BY REFERENCE.

PREPAREDNESS, PREVENTION AND CONTINGENCY PLANS

1. IF THE POTENTIAL EXISTS FOR CAUSING ACCIDENTAL POLLUTION OF AIR, LAND, OR WATER OR FOR CAUSING ENDANGERMENT OF PUBLIC HEALTH AND SAFETY THROUGH ACCIDENTAL RELEASE OF TOXIC, HAZARDOUS, OR OTHER POLLUTING MATERIALS, THE PERMITTEE OR CO–PERMITTEE MUST DEVELOP A PREPAREDNESS, PREVENTION, AND CONTINGENCY (PPC) PLAN. THE PPC PLAN SHALL BE DEVELOPED ACCORDING TO DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATIONS. THE PPC PLAN SHALL IDENTIFY AREAS WHICH MAY INCLUDE, BUT ARE NOT LIMITED TO, WASTE MANAGEMENT AREAS, RAW MATERIALS STORAGE AREAS, TEMPORARY AND PERMANENT SPOILS STORAGE AREAS, MAINTENANCE AREAS, AND ANY OTHER AREAS WHICH MAY HAVE THE POTENTIAL TO CAUSE NONCOMPLIANCE WITH THE TERMS AND CONDITIONS OF THE NPDES PERMIT DUE TO STORAGE, HANDLING, OR DISPOSAL OF ANY TOXIC OR HAZARDOUS SUBSTANCES SUCH AS OIL, GASOLINE, PESTICIDES, HERBICIDES, SOLVENTS, ETC. BMPS SHALL BE DEVELOPED AND IMPLEMENTS FOR EACH IDENTIFIED AREA. THE PPC PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES AND SHALL BE MADE AVAILABLE AT THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S OR COUNTY CONSERVATION DISTRICT'S REQUEST

OFF–SITE DISCHARGE EROSION REPAIRS

DURING CONSTRUCTION THE DEVELOPER AND HIS CONTRACTOR SHALL INSPECT THE AREA DOWNSTREAM OF EACH BASIN OUTLET FOR STABILITY AND SIGNS OF EROSION AFTER ANY STORM EXCEEDING 3 INCHES IN RAINFALL. AFTER CONSTRUCTION IS COMPLETED THE OWNER SHALL CONDUCT THE INSPECTIONS.

CONTACT THE CONSERVATION DISTRICT AND THE DESIGN ENGINEER IF SIGNS OF EROSION ARE FOUND DOWNSTREAM OF THE BASIN OUTLETS. REPAIRS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER UNTIL THE OPEN SPACE LOTS ARE DEEDED TO THE OWNER. THE OWNER SHALL BE RESPONSIBLE FOR REPAIRS AFTER THAT.

ANY OFF–SITE REPAIRS MUST BE DONE AFTER APPROPRIATE PERMISSION HAS BEEN OBTAINED FROM THE OFF–SITE PROPERTY OWNER. ALL LOCAL, STATE AND FEDERAL REGULATIONS MUST BE COMPLIED WITH DURING REPAIRS TO DAMAGES.

AS–BUILT PLAN REQUIREMENTS

AS–BUILT PLANS OF THE STORMWATER BMP'S SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS–BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL ENGINEER.

SEQUENCE OF CONSTRUCTION FOR PROJECT

PRE–CONSTRUCTION STABILIZATION OF THE SITE

All disturbed areas from agricultural activities must be stabilized completely in the previous growing season prior to the start of grading by seeding with small grain or permanent vegetative cover as specified on these plans.

The project is anticipated to be constructed in multiple phases. Separate Erosion & Sediment Control sequencing are provided for construction of each phase. Construction shall be conducted in a manner to minimize earth disturbance at any given time. In accordance with the recommendations by the United States Fish and Wildlife Service, no tree removal shall be conducted from May 15 to August 15.

All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed and immediately stabilized before any following stage initiated. Clearing, grubbing and topsoil stripping shall be limited only to those areas described in each stage. Upon temporary cessation of the earth disturbance activity for four days or longer, the project site shall immediately be stabilized with the appropriate temporary stabilization. As soon as slopes, channels, ditches and other disturbed areas reach final grade, the area shall immediately be stabilized with the appropriate permanent stabilization.

