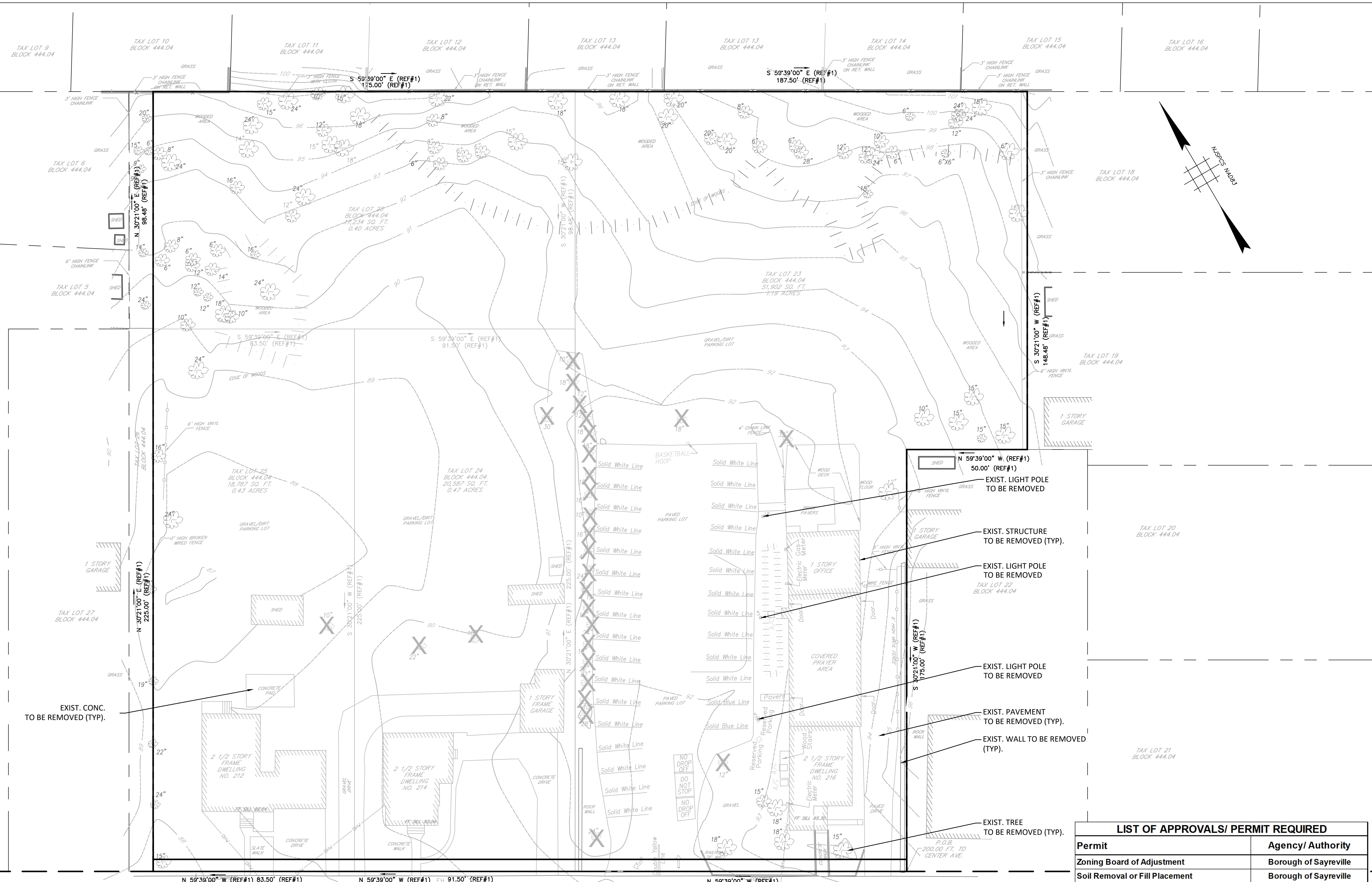




| TREE DIA.    | QTY.       | TBR       |
|--------------|------------|-----------|
| 4            | 1          | 1         |
| 6            | 13         | 4         |
| 8            | 5          | 1         |
| 10           | 11         | 7         |
| 12           | 12         | 4         |
| 14           | 2          | 2         |
| 15           | 15         | 7         |
| 16           | 5          | 2         |
| 18           | 15         | 10        |
| 20           | 4          | 0         |
| 22           | 4          | 3         |
| 24           | 14         | 4         |
| 28           | 2          | 1         |
| 30           | 1          | 1         |
| 32           | 1          | 1         |
| <b>TOTAL</b> | <b>105</b> | <b>48</b> |

