

RAND ROAD & CHESTNUT AVENUE PRELIMINARY ENGINEERING

SECTION 18 TOWNSHIP 42 NORTH RANGE 11 EAST ARLINGTON HEIGHTS, ILLINOIS COOK COUNTY

DEVELOPER / SUBDIVIDER:

Arlington Performance Center
315 W. Rand Road
Arlington Heights, IL 60004
Tel: 847-392-3505

PREPARED BY:

Haeger Engineering LLC
Illinois Prof. Design Firm #184-003152
100 E. State Parkway
Schaumburg, IL 60173
Tel: 847-394-6600
Fax: 847-394-6608
www.haegerengineering.com

VILLAGE OF ARLINGTON HEIGHTS

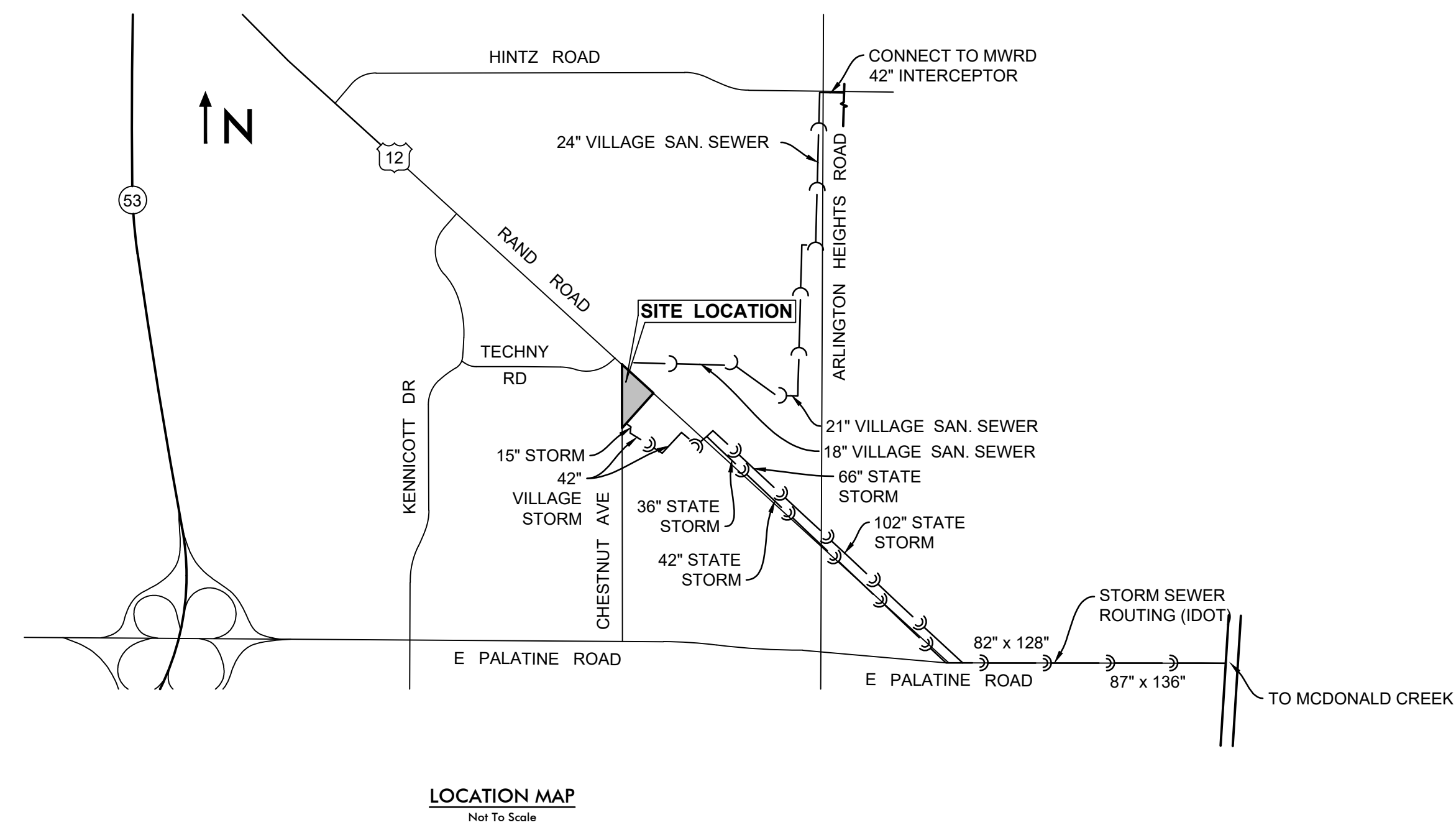
33 S. Arlington Heights Road
Arlington Heights, IL 60005
Tel: 847-368-5000

BENCHMARK

Site Benchmark
CP # 500 (see survey)
Description: Cross Notch
Elevation: 700.25 NAVD 88 (Geoid 12A)

CP # 502 (see survey)
Description: Cross Notch
Elevation: 696.14 NAVD 88 (Geoid 12A)

CP # 503 (see survey)
Description: Cross Notch
Elevation: 702.31 NAVD 88 (Geoid 12A)



LOCATION MAP
Not To Scale

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DRAINAGE CERTIFICATE

To the best of our knowledge and belief, the drainage of surface waters will not be changed by the construction of the proposed development or any part thereof, or, that if drainage will be changed, reasonable provision has been made for collection and diversion of such surface waters into public areas, or drains approved for use by the Municipal Engineer, and that such surface waters are planned for in accordance with generally accepted engineering practices so as to reduce the likelihood of damage to adjoining properties.



EXPIRES 11-30-25

Existing Symbol	Description	Proposed Symbol
	Storm Sewer Manhole	
	Catch Basin	
	Inlet	
	Flared End Section	
	Headwall	
	Area Drain	
	Sanitary Sewer Manhole	
	Clean Out	
	Storm Sewer	
	Storm Sewer Service	
	Perforated Underdrain	
	Sanitary Sewer	
	Sanitary Sewer Service	
	Combined Sewer	
	Force Main	
	Water Main	
	Water Main Service	
	Fire Hydrant	
	Valve Vault	
	Valve Box	
	B-Box	
	Well Head	
	Light Pole	
	Light Pole With Mast Arm	
	Traffic Signal	
	Traffic Signal With Mast Arm	
	Hand Hole	
	Fence	
	Guardrail	
	Pipe Bollard	
	Sign	
	Gas Valve	
	Gas Line	
	Electric Line	
	Fiber Optic Line	
	Electrical Pedestal	
	Electric Manhole	
	Guy Wire	
	Utility Pole	
	Telephone Pedestal	
	Telephone Manhole	
	Telephone Line	
	Cable TV Line	
	Cable TV Pedestal	
	Flagpole	
	Mailbox	
	Handicapped Parking Stall	
	Number of Parking Stalls	
	Curb & Gutter	
	Reverse Pitch Curb & Gutter	
	Depressed Curb	
	Retaining Wall	
	Curb Elevation and Gutter/Pavement Elevation	
	Gutter/Pavement Elevation	
	Pavement Elevation	
	Sidewalk Elevation	
	Ground Elevation	
	Top of Wall Elevation	
	Bottom of Wall Elevation	
	Open Lid Frame & Grate	
	Closed Lid Frame & Lid	
	Finish Grade	
	Garage Floor	
	Top of Foundation	
	Swale	
	Hardscape Flow	
	Softscape Flow	
	Contour Line	
	Wetland	
	Wetland Buffer	
	Normal Water Level	
	High Water Level	
	Flood Plain	
	Flood Way	
	Deciduous Tree	
	Coniferous Tree	
	Bush	
	Brushline	
	Soil Boring	
	Over Land Flow Route	
	Recommended Garage Hand With Driveway Slope	

04-12-2024 Village & IDOT Review
02-16-2024 Village Review
01-10-2024 Village Review
08-31-2023 Village Review

Date	Revision
04-12-2024	4
02-16-2024	3
01-10-2024	2
08-31-2023	1

HAEGER ENGINEERING
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Illinois Professional Design Firm License No. 184-003152
www.haegerengineering.com

TITLE SHEET
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS
ARLINGTON HEIGHTS, ILLINOIS

Project Manager: K.M.L.
Engineer: V.D.R.
Date: 04-20-2023
Project No. 22253
Sheet **C1.0** / C7



Know what's below.
Call before you dig.

Note:
Call 811 at least 48 hours, excluding weekends and holidays, before you dig.

GENERAL NOTES

- 1. Definition of Terms:
a. 'Owner' shall mean the person or entity with which Haeger Engineering, LLC has been contracted with to prepare the Plans and Specifications.
b. 'Engineer' shall mean Haeger Engineering, LLC.
c. 'Contractor' shall mean the persons or entities responsible for performing and constructing the work...
2. The Specifications governing this project are as follows:
a. All applicable Village/City and other applicable Jurisdictional Agency Ordinances, Codes, Regulations, Requirements, Policies, Specifications, Standards, etc.
3. Contract Documents:
a. The Engineer's Plans and Specifications shall be included as part of the Contract Documents.
4. Should any apparent errors, omissions, discrepancies or conflicts be discovered on the Plans, Specifications, Quantities or other Contract Documents by the Contractor, whether prior to or after the award of the contract, the Engineer's attention shall be called to the same before work is begun thereon...

- 5. Whenever the performance of work is indicated on the Plans, and no specific item is included in the Contract for payment, the work shall be considered incidental to the Contract and no additional compensation will be allowed.
6. The base plan/drawing for the Engineering Plans (existing conditions, site topography, utilities, rights-of-way, etc.) was obtained from the topographic survey prepared by:
Haeger Engineering LLC
100 East State Parkway
Schamburg, IL 60193
Tel: 847-394-6600
Project No. 22-235
Date: 2022-12-22
7. The Owner shall obtain the necessary approvals from the following Jurisdictional Agencies:
a. Village/City
b. Metropolitan Water Reclamation District of Greater Chicago (MWRD)
c. Illinois Environmental Protection Agency (IEPA) - Water and Sewer Division
d. Illinois Environmental Protection Agency (IEPA) - Notice of Intent (NOI) General Permit to Discharge Storm Water from Construction Site Activities
e. Illinois Department of Transportation (IDOT)
8. The Contractor, unless otherwise agreed upon in writing with the Owner prior to the start of construction, shall at his own expense, obtain all other approvals including permits, licenses, etc., as may be required for the execution of this work as well as provide all necessary notices, pay all fees required, post bonds, obtain all necessary insurance, and comply with all laws, ordinances, rules, and regulations relating to the work and to the preservation of public health and safety.
9. No work shall proceed until the appropriate permit or permits have been obtained for the item or items to be constructed.
10. The Contractor shall indemnify and hold harmless the Owner, Engineer, Village/City, and other Jurisdictional Agencies as well as all of their respective officers, employees, agents, and Engineers from and against all losses, claims, demands, payments, suits, actions, recoveries, and judgment of every nature and description brought or recovered against them, by reason of any act, error or omission of said Contractor, their agents or employees in the execution of the work or in the guarding of it.
11. The construction shall be under the general inspection and observation of the designated individual authorized by the Village/City or other applicable Jurisdictional Agencies.
12. The location of existing underground utilities such as water mains, sewers, gas lines, electric lines, cable TV lines, fiber optic lines, etc., as shown on the Plans, has been determined from the best available information and has been provided for the convenience of the Contractor.
13. In some instances, the existing utilities are shown on the Plans according to information obtained from the utility companies (after information and/or surveys performed by Others). The Owner and Engineer do not guarantee the accuracy or completeness of this information.
14. The Contractor will be required to cooperate with all utility companies involved in connection with the removal, temporary relocation, construction, reconstruction or abandonment by these companies of

- any and all services or facilities owned or operated by them within the limits or general vicinity of the proposed improvements.
15. Before doing any work which will damage, disturb or leave unsupported, or unprotected any utility lines or related appurtenances encountered, the Contractor shall notify the respective Owner thereof, who will make all arrangements for relocating, adjusting, bracing, or otherwise maintaining or abandoning service on lines that are within the limits of the proposed improvements.
16. No extra compensation will be allowed by the Owner for any work complying with all of these aforementioned utility coordination and cooperation requirements.
17. Prior to commencing work, the Contractor is to field check and verify all critical locations, elevations, materials, sizes, dimensions, and conditions affecting the work, and notify the Engineer immediately if there are any suspected discrepancies.
18. The Contractor shall maintain positive drainage at all times during construction.
19. Prior to commencement of construction, on sites that will ultimately result in the disturbance of one (1) acre or more, the Contractor shall be responsible for obtaining a copy of the notice of coverage letter and the IEPA National Pollutant Discharge Elimination System (NPDES) General Permit ILR10 by the Owner.
20. No construction activities, disturbance or fill shall occur within the limits of natural resources such as wetlands, floodplains, creeks, streams, ponds, lakes, basins, reservoirs, etc.
21. The Contractor shall confine their activities to within the project boundaries, work areas, or easements specified.
22. The Contractor is responsible for returning all areas affected by equipment, materials and/or laborers to pre-construction condition or better.
23. Clean-up and final restoration shall be performed immediately upon completion of each phase of the work or when directed to do so by the Owner.
24. All proposed grades shown on the Plans shall be considered to be finished grade surface elevations unless noted otherwise.
25. Construction staking/layout shall be provided by the Contractor and shall be included in the Contract Price unless otherwise agreed upon in writing with the Owner prior to the start of construction.
26. All construction means and methods, techniques, procedures, scheduling, sequencing, and job site responsibilities shall be the responsibility of the Contractor.
27. The Contractor shall observe and comply with all the Occupational Safety and Health Administration (OSHA) standards, rules and regulations, as well as any other applicable local, state and federal safety requirements.
28. All trenching, shoring, bracing and construction work performed shall be in accordance with the Occupational Safety and Health Administration (OSHA) standards.
29. The Contractor shall take whatever steps necessary to protect the public from open trenches, excavations, and other site obstructions or hazards.
30. All proposed grades shown on the Plans shall be considered to be finished grade surface elevations unless noted otherwise.
31. The Contractor shall clean the premises to the satisfaction of the Village/City and Owner.
32. The Contractor shall have all appropriate equipment and material including street sweepers and end loaders available on-site at all times when equipment or vehicles are using existing public or private roads and/or pavement.
33. Trees not marked for removal shall be protected as necessary by the Contractor.
34. Where overhanging branches, limbs, or roots interfere with the required construction activities, said branches and roots shall be removed or pruned as necessary in accordance with Section 201 of the IDOT Standard Specifications.
35. The Contractor is responsible for the installation and maintenance of adequate signs, traffic control devices, and warning devices, in accordance with the Plans, applicable IDOT Standard Specifications and the MUTCD Standards to inform and protect the public during all phases of the project.
36. Where noted in the Plans, the Contractor shall have Shop Drawings and any other required supporting documentation or calculations prepared and submitted for review and approval prior to any fabrication,

DEMOLITION AND CLEARING

- 1. The Contractor shall perform all demolition, clearing, grubbing, and tree removal and protection work in accordance with all applicable Federal, State, County and Local requirements or as noted in the Plans.
2. Prior to the commencement of any demolition or clearing activities, the Owner or Contractor shall obtain all applicable permits to disconnect the existing utility services to each building proposed for demolition or clearing.
3. The Contractor shall coordinate all demolition work with the Village/City, utility companies, and other Jurisdictional Agencies, so as to ensure the protection of all existing sewer, water main, and other utilities, and further to ensure that proper stormwater conveyance is attained until the proposed improvements can be installed and placed into operation.
4. Clearing shall consist of the removal and legal disposal of all obstructions such as trees, hedges, fences, walls, accumulations of rubbish of whatever nature, and all logs, shrubs, brush, grass, weeds, and other vegetation and stumps.
5. Existing utilities to be disconnected shall be done so at the main or as directed by the applicable Jurisdictional Agency or as noted on the Plans.
6. Existing utilities to be disconnected shall be done so at the main or as directed by the applicable Jurisdictional Agency or as noted on the Plans.
7. Utilities marked to be abandoned shall be abandoned as required by the applicable Jurisdictional Agency or as noted on the Plans.
8. All existing pavement or concrete to be removed shall be saw-cut along the limits of the proposed removal to provide a clean vertical edge.
9. All voids left by any item removed under any proposed building, pavement walk and other structural areas or within zones of influence thereof shall be properly backfilled with suitable backfill material and/or compacted as necessary by the Contractor.
10. The Contractor shall implement a daily program for dust control as it relates to the demolition and clearing activities.
11. All existing building services serving buildings that are to be removed shall be disconnected and removed as required by the applicable Jurisdictional Agency.
12. All existing wells shown on the Plans to be abandoned or that are discovered during the course of construction shall be exposed and cut-off three (3) feet below the proposed finished grade and sealed by the Contractor in accordance with Section 920 of the "Illinois Water Well Construction Code", latest edition, or as required by the Health Department or by any other Local, County, State, or Federal rules and regulations.
13. All existing septic tanks, grease traps or similar shown on the Plans to be abandoned or that are discovered during the course of construction shall have all liquids and solids removed and disposed of legally off-site by a licensed commercial waste hauler in accordance with the requirements of the Health Department or as required by any Local, County, State or Federal rules and regulations.
14. Any material containing asbestos or other hazardous materials found within existing structures or other items shown to be removed in order to construct the proposed improvements shall be removed from the site and legally disposed of off-site by the Contractor in accordance with applicable County, State or Federal rules or regulations.
15. All fire access lanes or routes located within the existing project area shall remain in service, clean of debris, and accessible for use by emergency vehicles at all times while demolition and clearing work is being performed.
16. It shall be the responsibility of the Contractor to legally remove from the site any and all materials and debris which results from their demolition or clearing operations at no additional expense to the Owner. Burning or incineration on the site is not permitted.