Each phase stands independent of the other.

Each step marked "CSoC:" is a critical stage of construction and requires oversight by a professional engineer.

Construction of Arcona Phase 8.3 is to be sequenced in the following order:

Phase 8.3

1. As least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate Municipal Officials, the Erosion and Sedimentation Control Plan Preparer, and a representative of the Conservation District to an on–site meeting. The excavation contractor(s) shall execute an NPDES co–permittee/transferee agreement with PA DEP. The contractor shall ensure that all construction shall be done in accordance with the requirements of the NPDES permit.
2. The limit of disturbance must be field staked prior to any earth moving activities.
3. Install rock construction entrance #1 at the Eckford Park entrance. All construction equipment shall utilize the rock construction entrance for ingress and egress to the site. Maintain entrance over course of construction per detail to prevent tracking of soil/mud onto public roads.
4. Install silt filter sock as shown on the plan along the perimeter of the site. The contractor shall maintain the silt sock in working order throughout the course of construction, making inspections after each rainfall event and making any necessary repairs. In the event that any silt filter sock should fail in the course of construction, a rock filter outlet may be installed as a repair measure.
5. Inspect Sediment Basin outlet culverts, riprap pads, emergency spillway, super silt fence baffles, skimmers and rock rings by the skimmers to ensure that all E&S controls are installed as functioning as shown on Sheet ES–04. Repair and replace as needed.
6. Clear and grub the construction site. Tree removal shall not be conducted from May 15 to August 15.
7. Strip topsoil within the construction site. Stockpile in designated area(s) as shown on the plans and place silt filter sock on the down slope side of the stockpile. Immediately stabilize with temporary seeding as specified on the plan.
8. **CSoC: Excavate Basin 8.3 and construct berm. Install storm sewers from I–554 to the connection with I–300. Do not install planting soil or wetlands plantings at this time. The basin bottom grade shall be maintained at elevation 475.50.**
9. Conduct bulk earth moving operations. All runoff shall be directed to Basin 8.3, which reduces runoff rate but does not control sedimentation.
10. Install storm sewers beginning at the system endwall. Install rip–rap aprons at EW–500 and EW–552. All excavated utility trench must be backfilled by the end of each day.
11. Install the water main. All excavated utility trench must be backfilled by the end of each day.
12. Install the sanitary sewer. All excavated utility trench must be backfilled by the end of each day.
13. Final grade all streets subgrade and shoulder areas for Eckford Park, Overlook Drive, James Street, Leroy Drive, and Ridgeview Avenue.
14. Install curbing along all of Eckford Park, Overlook Drive, James Street, Leroy Drive, and Ridgeview Avenue.
15. Install stone subbase as soon as possible after completing curb. Pave Eckford Park, Overlook Drive, James Street, Leroy Drive, and Ridgeview Avenue with base and binder courses.
16. Begin construction of the homes after stone base on streets is in place. See Project Staging for Individual Lots.
17. Replace topsoil, seed and mulch to stabilize all disturbed areas as possible after each lot or block of homes are completed.
18. Pave Eckford Park, Overlook Drive, James Street, Leroy Drive, and Ridgeview Avenue with wearing course when construction of dwellings is completed.
19. **CSoC: Complete excavation of Basin 8.3 to subgrade of soil media (elev. 474.50) and install 12" planting soil media and wetland plantings. Install permanent seeding to stabilize the surrounding area immediately.**
20. **CSoC: Complete infiltration testing of Basin 8.3. The observed rates must be within 2 and 8 in/hr.**
21. Contact the Cumberland County Conservation District for site inspection prior to removal of any sediment basin.
22. Once all lots within the watershed of Sediment Basin #1 have been completely stabilized, and the Conservation District has approved removal of the sediment basin, remove the sediment basin and stabilize immediately with permanent seeding.
23. **CSoC: Once the Conservation District has approved removal of Sediment Basin #1, convert to the permanent Detention Basin #1. Check the permanent detention basin for stability, size, grade and proper outlet structure after conversion is completed. See Project Staging – Converting Sediment Basin to Detention Basin.**
24. Check site for erosion and repair any damaged areas. All portions of the site shall be stabilized.
25. Remove perimeter compost filter sock, spread compost mulch around any disturbed areas and remove any other sediment controls once all disturbed areas are completely stabilized.
26. A final critical stage inspection shall be performed by the site's engineer to verify all previously installed PCSM BMPs are still functioning as designed and not impacted by construction activities.
27. Upon completion of the project a completed Notice of Termination (N.O.T.) shall be submitted to the department and/or Conservation District Staff so a final inspection can be performed to ensure stabilization and verify adequate installation and function of BMPs.