EARTHWORK AND GRADING

- 1. All earthwork and grading activities shall be performed in accordance with the IDOT Standard Specifications or as noted in the Plans.
2. All earthwork quantities, calculations, summaries that have been furnished by the Engineer are for information purposes only and are provided without any guarantee by the Owner or Engineer whatsoever as to their sufficiency or accuracy.
3. The soil boring reports for the subject property can be obtained from the Owner.
4. The initial establishment of soil erosion and sediment control measures such as the placement of erosion control silt fence, stabilized construction entrance, inlet protection, etc. shall be installed by the Contractor prior to the start of demolition, clearing and mass grading.
5. All earthwork and grading operations shall be supervised and inspected by a qualified Geotechnical/Soils Engineer or their designated representative.
6. A qualified Geotechnical/Soils Engineer or their designated representative shall observe the construction of the retention and detention areas including berming to ensure the areas will be capable of holding the designated normal and high water levels.
7. Topsoil stripping or excavation shall initially consist of the removal of the uppermost layers of organic soil and stockpiling at a location shown on the Plans, in another area deemed appropriate by the Contractor and approved by the Owner, or at a location specified by the Owner or Engineer.
8. Stripping of vegetation or ground cover, erosion, or other soil disturbance activities shall be done in a manner which will minimize soil grading. Further, the disturbance shall be kept to a minimum and all disturbed areas shall be stabilized with temporary or permanent measures within fourteen (14) days of active hydrologic disturbance or re-disturbance.

- 9. The Contractor shall take precautionary measures to minimize earthwork and other activities in the areas where trees are to be saved or protected as to not cause injury to roots or trunks.
10. Embankment placement including preparation of existing ground to embankment placement and compaction shall be in accordance with Section 205 of the IDOT Standard Specifications.
11. Topsoil spread shall consist of placing a minimum of a four (4) inch layer of topsoil or depth indicated on the Plans over the disturbed unpaved areas within the construction limits.
12. Sod shall be placed on all disturbed areas within the right-of-way and at other locations indicated on the Plans.
13. Refer to the Landscape Plans prepared by Others for additional information on the landscaping and ground cover requirements.
14. Completed subgrade grading and final finished grading for all proposed improvements shall be within a tolerance of plus or minus one-half (1/2) foot of the design elevation.
15. All vertical curve Specifications or other Contract Documents shall be guaranteed against all defects in materials and workmanship of whatever nature by the Contractor and his surety for a minimum period of 12 months from the date of final acceptance of the work by the Village/City, other applicable Jurisdictional Agencies, and the Owner, unless otherwise agreed upon in writing with the Owner prior to the start of construction.
16. The Contractor shall coordinate all demolition work with the Village/City, utility companies, and other Jurisdictional Agencies, so as to ensure the protection of all existing sewer, water main, and other utilities, and further to ensure that proper stormwater conveyance is attained until the proposed improvements can be installed and placed into operation.
17. It shall be the responsibility of the Contractor to legally remove from the site any and all materials and debris which results from their construction operations at no additional expense to the Owner. Burning or incineration on the site is not permitted.

SEWER AND WATER MAIN GENERAL NOTES

- 1. All sanitary sewers, storm sewers and water mains as well as their services and other related appurtenances shall be constructed and tested in accordance with the "Standard Specifications for Water and Sewer Construction in Illinois", latest edition, the requirements of the applicable Jurisdictional Agency, and the applicable Typical Details.
2. Rough grading shall be within one (1) foot of finished subgrade elevation shall be completed prior to the construction of the underground utility construction.
3. Trench excavation, bedding and backfill, and compaction for sanitary sewers, storm sewers, water mains as well as their services and other related appurtenances shall be in accordance with applicable Trench Section Details.
4. When in the opinion of the Geotechnical/Soils Engineer, unsuitable soil conditions are encountered within utility trenches which require the removal of unsuitable material below the depth of the bedding specified, the Contractor shall remove the unsuitable soils and replace the material with granular compacted bedding material as directed by the Geotechnical/Soils Engineer, Village/City or other applicable Jurisdictional Agency.
5. All utility trenches for the proposed sanitary sewer, storm sewer, water main and services lying under or adjacent to the street edge of the pavement shall be within two (2) feet of any pavement area, curb, curb and gutter stabilized shoulder, sidewalk, building, utility crossing or other structural area shall be backfilled with select granular backfill material and compacted as noted on the Plans.
6. The Contractor shall be responsible for dewatering any excavation for the installation of sanitary sewers, storm sewers, water mains as well as their services and other related appurtenances.
7. Connections to an existing sewer main shall be to an existing service stub, wye, tee, or manhole where possible.
8. Circular saw-cut of sewer main by proper tools ("sheever-tap" machine or similar) and proper installation of a suitable hub-wye saddle or hub-tee saddle.
9. "Band-Seal" or similar flexible type couplings shall be used in the connection of sewer pipe of dissimilar diameters.
10. The Contractor shall mark the locations of the ends of the service stubs with 4"x4" wood posts extending a minimum of three (3) feet above the ground.
11. All structures including but not limited to frames and lids, greases, cleanouts, b-boxes, etc. shall be adjusted as necessary by the Contractor to final finished grade elevations.
12. All sanitary sewers, storm sewers, water mains as well as their services and other related appurtenances shall be thoroughly cleaned to the satisfaction of the Village/City, Owner, and Engineer as necessary during construction, prior to inspection and testing, and at the end of the project.
13. The Contractor shall coordinate the testing and televising so that it can be witnessed by the applicable Jurisdiction Agency.
14. The cost of the cleaning, televising, and testing shall be considered incidental to the Contract.
15. All deficiencies and defects observed as well as any necessary corrective work required as the result of testing or television inspection shall be performed by the Contractor at no additional cost to the Owner.
16. Refer to Sanitary Sewer, Storm Sewer, Water Main and Water Main Protection Requirements for additional requirements.

SANITARY SEWER

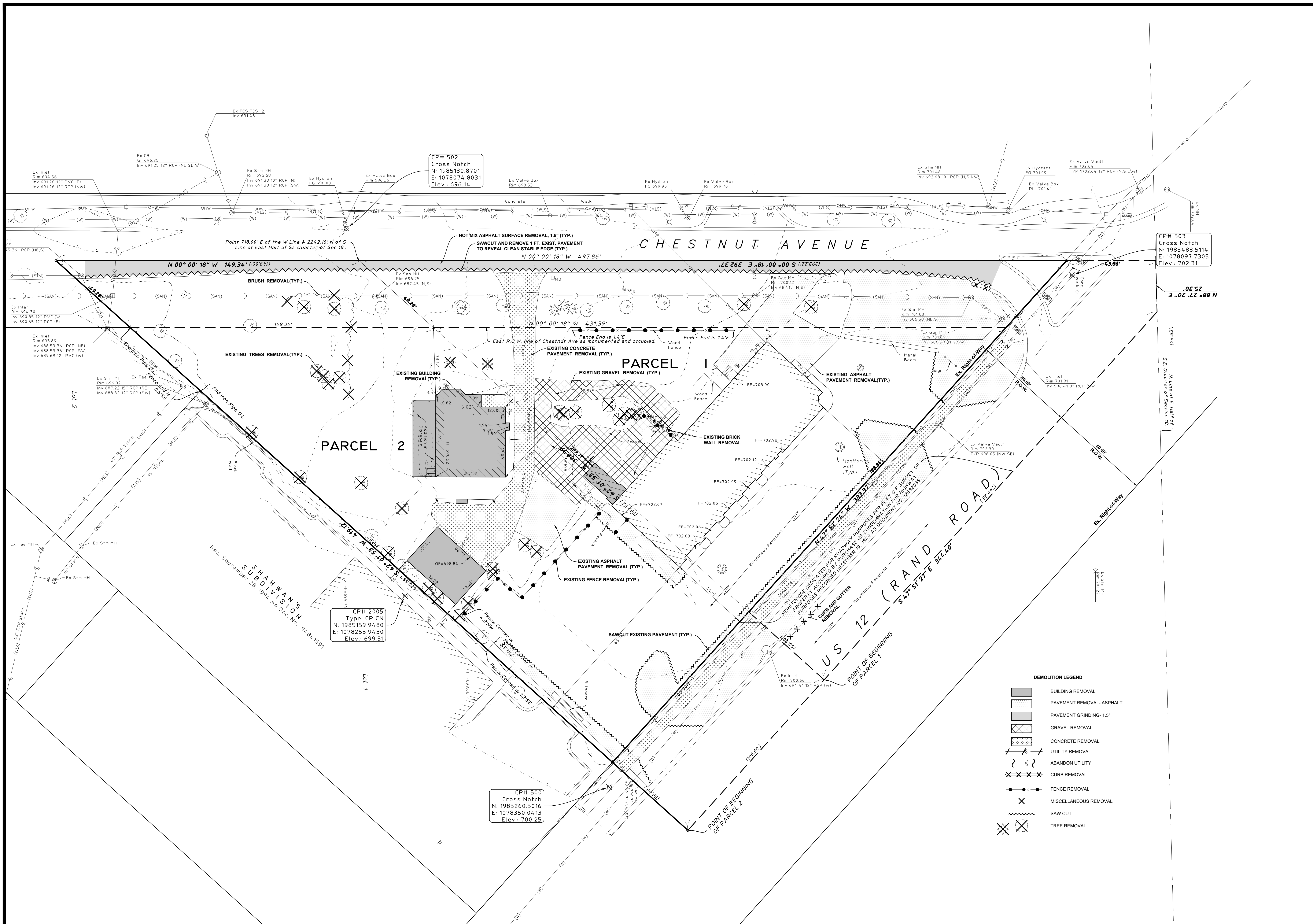
- 1. Refer to Sewer and Water Main General Notes for additional requirements.
2. Gravity Sanitary Sewer Pipe shall be constructed from one or more of the following materials as specified on the Plans:
a. Polyvinyl Chloride (PVC) Pipe conforming to ASTM D3034 with a Standard Dimension Ratio (SDR) of 26 unless noted otherwise on the Plans with elastomeric gasket joints conforming to ASTM D5212 and F477.
b. Ductile Iron Pipe (DIP), Class 52, conforming to ANSI A21.51 and AWWA C151 with rubber gasket joints conforming to ANSI A21.11 and AWWA C111.
3. Where water main quality pipe and joints are required to meet the water main protection requirements the sanitary sewer pipe shall be constructed from one or more of the following materials as specified on the Plans:
a. Polyvinyl Chloride (PVC) Pipe conforming to ASTM D2241 with a Standard Dimension Ratio (SDR) of 26 unless noted otherwise on the Plans with elastomeric gasket joints conforming to ASTM D5212 and F477.
b. Ductile Iron Pipe (DIP), Class 52, conforming to ANSI A21.51 and AWWA C151 with rubber gasket joints conforming to ANSI A21.11 and AWWA C111.
4. All sanitary manholes shall be constructed of precast reinforced concrete sections with tongue and groove joints conforming to ASTM C478 and shall have a minimum inside diameter of 48-inches.
5. External chimney seals shall be provided on all sanitary manholes and all sanitary manholes shall be watertight.

- Sanitary manhole frames and lids shall be Neenah R-1713 with Type B, self-sealing, watertight lids with concealed pick holes or approved equal, unless noted otherwise in the Plans.
2. Manhole steps shall be furnished and installed in all Sanitary and Storm structures in accordance with the "Standard Specifications for Water and Sewer Construction", latest edition and as shown on the Plans.
3. The minimum cover over sanitary sewer lines and services shall be three (3) feet.
4. The minimum sanitary service line size shall be 6-inch diameter pipe at a 1.0% minimum slope.
5. Sanitary sewers shall be installed where the mainline sewer depth is greater than twelve (12) feet or in locations indicated on the Plans.
6. Sanitary sewers and related appurtenances shall be tested and televised in accordance with the following:
a. All sanitary sewers shall be tested for acceptability by either an air test, infiltration of water test, or exfiltration of water test or a combination thereof in accordance with the "Standard Specifications for Water and Sewer Construction", latest edition or in accordance with the requirements of the Village/City or applicable Jurisdictional Agency, whichever is more restrictive.
b. All flexible pipe sanitary sewers shall be deflection tested in accordance with the "Standard Specifications for Water and Sewer Construction", latest edition or in accordance with the requirements of the Village/City or applicable Jurisdictional Agency, whichever is more restrictive.
c. All sanitary manholes shall be tested for watertightness using a leakage test in accordance with ASTM C969 - "Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines" or ASTM C1244 - "Standard Test Method for Concrete Sewer Manholes by the Negative Pressure (Vacuum) Test Prior to Backfill".
d. The Contractor shall televise all newly constructed sanitary sewers in accordance with applicable Jurisdictional Agency requirements prior to the completion of the project and final acceptance.
7. External grease traps, if applicable, shall be provided in accordance with the Jurisdictional Agency requirements at the locations shown on Plans. Contractor shall submit shop drawings for review and approval prior to ordering or fabricating the grease trap.
8. Sanitary sewers and related appurtenances shall be tested and televised in accordance with the following:
a. All sanitary sewers shall be tested for acceptability by either an air test, infiltration of water test, or exfiltration of water test or a combination thereof in accordance with the "Standard Specifications for Water and Sewer Construction", latest edition or in accordance with the requirements of the Village/City or applicable Jurisdictional Agency, whichever is more restrictive.
b. All flexible pipe sanitary sewers shall be deflection tested in accordance with the "Standard Specifications for Water and Sewer Construction", latest edition or in accordance with the requirements of the Village/City or applicable Jurisdictional Agency, whichever is more restrictive.
c. All sanitary manholes shall be tested for watertightness using a leakage test in accordance with ASTM C969 - "Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines" or ASTM C1244 - "Standard Test Method for Concrete Sewer Manholes by the Negative Pressure (Vacuum) Test Prior to Backfill".
d. The Contractor shall televise all newly constructed sanitary sewers in accordance with applicable Jurisdictional Agency requirements prior to the completion of the project and final acceptance.
9. A copy of the inspection video shall be provided to the applicable Jurisdictional Agency and the Engineer for review.

GENERAL NOTES AND SPECIFICATIONS
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS
ARLINGTON HEIGHTS, ILLINOIS
Project Manager: K M L
Engineer: V D R
Date: 04-20-2023
Project No. 22253
Sheet C2.0 of C7
Haeger Engineering consulting engineers land surveyors
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Illinois Professional Design Firm License No. 184-003182
www.haegerengineering.com



Scale: 1" = 20'



No.	Date	Revision
1	04-12-2024	Village & IDOT Review
2	02-16-2024	Village Review
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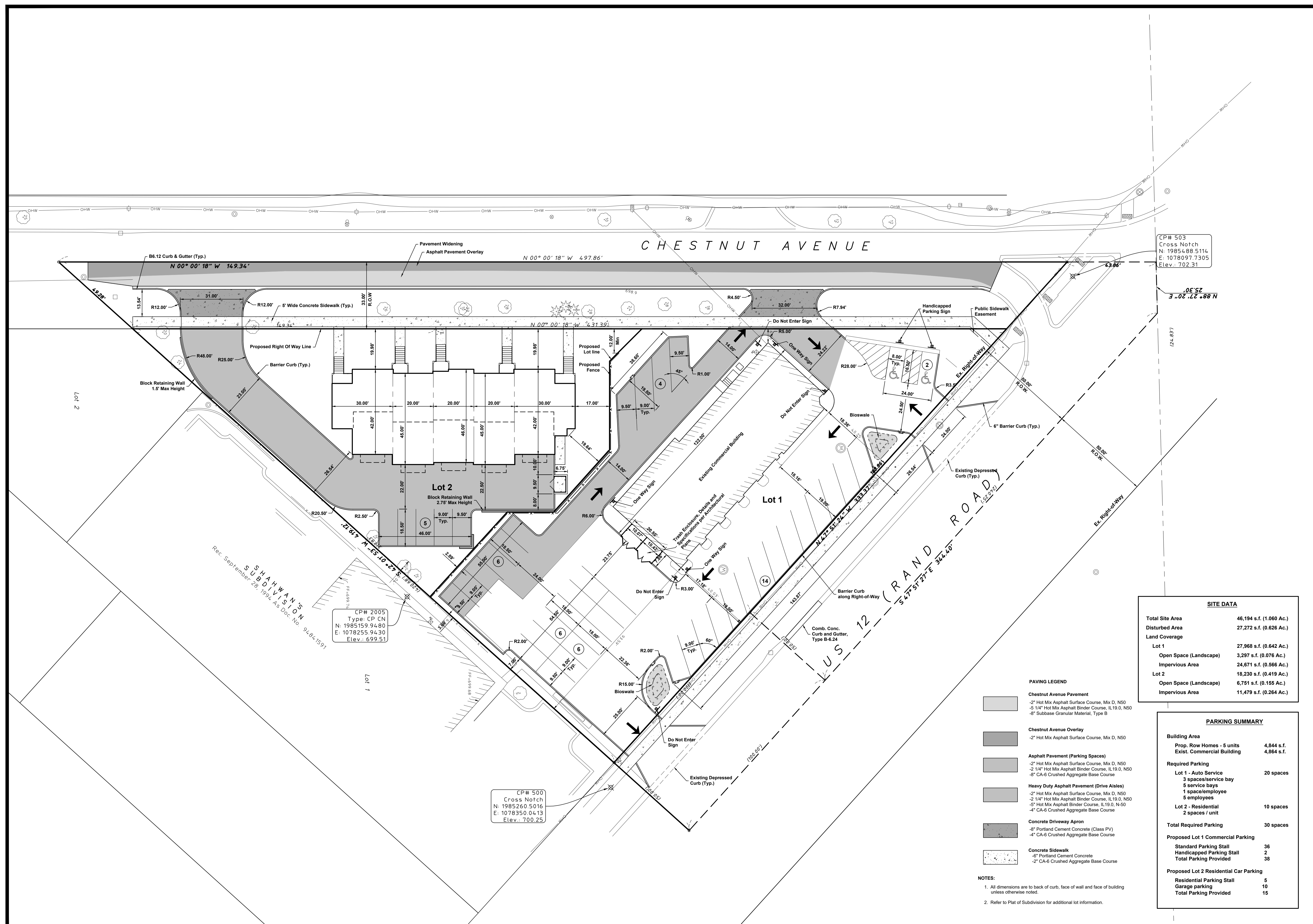
HAEGER ENGINEERING
 consulting engineers • land surveyors
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 Illinois Professional Design Firm License No. 184-003132
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EXISTING CONDITIONS AND DEMOLITION
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS
 ARLINGTON HEIGHTS, ILLINOIS

Project Manager: K.M.L
 Engineer: V.D.R
 Date: 04-20-2023
 Project No. 22253
 Sheet **C3.0** / C7



Scale: 1" = 20'



CP# 503
Cross Notch
N: 1985488.5114
E: 1078097.7305
Elev.: 702.31

CP# 2005
Type: CP CN
N: 1985159.9480
E: 1078255.9430
Elev.: 699.51

CP# 500
Cross Notch
N: 1985260.5016
E: 1078350.0413
Elev.: 700.25

Rec. September 28, 1994 As Doc. No. 94841591
SHAHWAN'S
SUBDIVISION

SITE DATA	
Total Site Area	46,194 s.f. (1.060 Ac.)
Disturbed Area	27,272 s.f. (0.626 Ac.)
Land Coverage	
Lot 1	27,968 s.f. (0.642 Ac.)
Open Space (Landscape)	3,297 s.f. (0.076 Ac.)
Impervious Area	24,671 s.f. (0.566 Ac.)
Lot 2	18,230 s.f. (0.419 Ac.)
Open Space (Landscape)	6,751 s.f. (0.155 Ac.)
Impervious Area	11,479 s.f. (0.264 Ac.)

PAVING LEGEND	
	Chestnut Avenue Pavement -2" Hot Mix Asphalt Surface Course, Mix D, N50 -5 1/4" Hot Mix Asphalt Binder Course, IL19.0, N50 -8" Subbase Granular Material, Type B
	Chestnut Avenue Overlay -2" Hot Mix Asphalt Surface Course, Mix D, N50
	Asphalt Pavement (Parking Spaces) -2" Hot Mix Asphalt Surface Course, Mix D, N50 -2 1/4" Hot Mix Asphalt Binder Course, IL19.0, N50 -8" CA-6 Crushed Aggregate Base Course
	Heavy Duty Asphalt Pavement (Drive Aisles) -2" Hot Mix Asphalt Surface Course, Mix D, N50 -2 1/4" Hot Mix Asphalt Binder Course, IL19.0, N50 -5" Hot Mix Asphalt Binder Course, IL19.0, N-50 -4" CA-6 Crushed Aggregate Base Course
	Concrete Driveway Apron -8" Portland Cement Concrete (Class PV) -4" CA-6 Crushed Aggregate Base Course
	Concrete Sidewalk -6" Portland Cement Concrete -2" CA-6 Crushed Aggregate Base Course

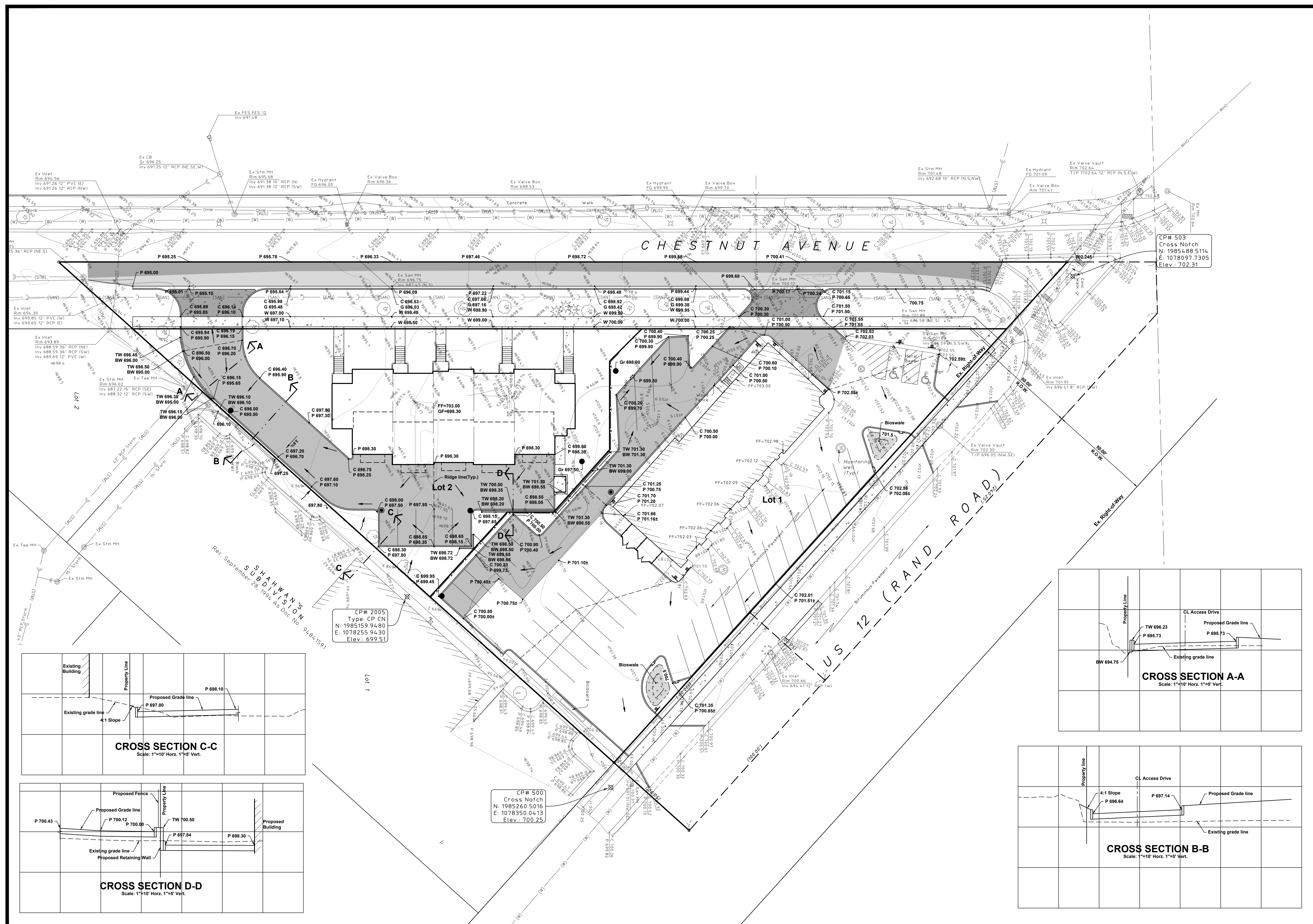
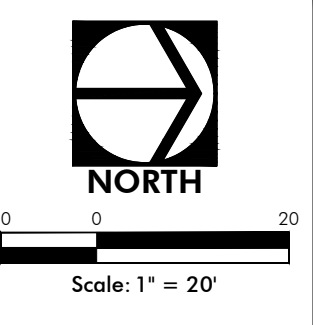
PARKING SUMMARY	
Building Area	
Prop. Row Homes - 5 units	4,844 s.f.
Exist. Commercial Building	4,864 s.f.
Required Parking	
Lot 1 - Auto Service	20 spaces
3 spaces/service bay	
5 service bays	
1 space/employee	
5 employees	
Lot 2 - Residential	10 spaces
2 spaces / unit	
Total Required Parking	30 spaces
Proposed Lot 1 Commercial Parking	
Standard Parking Stall	36
Handicapped Parking Stall	2
Total Parking Provided	38
Proposed Lot 2 Residential Car Parking	
Residential Parking Stall	5
Garage parking	10
Total Parking Provided	15

- NOTES:**
- All dimensions are to back of curb, face of wall and face of building unless otherwise noted.
 - Refer to Plat of Subdivision for additional lot information.

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GEOMETRY AND PAVING PLAN
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS
ARLINGTON HEIGHTS, ILLINOIS

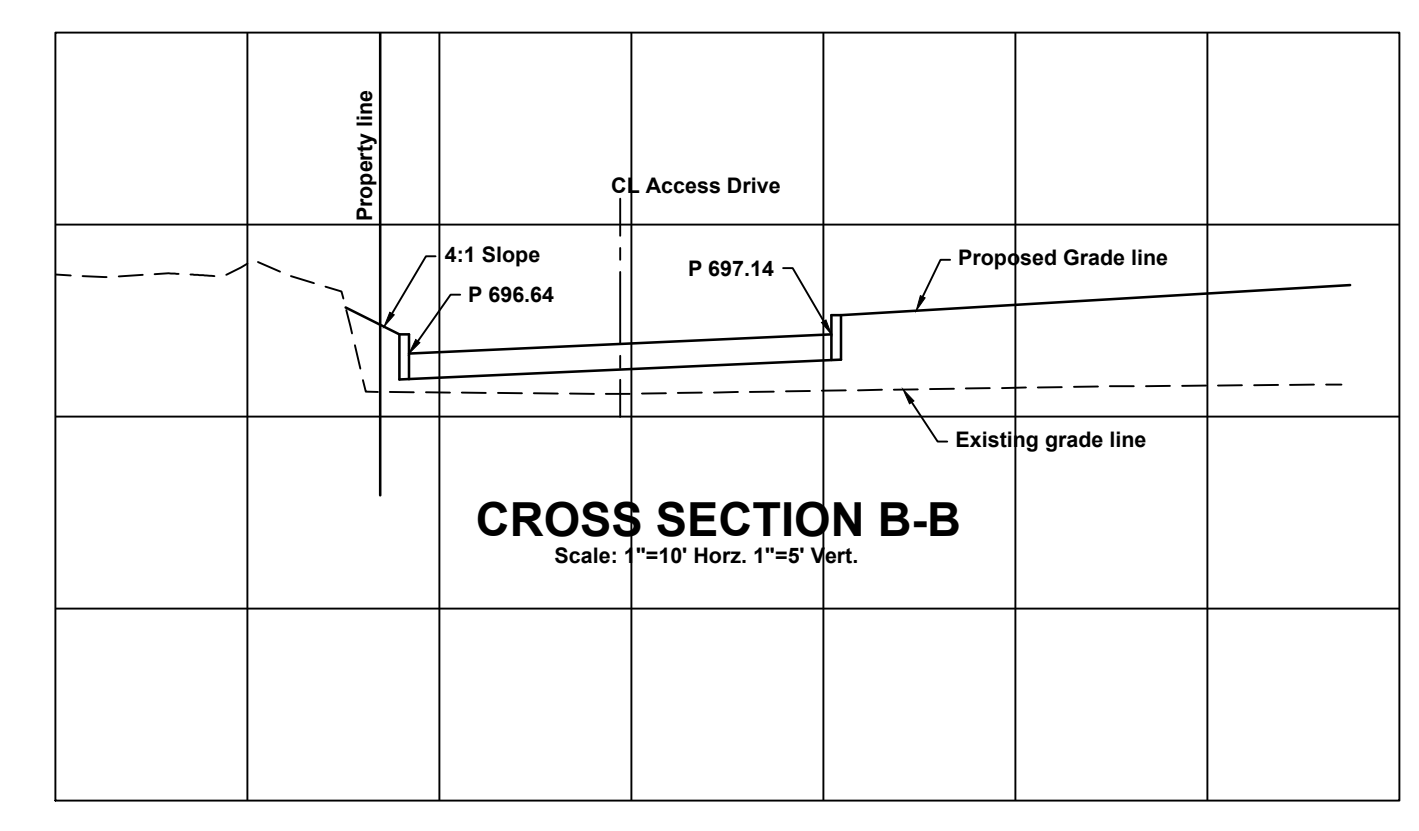
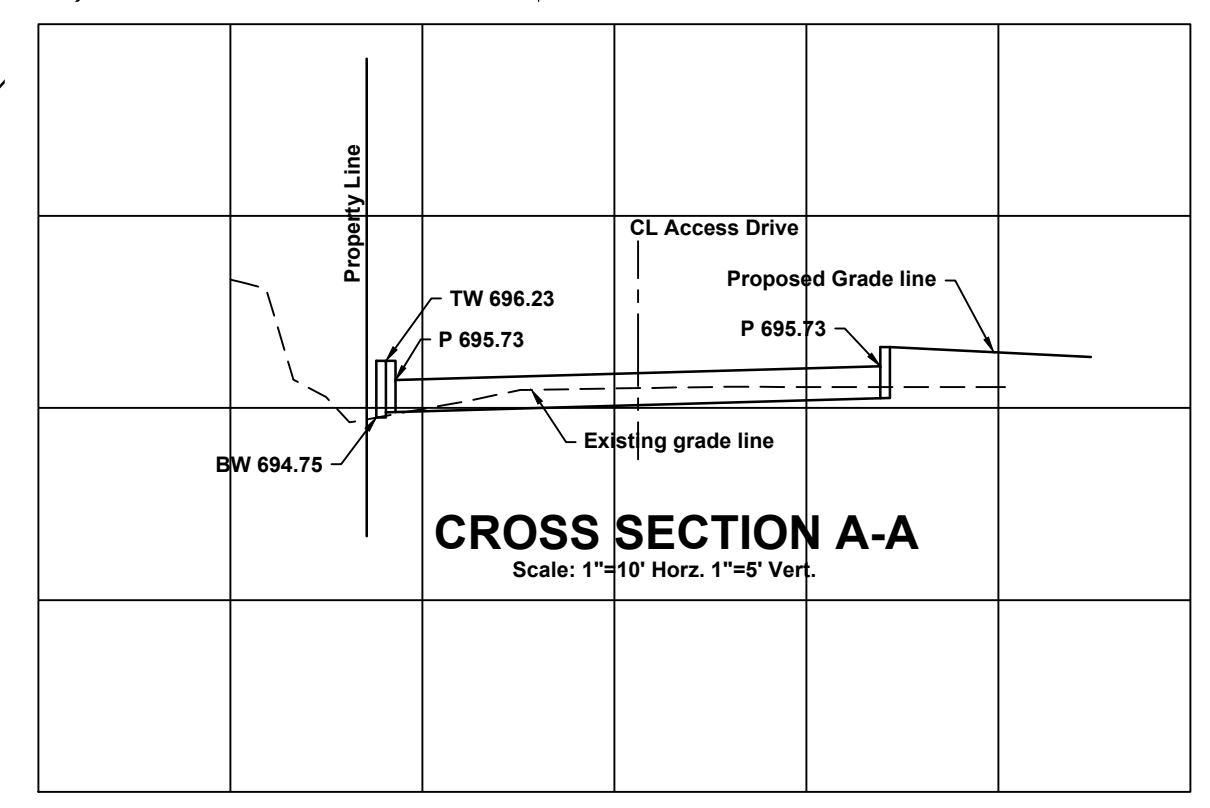
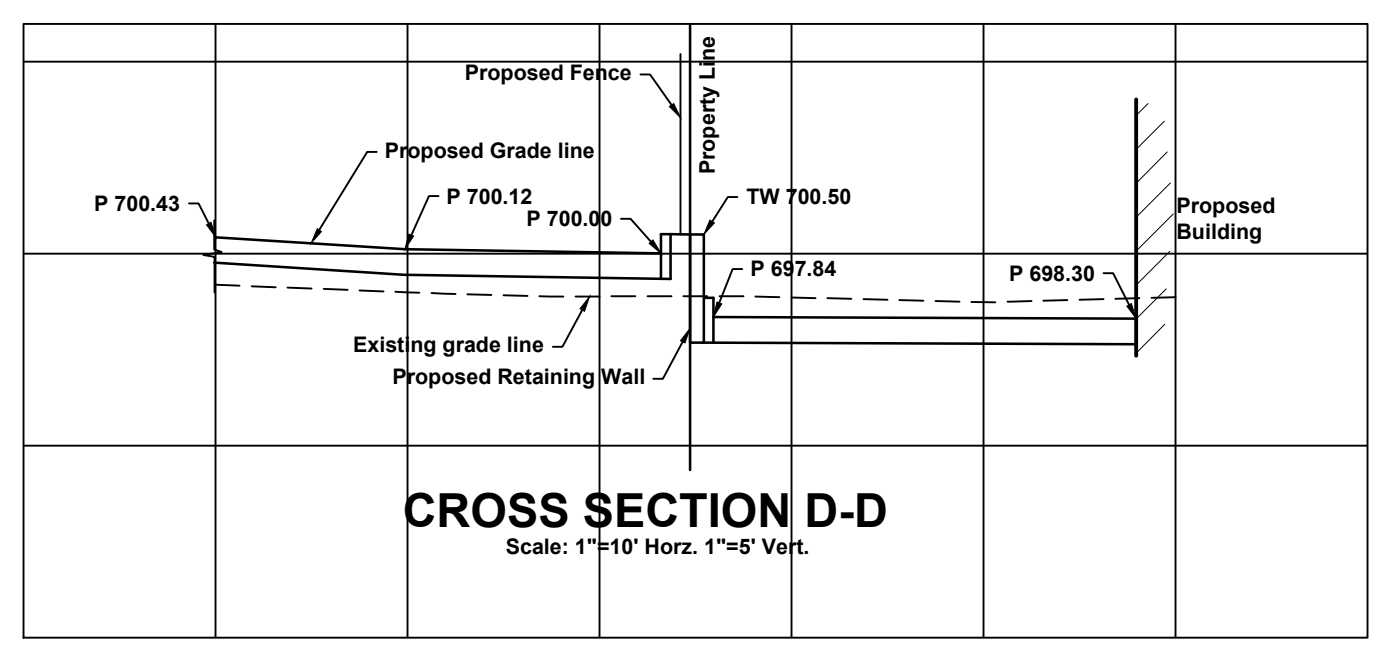
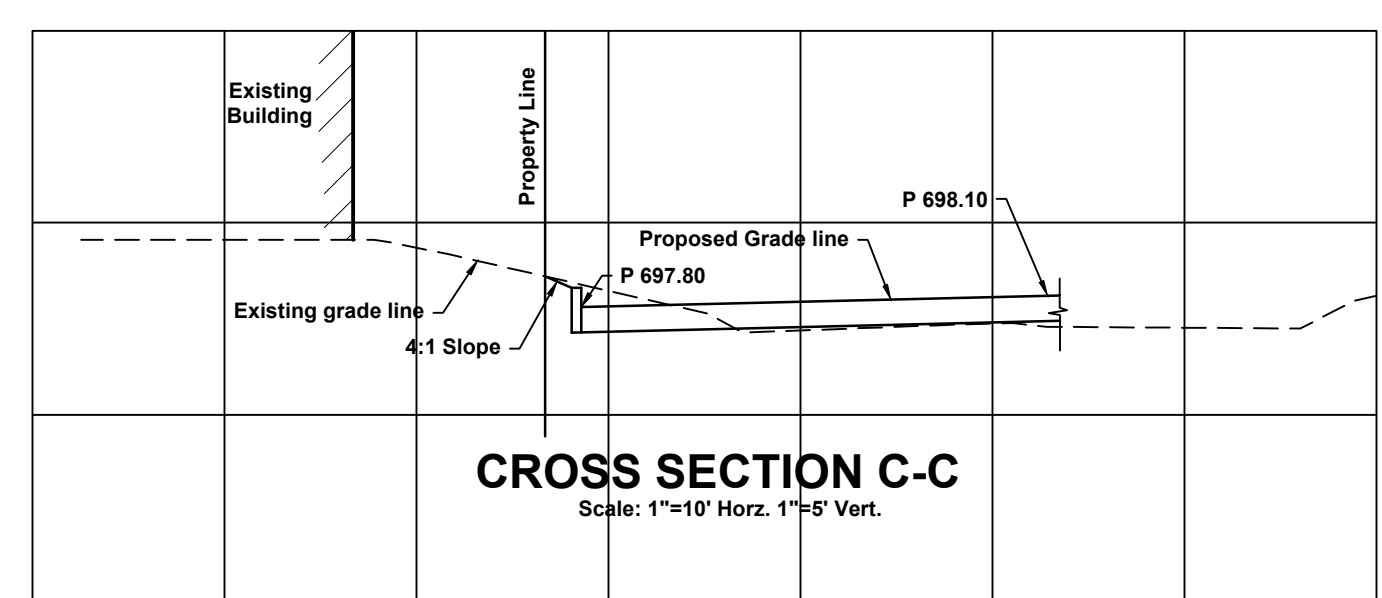
Project Manager: K M L
Engineer: V D R
Date: 04-20-2023
Project No. 22253
Sheet **C4.0** / C7