*** CSoC: Critical Stage of Construction**

Project Staging – Individual Lots

Each lot will be staged in the following order:

1. Install stabilized construction entrance.
2. Install silt filter sock as shown on plan.
3. Rough grade lot and stabilize immediately with temporary seeding.
4. Excavate for dwelling foundation. Place excess soil on designated soil stockpile location. Install silt filter sock below the stockpile.
5. Construct dwelling.
6. Connect utilities.
7. Install sidewalk along frontage of lot.
8. Pave driveway.
9. Final grade lot and stabilize immediately with permanent stabilization.
10. Remove silt filter sock once all disturbed areas are stabilized.

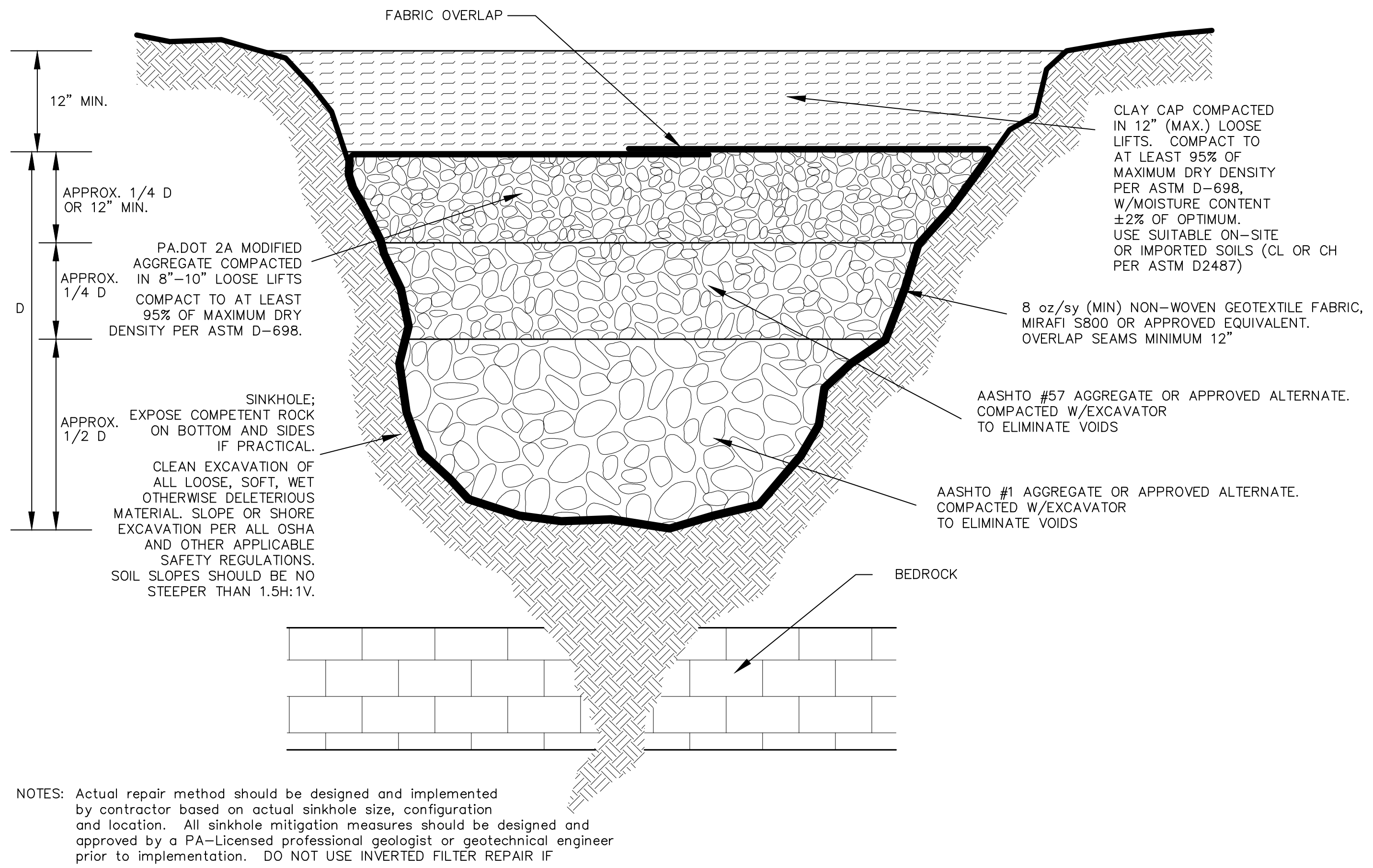
Project Staging – Converting Sediment to Detention Basin