CP# 503
Cross Notch
N: 1985488.5114
E: 1078097.7305
Elev.: 702.31

CP# 2005
Type: CP CN
N: 1985159.9480
E: 1078255.9430
Elev.: 699.51

CP# 500
Cross Notch
N: 1985260.5016
E: 1078350.0413
Elev.: 700.25



No.	Date	Revision
1	04-12-2024	Village & IDOT Review
2	02-16-2024	Village Review
3	01-10-2024	Village Review
4	08-31-2023	Village Review

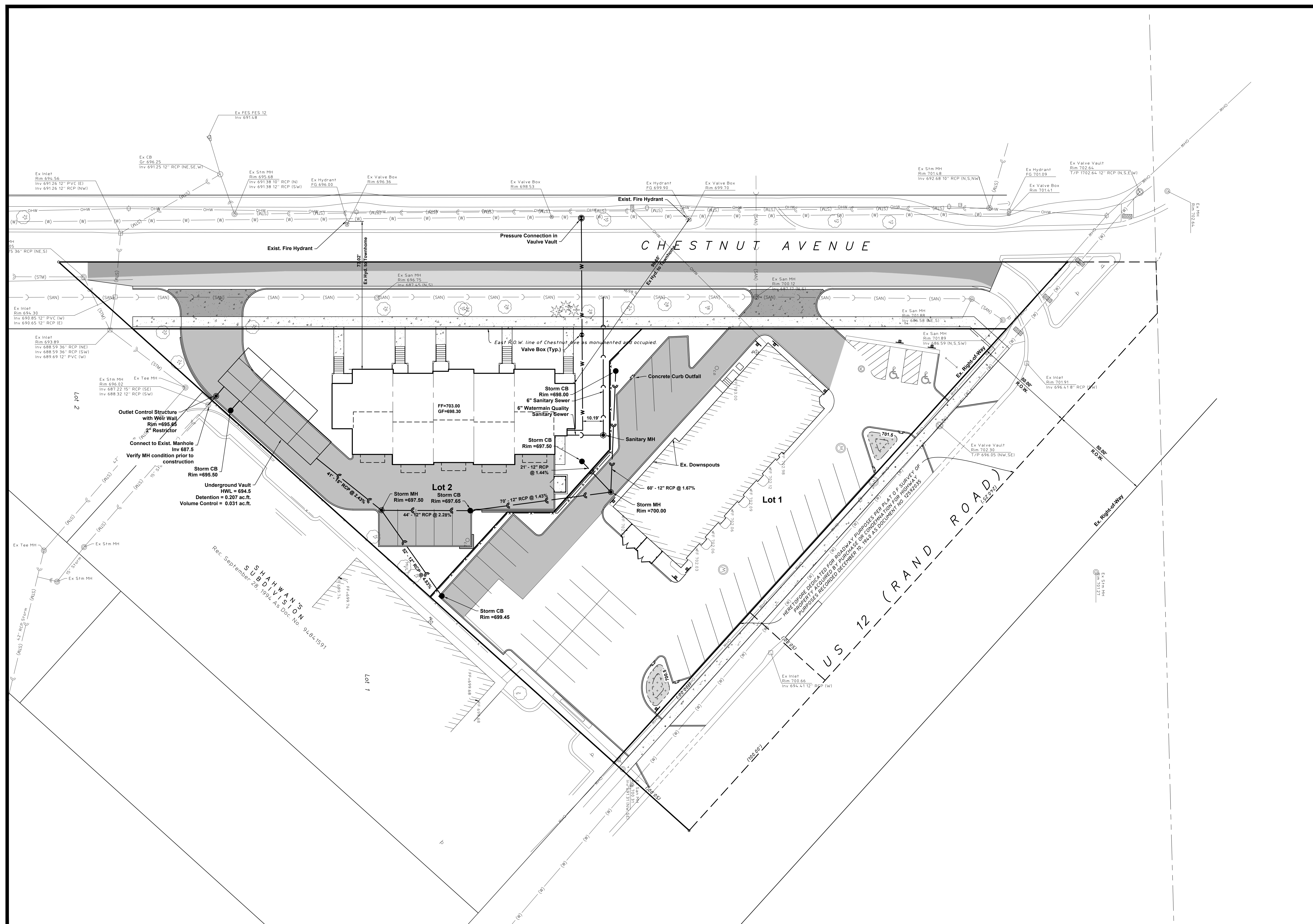
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GRADING PLAN
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS
ARLINGTON HEIGHTS, ILLINOIS

Project Manager: K.M.L
Engineer: V.D.R
Date: 04-20-2023
Project No. 22253
Sheet **C5.0** / C7



Scale: 1" = 20'



Underground Vault
HWL = 694.5
Detention = 0.207 ac.ft.
Volume Control = 0.031 ac.ft.

Outlet Control Structure
with Weir Wall
Rim = 695.65
Restrictor
Connect to Exist. Manhole
Inv 687.5
Verify MH condition prior to
construction

SHAWHAN'S
SUBDIVISION
Rec. September 28, 1994 As Doc. No. 94841591

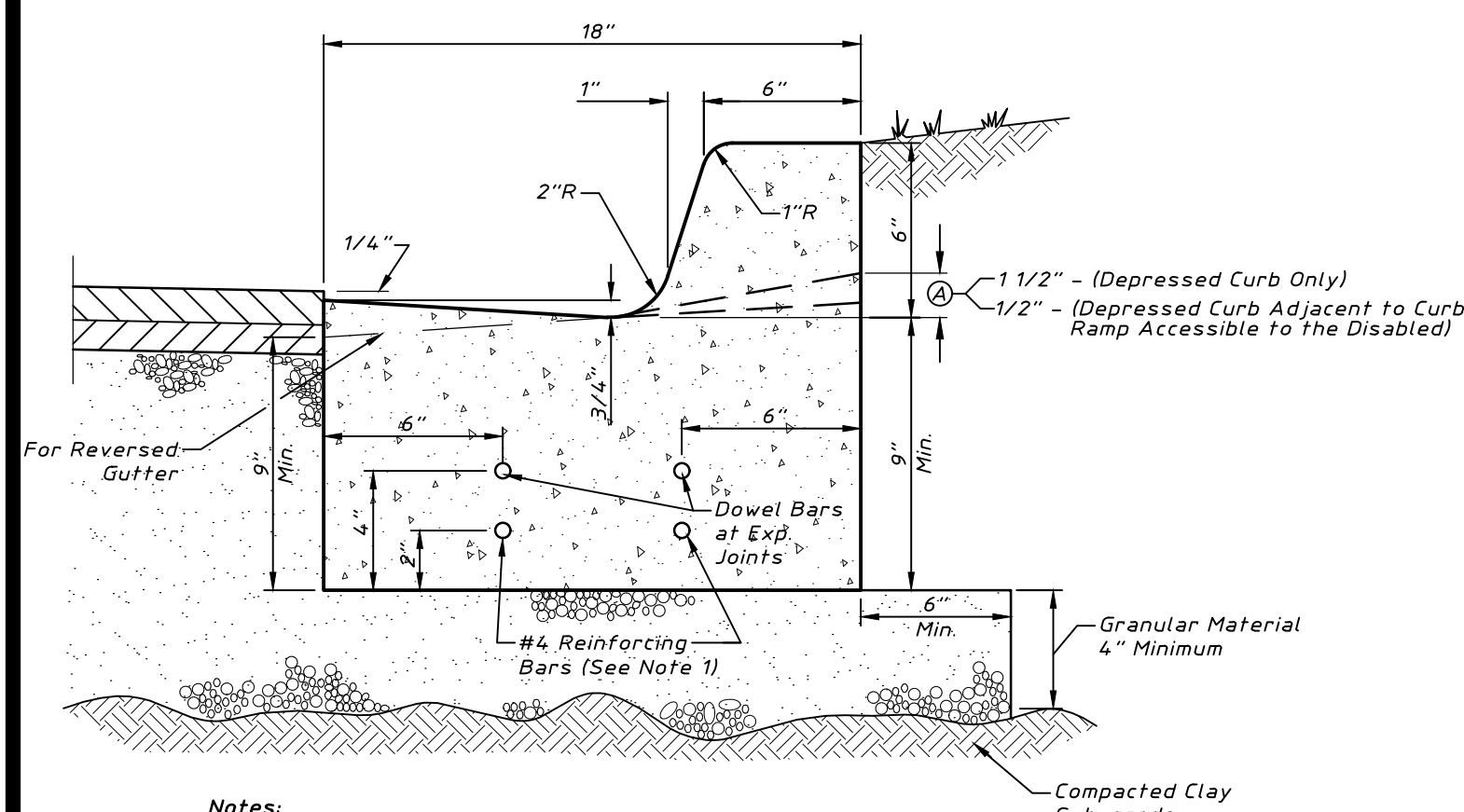
HEREBY OPRE DENY A FE FOR PROVA PURPOSES PER PLAT OF SURVEY OF
PROPERTY ACCORDED BY PURCHASE OF CONDEMNATION FOR
PURPOSE RECORDED DECEMBER 10, 1947 AS DOCUMENT NO. 2592026

No.	Date	Revision
1	01-10-2024	Village Review
2	02-16-2024	Village Review
3	04-12-2024	Village & IDOT Review

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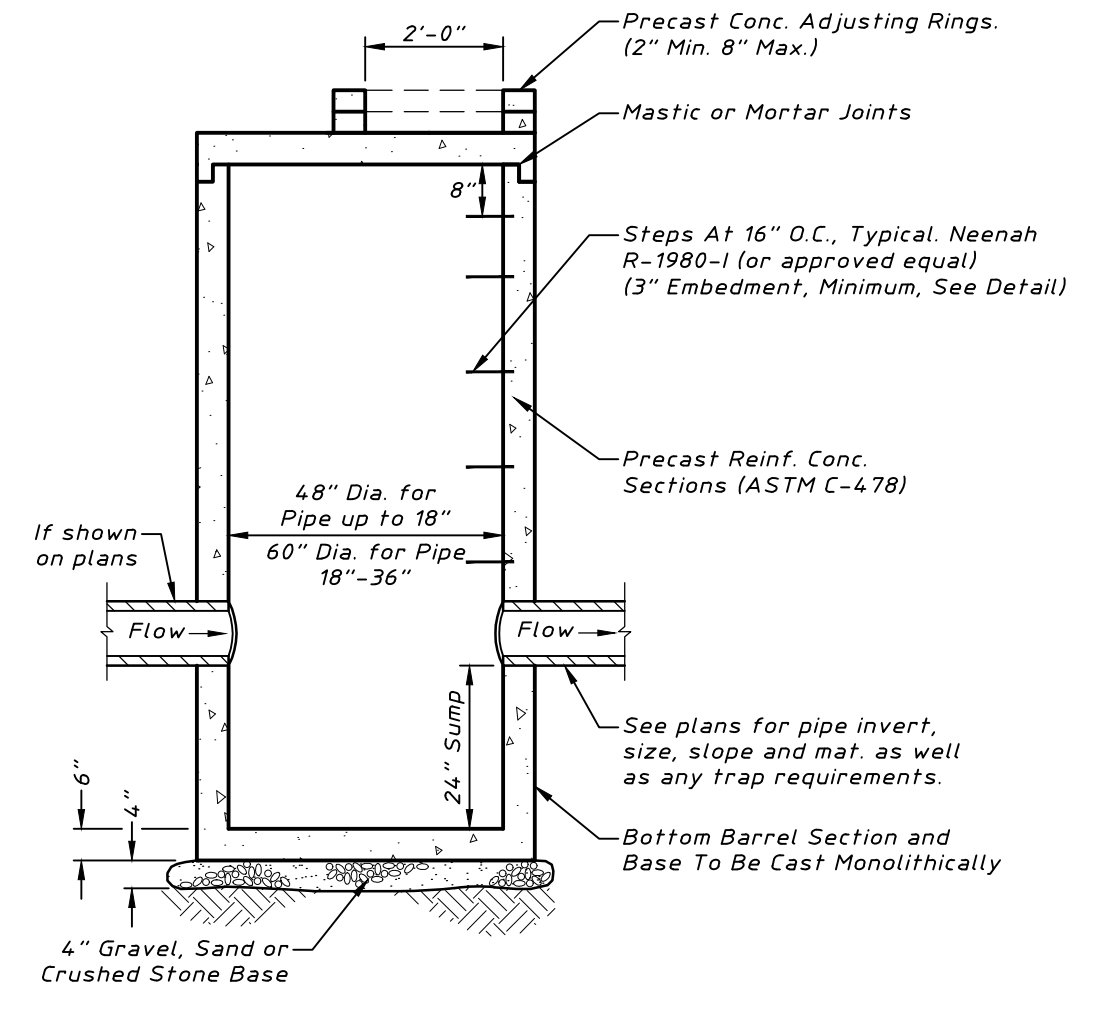
UTILITY PLAN
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS
ARLINGTON HEIGHTS, ILLINOIS

Project Manager: K M L
Engineer: V D R
Date: 04-20-2023
Project No. 22253
Sheet **C6.0** / C7



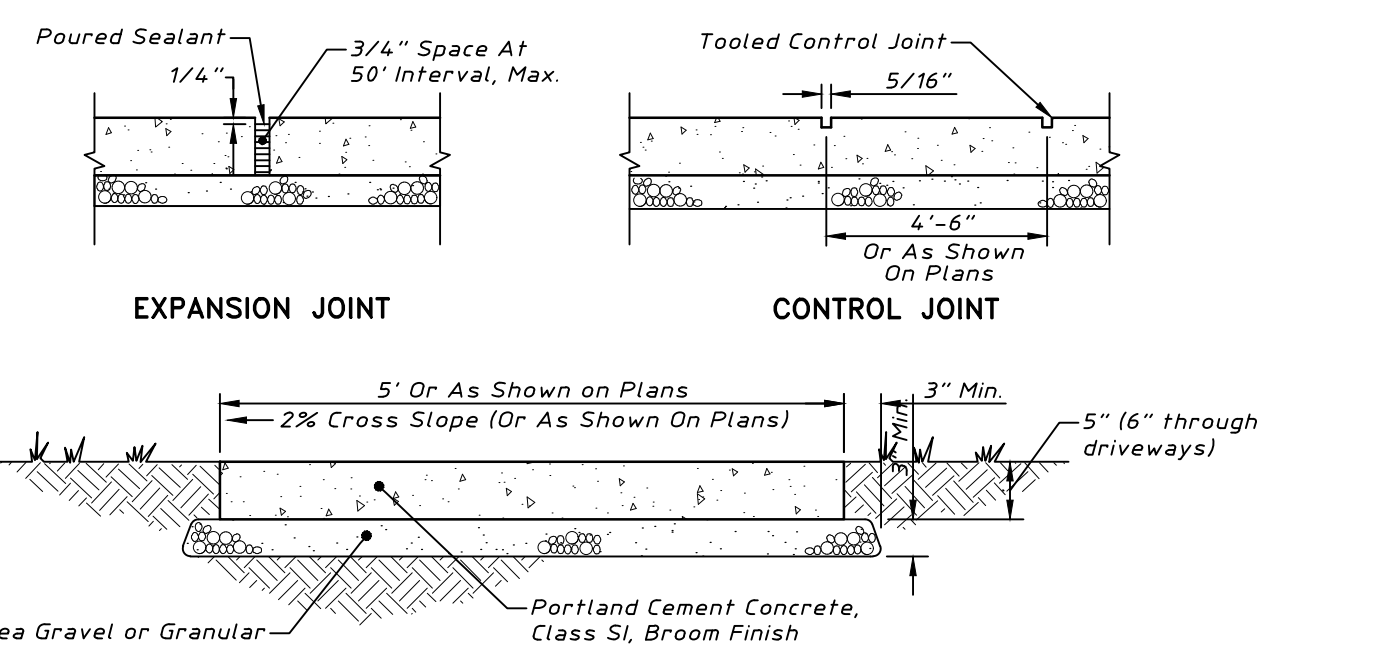
- Notes:**
- Use two #4 rebar for 10 feet on either side of all utility trenches.
 - A 1" expansion joint shall be installed at all points of curvature for short radius (under 45°) curves. Maximum expansion joint spacing is 60'. Expansion joints shall be constructed with 1" thick preformed expansion joint filler conforming to the curb & gutter cross section and shall be provided with two, 1-1/4" x 18" long coated smooth dowel bar. The dowel bar shall be fitted with a cap with a pinched stop which provides a minimum of 1" expansion.
 - Maximum contraction (control) joint spacing shall be 20'.
 - Flag thickness shall match proposed roadway, or 9" minimum.
 - See plan set to determine where Standard, Reverse, Depressed, or Depressed Adjacent to ADA Accessible Ramp Curbs are proposed.

B-6.12 CONCRETE CURB & GUTTER

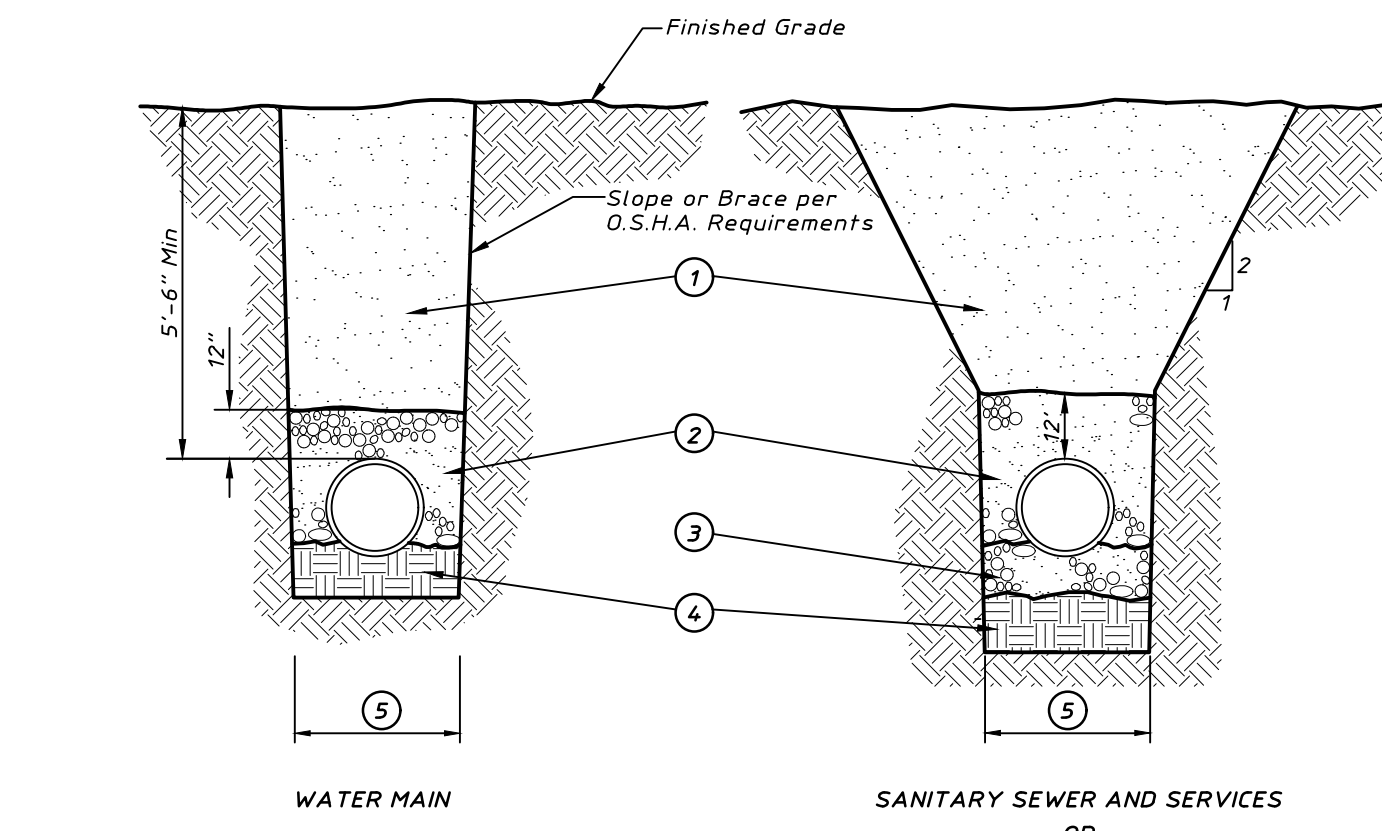


CATCH BASIN - TYPE B

Backfill: Same material and procedure as adjacent piping

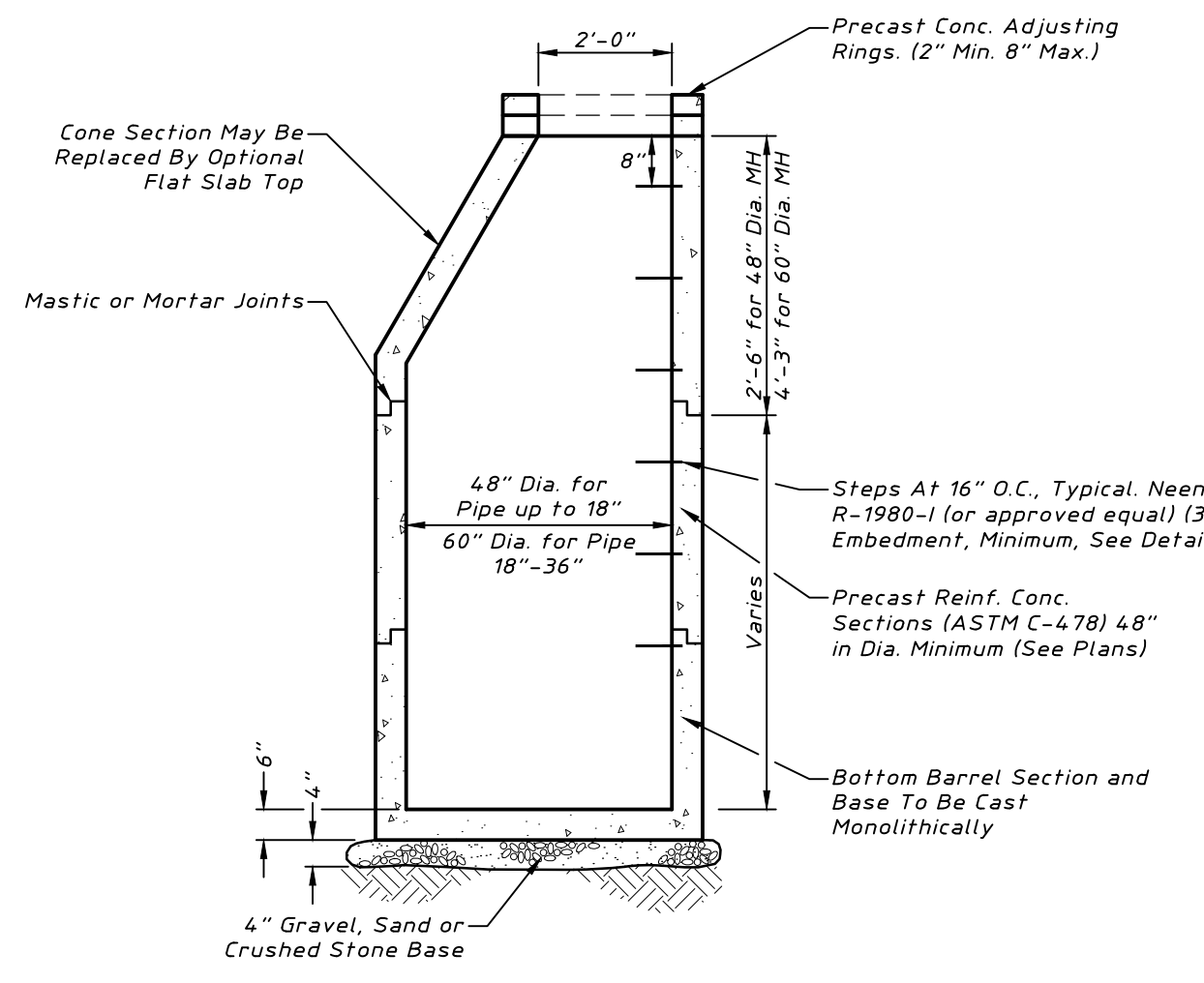


PORTLAND CEMENT CONC. SIDEWALK



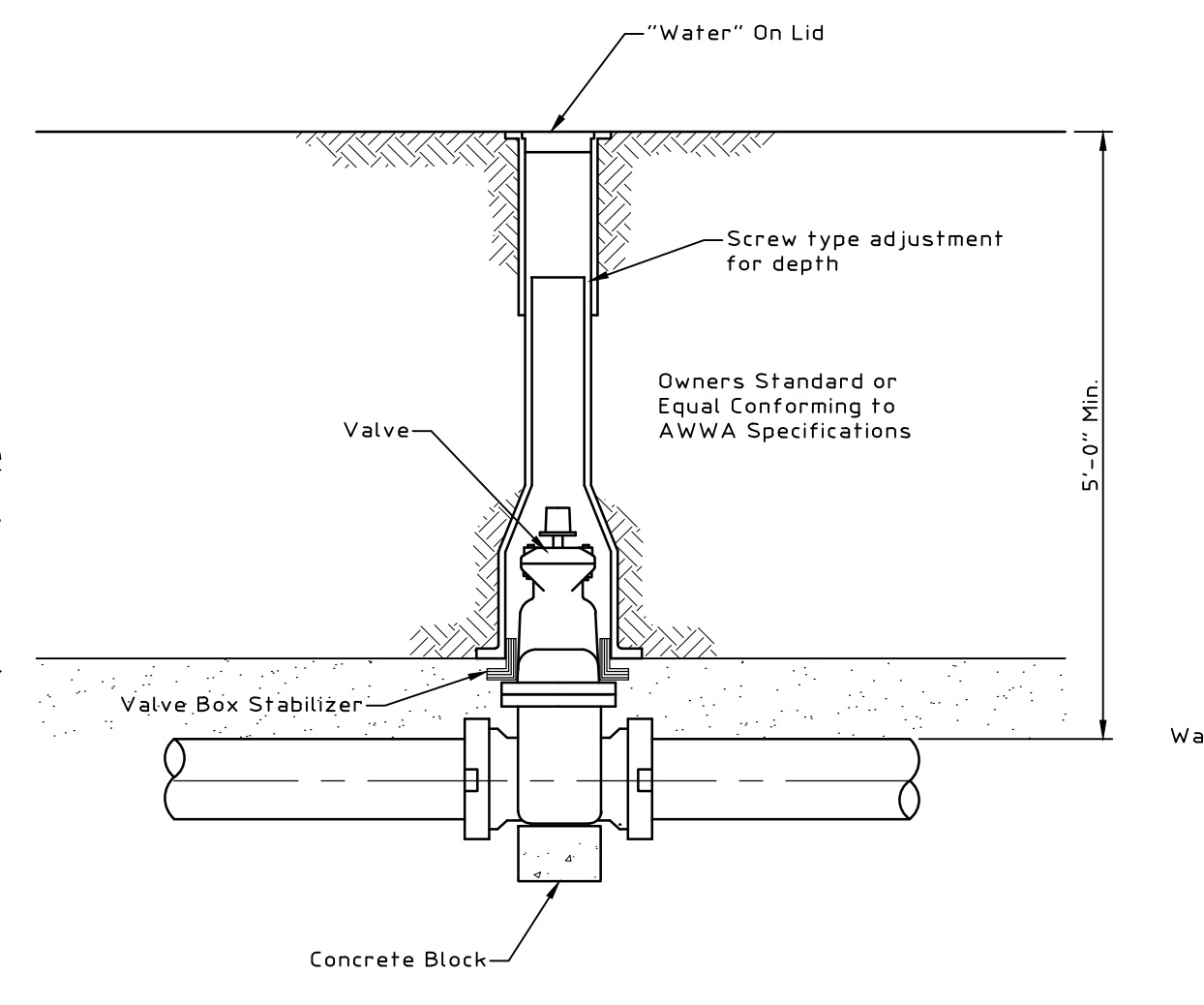
TYPICAL TRENCH CROSS SECTION

- Notes:**
- CA-6 Trench backfill under pavement, curb and gutter as indicated in road subgrades and within 2 feet of any proposed curb and gutter or sidewalk. Mechanically compacted backfill of excavated materials in other locations if approved by the Village Engineer. Refer to note 3 below for materials and compaction requirements.
 - WATER MAIN** Compacted granular material per standard specifications for water and sewer main construction in Illinois, to 12" above top of pipe Compact to 95% (ASTM D-1557) 8" lifts max.
STORM SEWER Compacted granular material per standard specifications for water and sewer main construction in Illinois, to 12" above top of pipe. Compact to 95% (ASTM D-1557) 8" lifts max.
SANITARY SEWER (PVC or DIP) Compacted granular material per standard specifications for water and sewer main construction in Illinois, to 12" above top of pipe (also see note 1 below). Compact to 95% (ASTM D-1557) 8" lifts max.
 - 4" Compacted granular bedding material, per standard specifications for water and sewer main construction in Illinois, 8" lifts max. (Loose measure). Compact to 95% (ASTM D-1557).
 - Unsuitable material to be removed where directed by Engineer (to a minimum depth of 4") and replaced with suitable material and compacted.
 - Trench Width - Pipe O.D. + 24" Minimum
Pipe O.D. + 36" Maximum