Once the Conservation District has approved removal of the Sediment Basin, convert to the Permanent Detention Basin as follows:

1. Stabilize the emergency spillway with geotextile and rip–rap immediately. Stabilize any other disturbed areas immediately with permanent seeding.
2. Remove the temporary riser pipe. Dispose of properly or store for reuse.
3. Remove baffles and cleanout stakes from the basin bottom. Dispose of properly or store for reuse.
4. Remove temporary floating skimmers. Dispose of properly or store for reuse. Remove any grout used to seal skimmers into inlets.
5. Remove any sediment from the basin outlet pipes.
6. Remove stainless steel orifice plate used to attach the floating skimmers to the inlets. Stainless steel orifice plates were used to cover the 24"wide x 12"high rectangular orifices in the basin outlet structures required for the permanent basin configuration.
7. Bring grade up the permanent detention basin elevation and stabilize immediately with permanent seeding and mulch.
8. Install stone filter ring around the basin outlet structure to protect from sedimentation. Once the basin bottom is completely stabilized, remove stone filter ring and stabilize disturbed area immediately with permanent seeding and mulch.

Project Staging – Water Main Installation

Install water main by means of directional drilling. Drill pads shall have appropriate erosion and sedimentation controls and be stabilized upon cessation of activity.

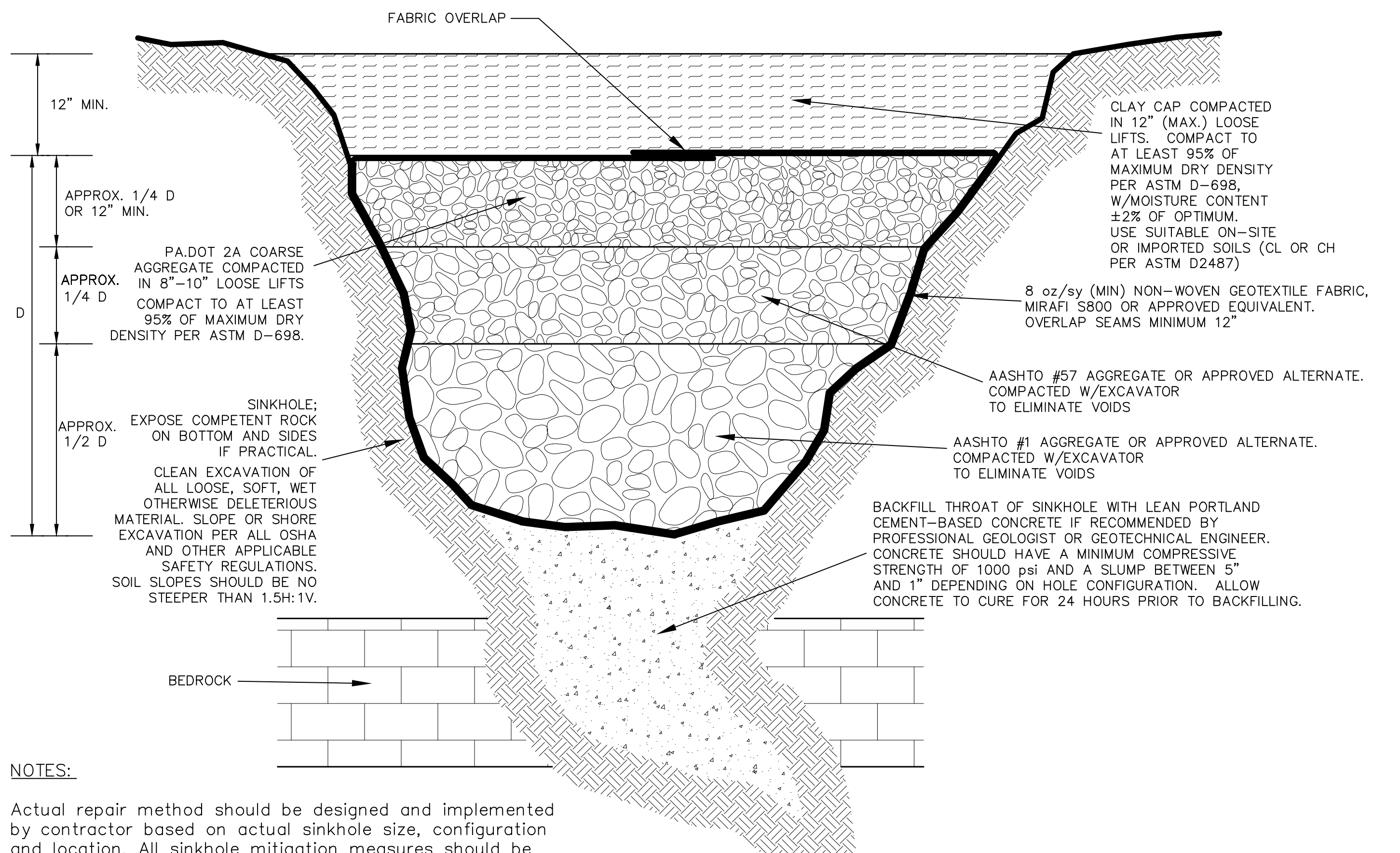


FABRIC OVERLAP
12" MIN.
APPROX. 1/4 D OR 12" MIN.
APPROX. 1/4 D
D
APPROX. 1/2 D
PA.DOT 2A MODIFIED AGGREGATE COMPACTED IN 8"–10" LOOSE LIFTS
COMPACT TO AT LEAST 95% OF MAXIMUM DRY DENSITY PER ASTM D–698.
SINKHOLE; EXPOSE COMPETENT ROCK ON BOTTOM AND SIDES IF PRACTICAL.
CLEAN EXCAVATION OF ALL LOOSE, SOFT, WET OTHERWISE DELETERIOUS MATERIAL. SLOPE OR SHORE EXCAVATION PER ALL OSHA AND OTHER APPLICABLE SAFETY REGULATIONS. SOIL SLOPES SHOULD BE NO STEEPER THAN 1.5H:1V.
CLAY CAP COMPACTED IN 12" (MAX.) LOOSE LIFTS. COMPACT TO AT LEAST 95% OF MAXIMUM DRY DENSITY PER ASTM D–698, W/MOISTURE CONTENT ±2% OF OPTIMUM. USE SUITABLE ON–SITE OR IMPORTED SOILS (CL OR CH PER ASTM D2487)
8 oz/sy (MIN) NON–WOVEN GEOTEXTILE FABRIC, MIRAFI S800 OR APPROVED EQUIVALENT. OVERLAP SEAMS MINIMUM 12"
AASHTO #57 AGGREGATE OR APPROVED ALTERNATE. COMPACTED W/EXCAVATOR TO ELIMINATE VOIDS
AASHTO #1 AGGREGATE OR APPROVED ALTERNATE. COMPACTED W/EXCAVATOR TO ELIMINATE VOIDS
BEDROCK

NOTES: Actual repair method should be designed and implemented by contractor based on actual sinkhole size, configuration and location. All sinkhole mitigation measures should be designed and approved by a PA–Licensed professional geologist or geotechnical engineer prior to implementation. DO NOT USE INVERTED FILTER REPAIR IF TOP OF ROCK IS NOT EXPOSED AT THE BASE OF THE REPAIR.