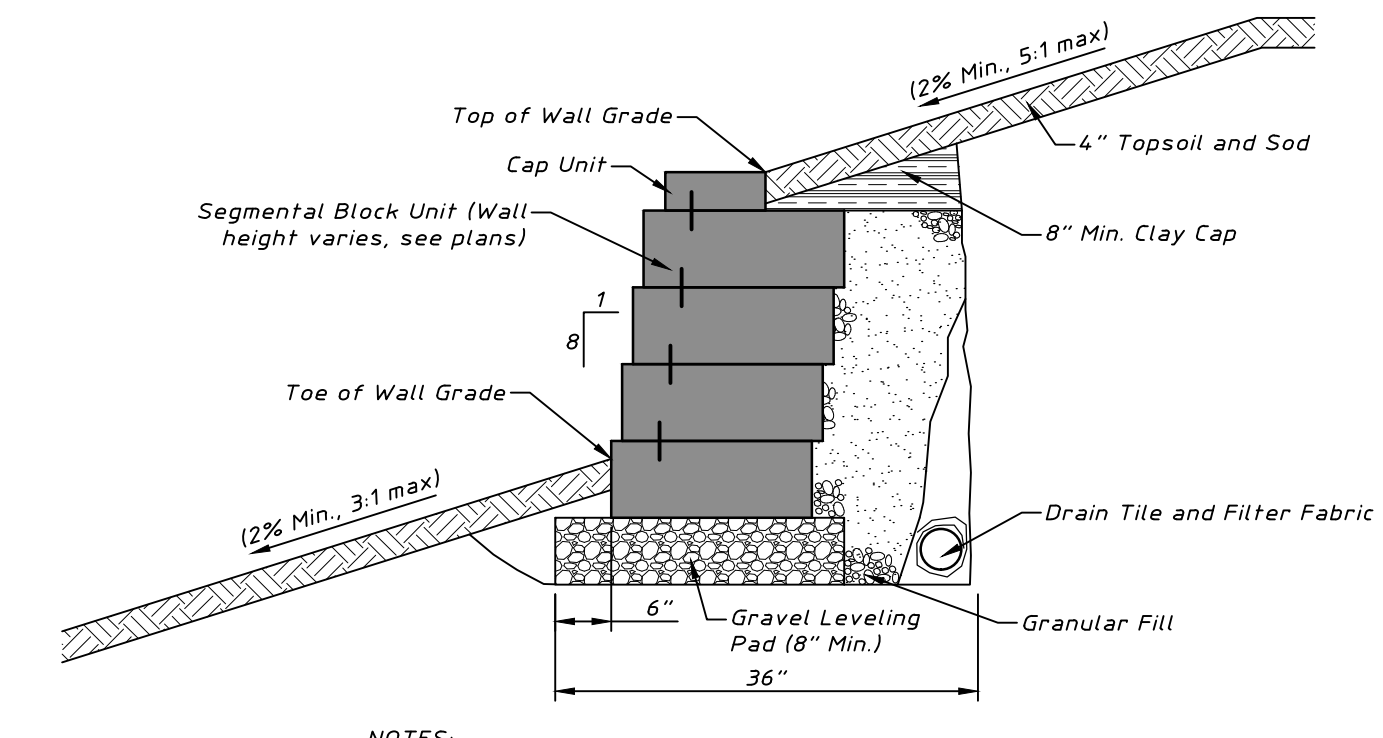


STORM SEWER MANHOLE

For shallow manholes, the cone shall be replaced with an 8" precast concrete slab.

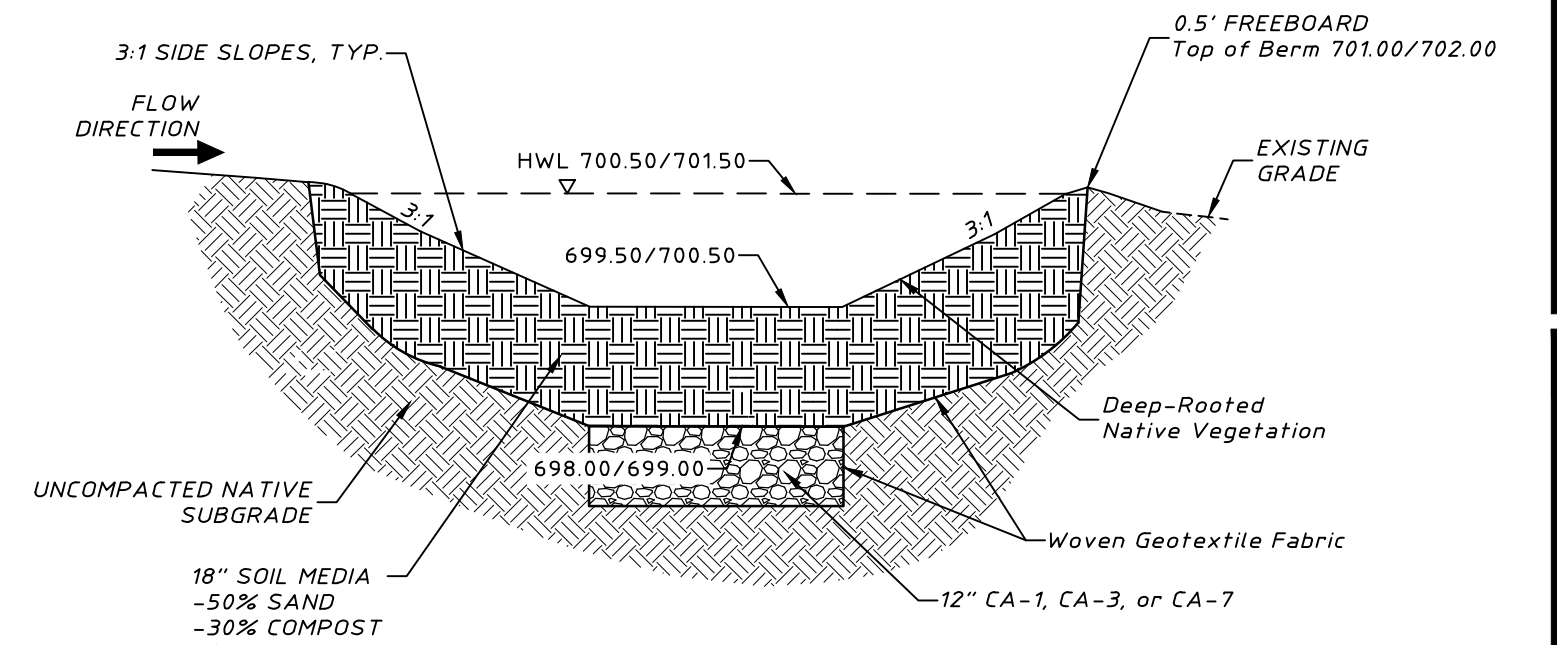


TYPICAL VALVE BOX INSTALLATION

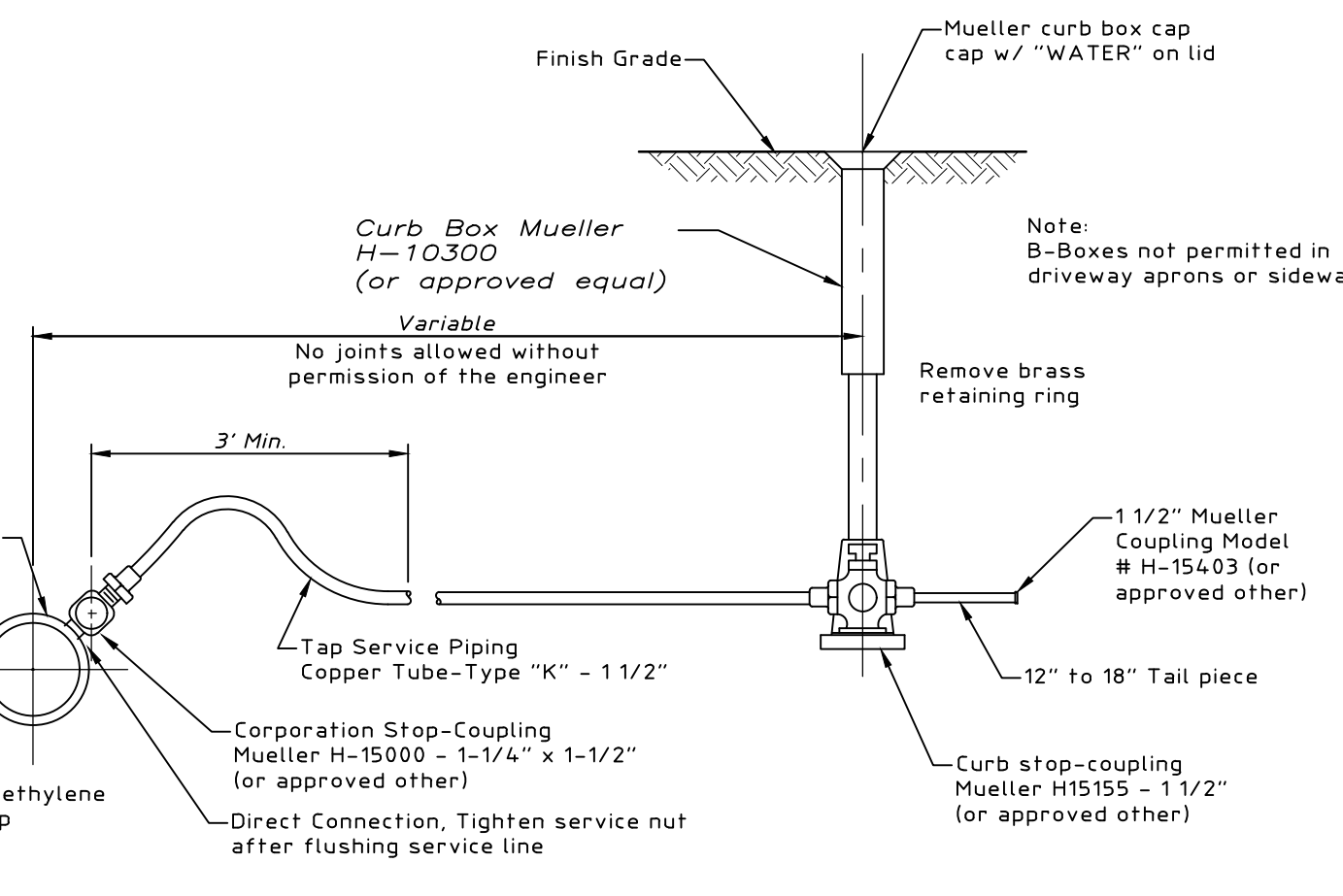


SEGMENTAL BLOCK RETAINING WALL

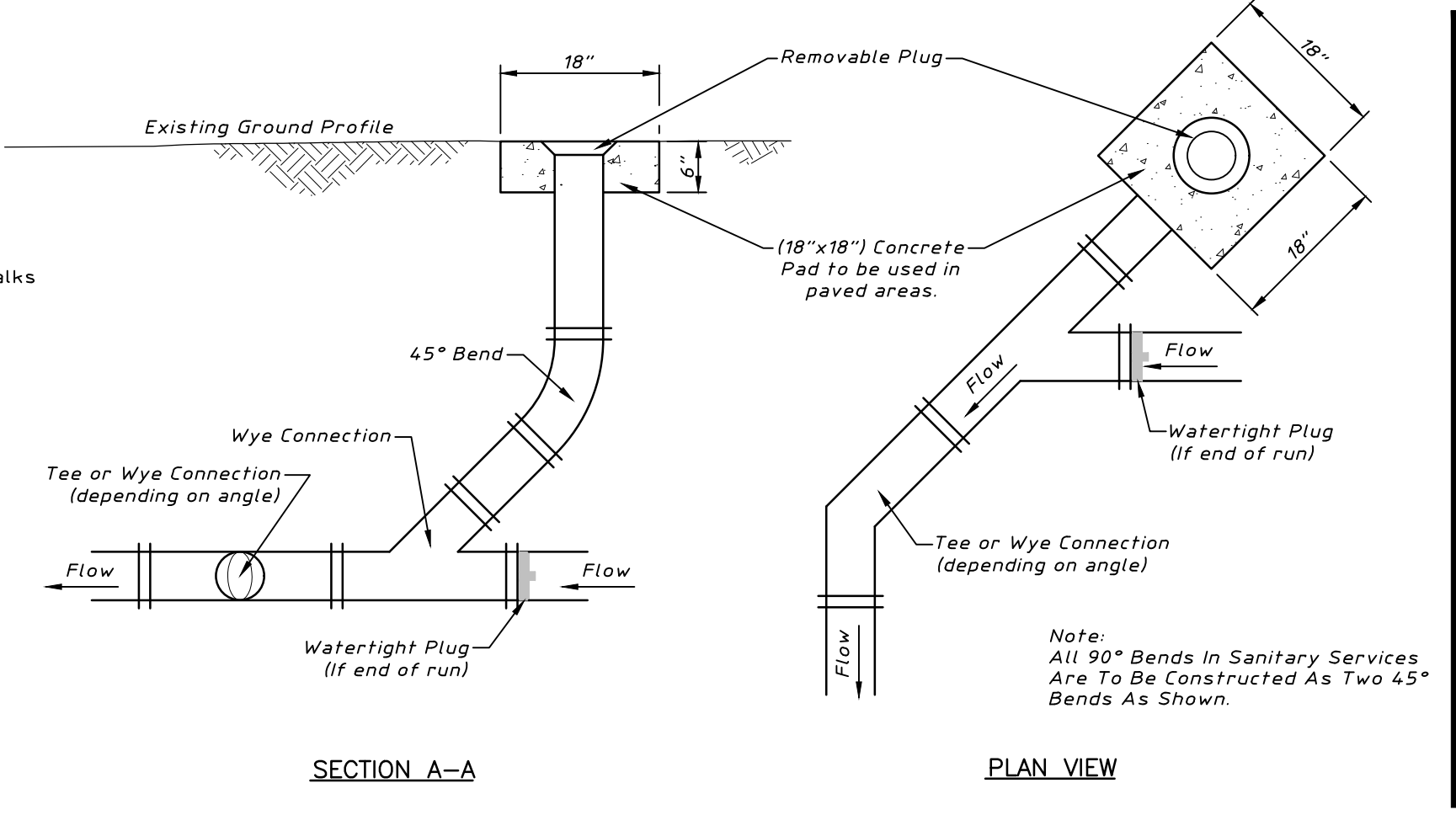
- NOTES:**
- Wall shall be constructed in accordance with the specification guidelines of the selected manufacturer. Contractor shall submit shop drawings to the engineer for approval prior to construction. Drawings must be signed & sealed by a registered structural engineer.
 - This Detail Does Not Account For Extreme Vehicle Impact
 - Color to be determined by Architect.



BIOSWALE



WATER SERVICE DETAIL



SANITARY SERVICE CLEANOUT ALIGNMENT DETAIL

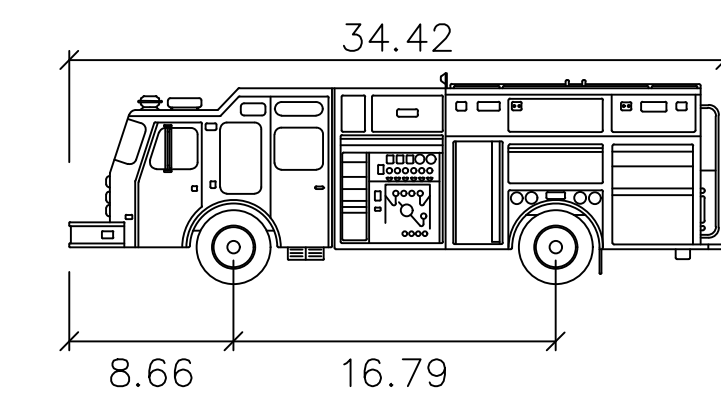
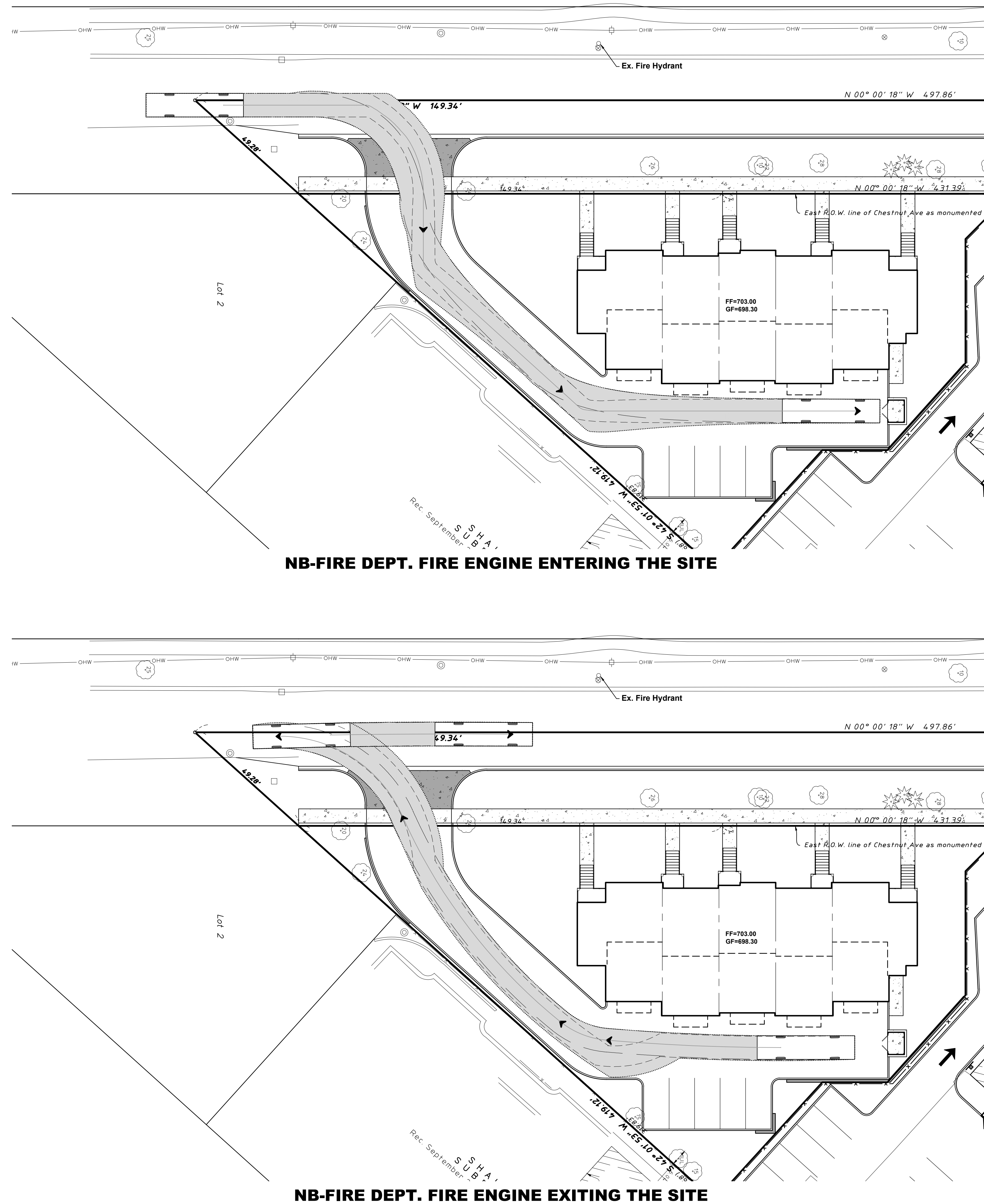
Revision	Date	No.
1	08-31-2023	1
2	01-10-2024	2
3	02-16-2024	3
4	04-12-2024	4

Village & IDOT Review
 Village Review
 Village Review
 Village Review
 Village Review

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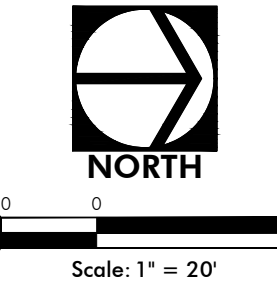
CONSTRUCTION DETAILS
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS
 ARLINGTON HEIGHTS, ILLINOIS

Project Manager: KML
 Engineer: VDR
 Date: 04-20-2023
 Project No. 22253
 Sheet **C7.0** / C7



ARLINGTON HTS ENGINE
feet

Width : 8.33
Track : 8.33
Lock to Lock Time : 3.0
Steering Angle : 32.2

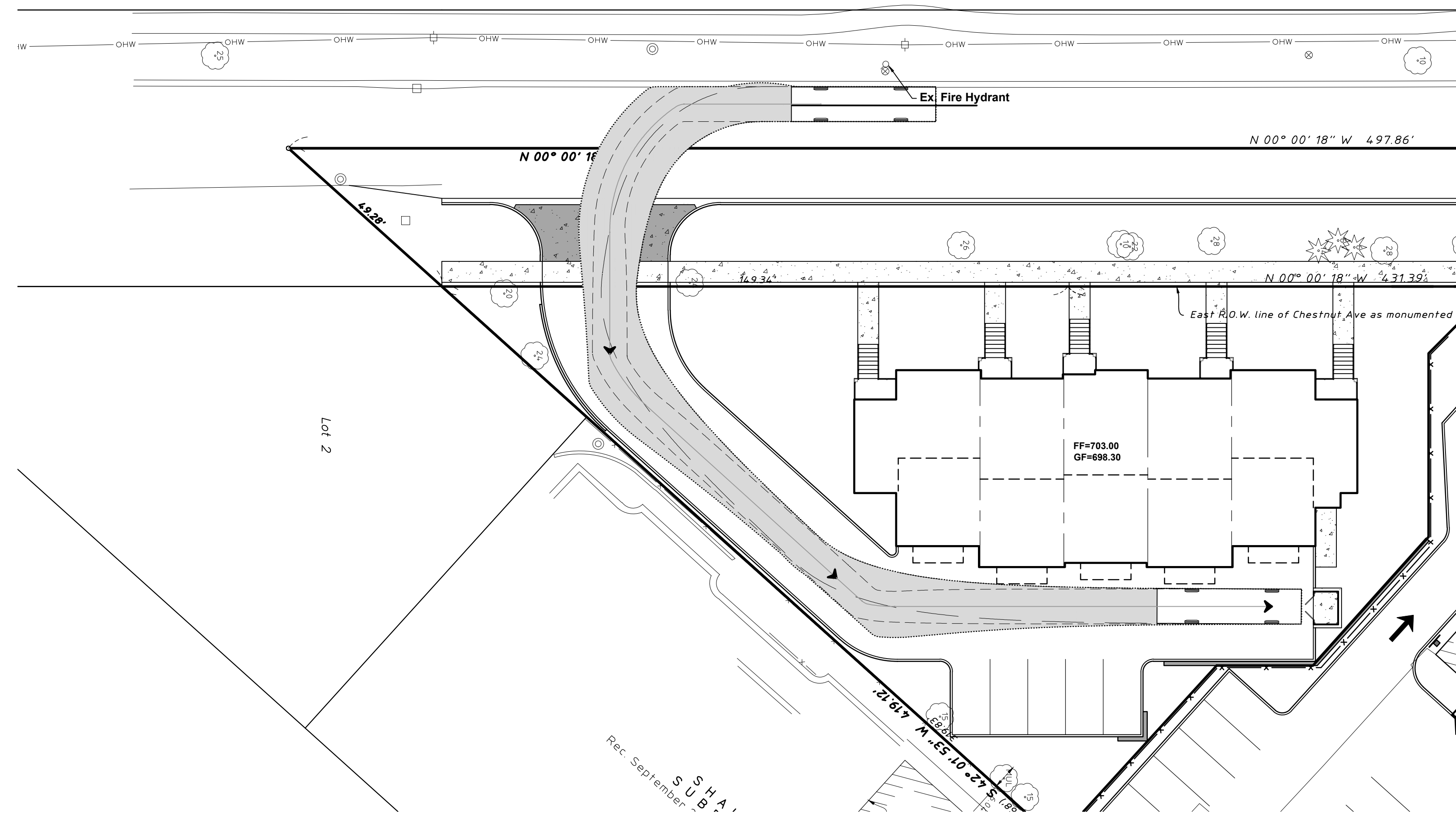


No.	Date	Revision
4	04-12-2024	Village & IDOT Review
3	02-16-2024	Village Review
2	01-10-2024	Village Review
1	08-21-2023	Village Review

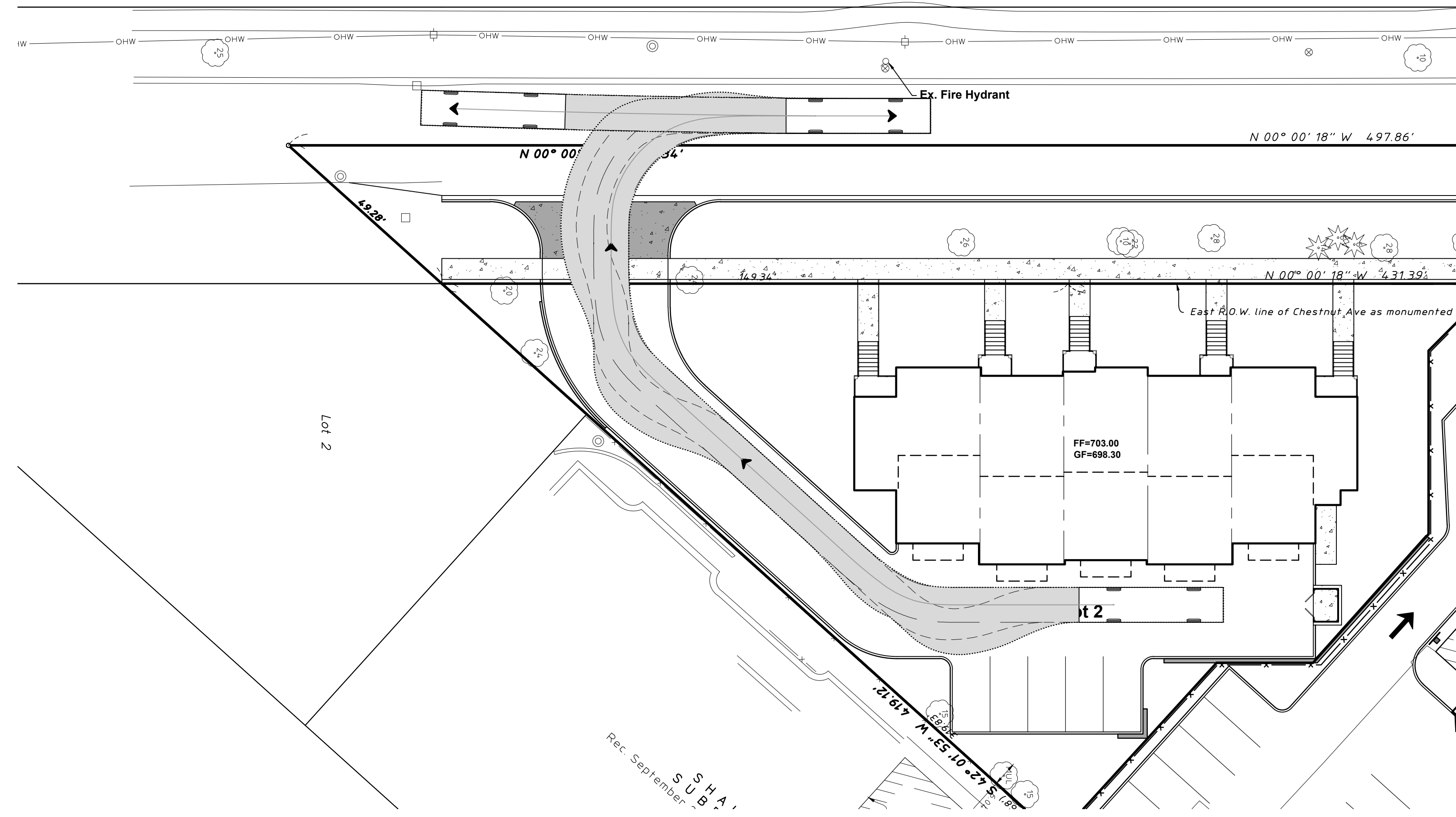
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**NB FIRE TRUCK ACCESS PLAN -
TOWNHOME SITE
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS**
ARLINGTON HEIGHTS, ILLINOIS

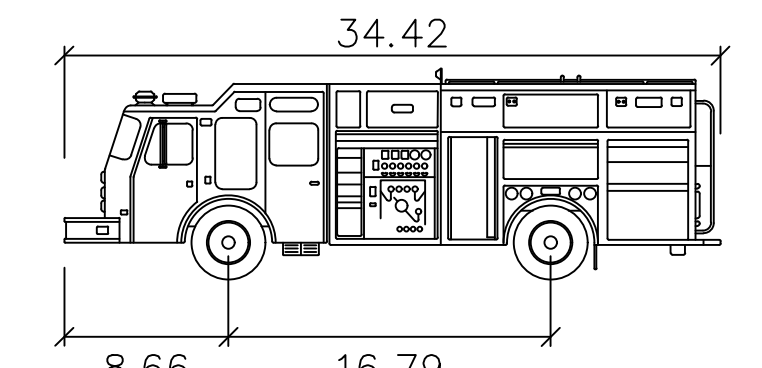
Project Manager: K M L
Engineer: V D R
Date: 04-20-2023
Project No. 22253
Sheet **EX-1** / C7



SB-FIRE DEPT. FIRE ENGINE ENTERING THE SITE

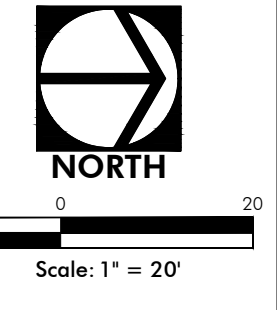


SB-FIRE DEPT. FIRE ENGINE EXITING THE SITE



ARLINGTON HTS ENGINE
feet

Width : 8.33
Track : 8.33
Lock to Lock Time : 3.0
Steering Angle : 32.2



No.	Date	Revision
4	04-12-2024	Village & IDOT Review
3	02-16-2024	Village Review
2	01-10-2024	Village Review
1	08-21-2023	Village Review

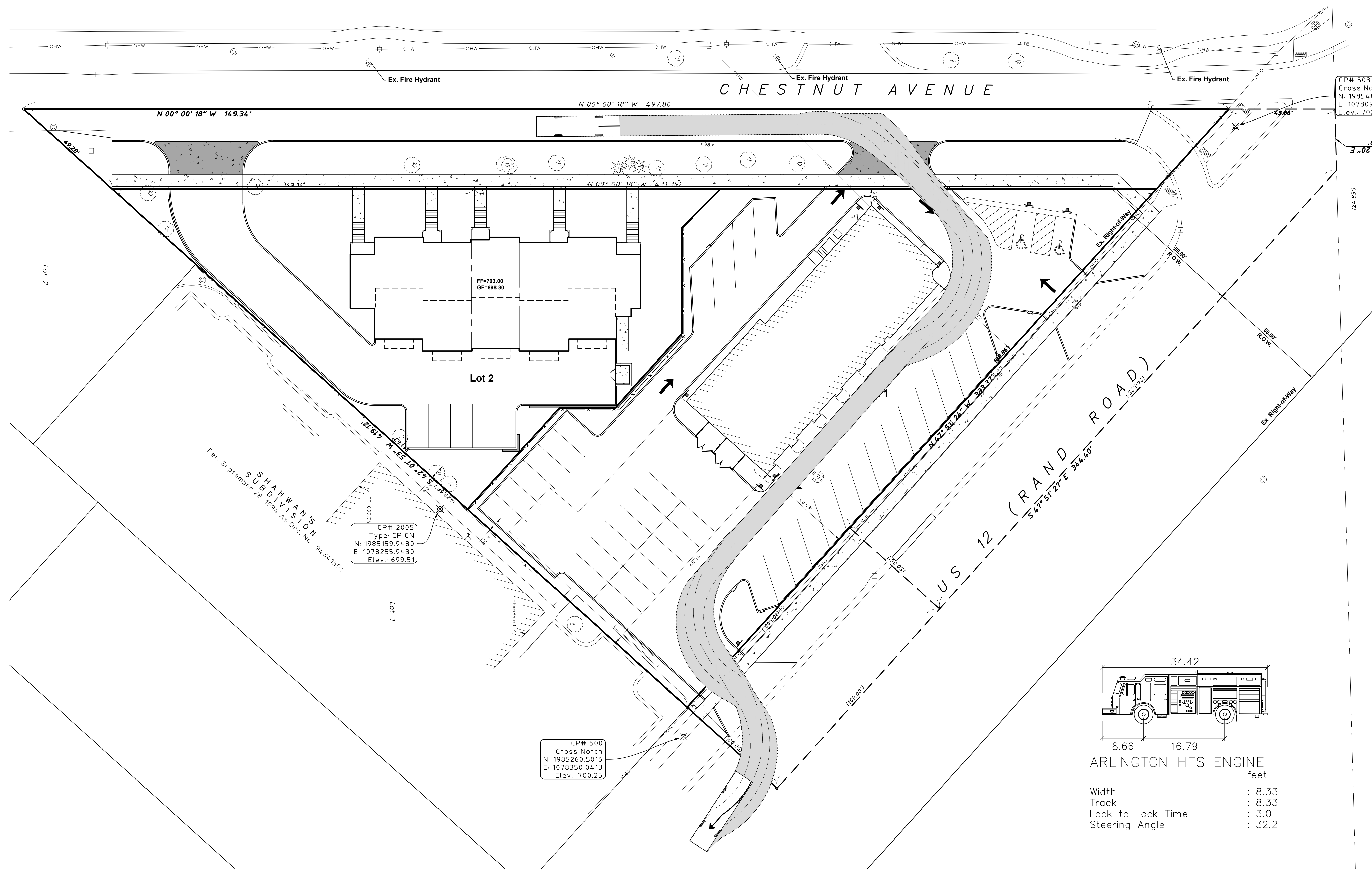
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**SB FIRE TRUCK ACCESS PLAN -
TOWNHOME SITE
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS**
ARLINGTON HEIGHTS, ILLINOIS