A / ES–5 **SINK HOLE REPAIR DETAIL - NO THROAT ENCOUNTERED**

NOT TO SCALE



FABRIC OVERLAP
12" MIN.
APPROX. 1/4 D OR 12" MIN.
APPROX. 1/4 D
D
APPROX. 1/2 D
PA.DOT 2A COARSE AGGREGATE COMPACTED IN 8"–10" LOOSE LIFTS
COMPACT TO AT LEAST 95% OF MAXIMUM DRY DENSITY PER ASTM D–698.
SINKHOLE; EXPOSE COMPETENT ROCK ON BOTTOM AND SIDES IF PRACTICAL.
CLEAN EXCAVATION OF ALL LOOSE, SOFT, WET OTHERWISE DELETERIOUS MATERIAL. SLOPE OR SHORE EXCAVATION PER ALL OSHA AND OTHER APPLICABLE SAFETY REGULATIONS. SOIL SLOPES SHOULD BE NO STEEPER THAN 1.5H:1V.
BEDROCK
CLAY CAP COMPACTED IN 12" (MAX.) LOOSE LIFTS. COMPACT TO AT LEAST 95% OF MAXIMUM DRY DENSITY PER ASTM D–698, W/MOISTURE CONTENT ±2% OF OPTIMUM. USE SUITABLE ON–SITE OR IMPORTED SOILS (CL OR CH PER ASTM D2487)
8 oz/sy (MIN) NON–WOVEN GEOTEXTILE FABRIC, MIRAFI S800 OR APPROVED EQUIVALENT. OVERLAP SEAMS MINIMUM 12"
AASHTO #57 AGGREGATE OR APPROVED ALTERNATE. COMPACTED W/EXCAVATOR TO ELIMINATE VOIDS
AASHTO #1 AGGREGATE OR APPROVED ALTERNATE. COMPACTED W/EXCAVATOR TO ELIMINATE VOIDS
BACKFILL THROAT OF SINKHOLE WITH LEAN PORTLAND CEMENT–BASED CONCRETE IF RECOMMENDED BY PROFESSIONAL GEOLOGIST OR GEOTECHNICAL ENGINEER. CONCRETE SHOULD HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1000 psi AND A SLUMP BETWEEN 5" AND 1" DEPENDING ON HOLE CONFIGURATION. ALLOW CONCRETE TO CURE FOR 24 HOURS PRIOR TO BACKFILLING.

NOTES:

Actual repair method should be designed and implemented by contractor based on actual sinkhole size, configuration and location. All sinkhole mitigation measures should be designed and approved by a PA–Licensed professional geologist or geotechnical engineer prior to implementation. Throat should not be filled with cement if opening should be maintained to continue to convey water movement.

B / ES–5 **SINK HOLE REPAIR DETAIL - THROAT ENCOUNTERED**

NOT TO SCALE

Sheet Number: 40 of 40

Project Number: 15–100–34

Date: APRIL 22, 2024

ARCONA NEIGHBORHOOD 8.3

Lower Allen Twp./Cumberland Co., PA

CHARTER Homes & Neighborhoods

EROSION & SEDIMENTATION CONTROL NOTES

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DATE	REVISIONS
1/6/25	REV. INLET 525 AND CURB LINE PER CHN
11/26/24	REV. PER CHN COMMENTS AND 2:1 SLOPES
10/22/24	REV. PER CHN 10/21/2024 COMMENTS & PAWC
10/10/24	REVISED PER CHN COMMENTS
9/20/24	REV. PER CHN COMMENTS
8/21/24	REV. FOR UPDATED CARTWAY WIDTH AND PARKING
7/16/24	REV. PER CCCD EMAIL DATED 7/16/24

Section Number: ES–5

1/21/2025 12:50 PM L:\15–100–34\SHEETS\PRELIMINARY\40 ES–05.DWG

PRELIMINARY / FINAL