Project Manager: K M L
Engineer: V D R
Date: 04-20-2023
Project No. 22253
Sheet **EX-2** / C7



Scale: 1" = 20'

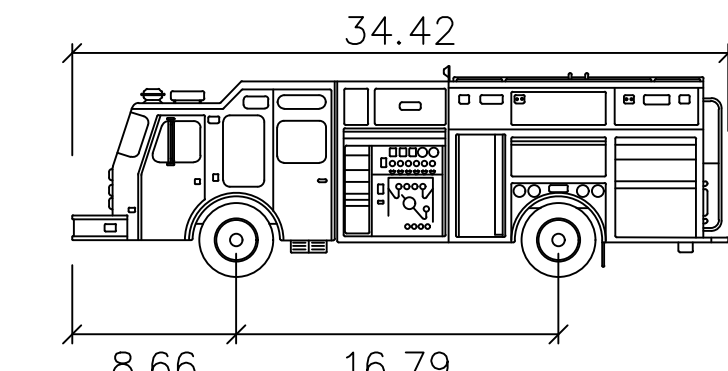


CP# 503
 Cross Notch
 N: 1985488
 E: 1078097
 Elev.: 702.3

CP# 2005
 Type: CP CN
 N: 1985159.9480
 E: 1078255.9430
 Elev.: 699.51

CP# 500
 Cross Notch
 N: 1985260.5016
 E: 1078350.0413
 Elev.: 700.25

SHAWHAN'S
 SURVEYING DIVISION
 Rec. September 26, 1994 As Doc. No. 94841591



ARLINGTON HTS ENGINE
 feet
 Width : 8.33
 Track : 8.33
 Lock to Lock Time : 3.0
 Steering Angle : 32.2

NB-FIRE ENGINE ENTERING AND EXITING APC SITE

No.	Date	Revision
1	08-31-2023	Village Review
2	01-10-2024	Village Review
3	02-16-2024	Village Review
4	04-12-2024	Village & IDOT Review

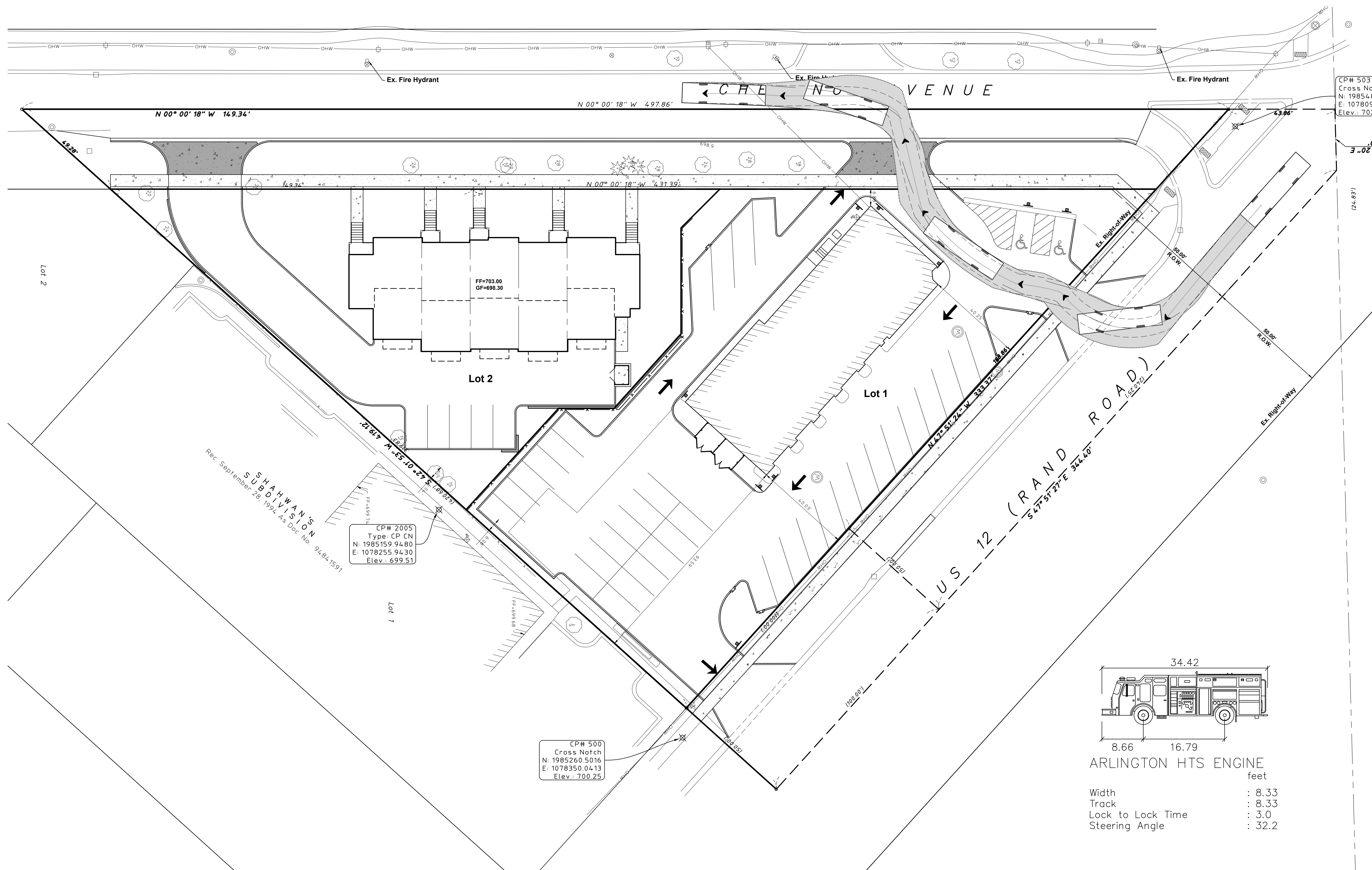
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NB FIRE TRUCK ACCESS PLAN - APC SITE
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS
 ARLINGTON HEIGHTS, ILLINOIS

Project Manager: K M L
 Engineer: V D R
 Date: 04-20-2023
 Project No. 22253
 Sheet **EX-3** / C7



Scale: 1" = 20'



SB-FIRE ENGINE ENTERING AND EXITING APC SITE

SHAHWAN'S
SURVEY DIVISION
Rec. September 28, 1994 As Doc. No. 94841591

CP# 2005
Type: CP CN
N: 1985159.9480
E: 1078255.9430
Elev.: 699.51

CP# 500
Cross Notch
N: 1985260.5016
E: 1078350.0413
Elev.: 700.25

CP# 503
Cross Notch
N: 1985488
E: 1078097
Elev.: 702.3

No.	Date	Revision
1	08-31-2023	Village Review
2	01-10-2024	Village Review
3	02-16-2024	Village Review
4	04-12-2024	Village & IDOT Review

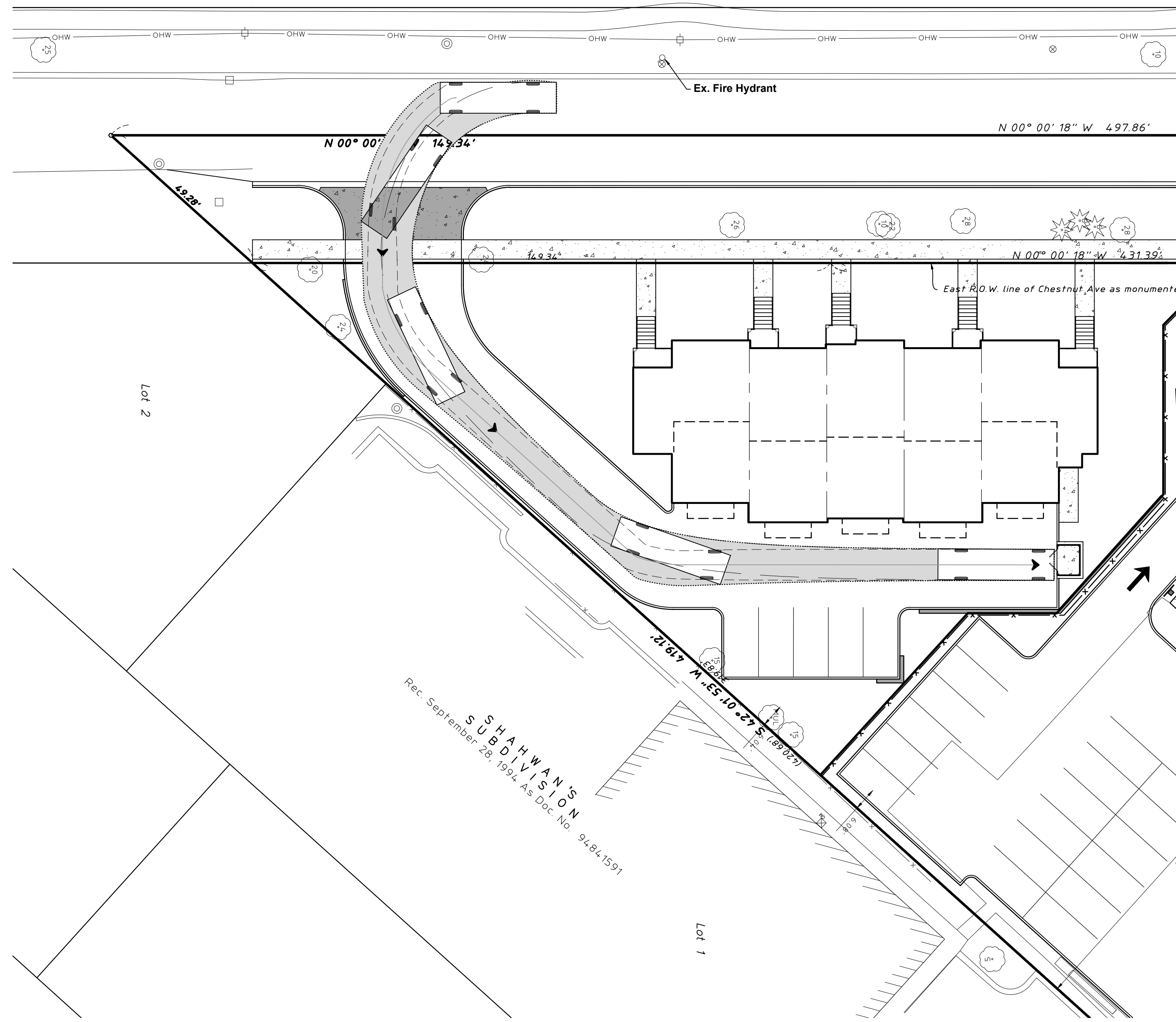
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SB FIRE TRUCK ACCESS PLAN - APC SITE
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS
ARLINGTON HEIGHTS, ILLINOIS

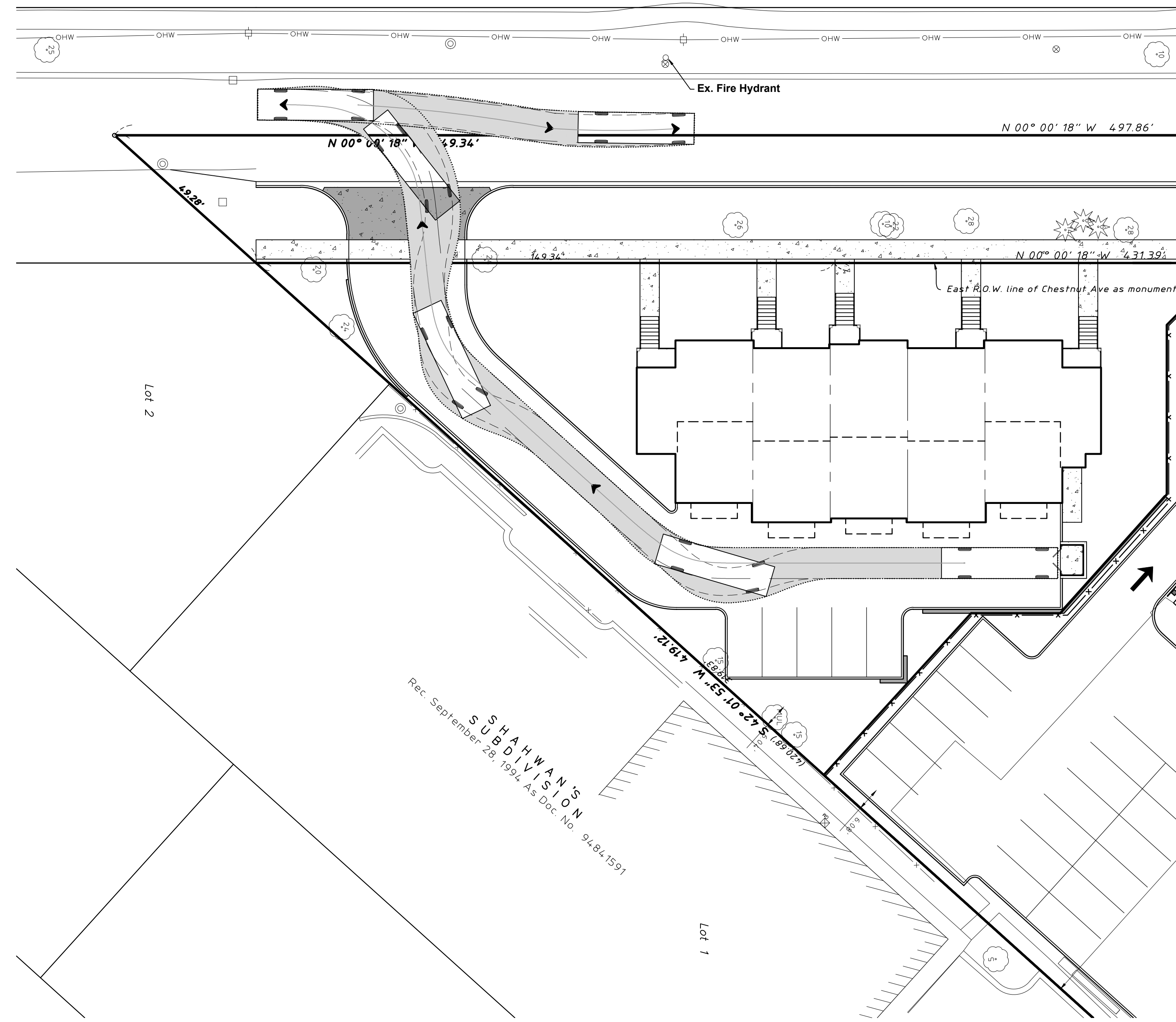
Project Manager: K M L
Engineer: V D R
Date: 04-20-2023
Project No. 22253
Sheet EX-4



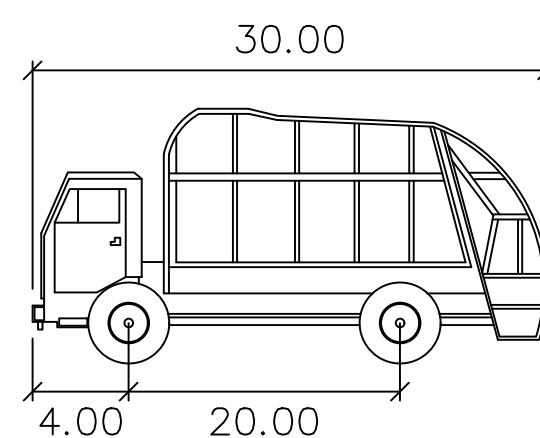
Scale: 1" = 20'



GARBAGE TRUCK ENTERING THE SITE



GARBAGE TRUCK EXITING THE SITE



GARBAGE TRUCK—ARLINGTON HTS

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 3.0
Steering Angle	: 31.8

No.	Date	Revision
4	04-12-2024	Village & IDOT Review
3	02-16-2024	Village Review
2	01-10-2024	Village Review
1	08-31-2023	Village Review

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GARBAGE TRUCK ACCESS PLAN
RAND ROAD & CHESTNUT AVE.
PRELIMINARY ENGINEERING PLANS
 ARLINGTON HEIGHTS, ILLINOIS

Project Manager: K M L
 Engineer: V D R
 Date: 04-20-2023
 Project No. 22253
 Sheet **EX-5** / C7