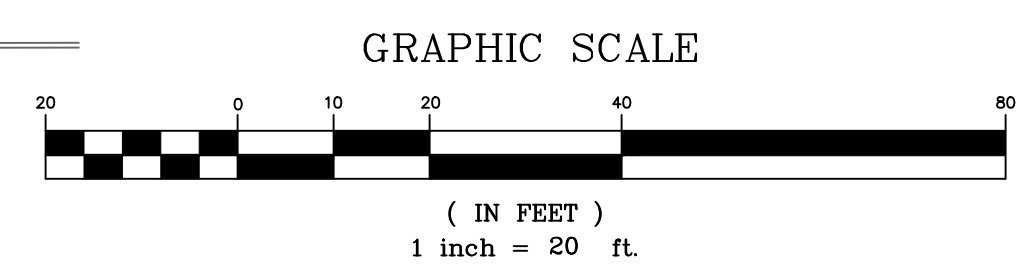


**LEGEND:**

**X** TBR - TO BE REMOVED

| LEGEND |                           |
|--------|---------------------------|
|        | - EXISTING SPOT ELEVATION |
|        | - EXISTING CONTOUR        |
|        | - PROPOSED CONTOUR        |
|        | - PROPOSED SPOT ELEVATION |

| LIST OF APPROVALS/ PERMIT REQUIRED       |                       |
|--|-----------------------|
| Permit                                   | Agency/ Authority     |
| Zoning Board of Adjustment               | Borough of Sayreville |
| Soil Removal or Fill Placement           | Borough of Sayreville |
| Tree Removal                             | Borough of Sayreville |
| Soil Erosion and Sediment Control Permit | Borough of Sayreville |
| Construction Permit                      | Borough of Sayreville |
| Road Opening Permit                      | Middlesex County      |
| Construction Activity SWDA               | NJDEP                 |



|             |          |                             |
|-------------|----------|-----------------------------|
| DRWN BY     | PC       | ADNAN A. KHAN, P.E., C.M.E. |
| DATE        | 12/20/21 | PROFESSIONAL ENGINEER       |
| DESIGNED BY | AK       | <i>Adnan A. Khan</i>        |
| DATE        | 10/25/23 | DATE                        |
| APPROVED BY | AK       | N.J. LICENSE NO. 39812      |
| DATE        | 08/23/23 | P.A. LICENSE NO. 4965E      |
|             |          | N.Y. LICENSE NO. 08645      |
|             |          | M.D. LICENSE NO. 4183       |

**AWZ ENGINEERING, INC.**  
**ENGINEERS • SCIENTISTS • CONSULTANTS**  
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 Pennsylvania Office: Scranton, PA 18504  
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 www.awzengineering.com e-mail: info@awzengineering.com  
 New Jersey Certificate of Authorization No.: 24GA28118400  
 Pennsylvania Certificate of Authority No.: 3771354

**TAX LOTS 23, 24, 25 & 28 BLOCK 444.04**  
**212, 214 & 216 ERNSTON ROAD**  
**BOROUGH OF SAYREVILLE**  
**MIDDLESEX COUNTY, NEW JERSEY**

**DEMOLITION PLAN**

JOB NUMBER:  
21-1009

SCALE: AS SHOWN

**C-02**  
SHEET 2 OF 19



PROP. CONC. WHEEL STOP (TYP.)

1 STORY GARAGE

TAX LOT 26 BLOCK 444.04

TAX LOT 27 BLOCK 444.04

50' Rear Yard Setback Line

25' Side Yard Setback Line

50' Front Yard Setback Line

25' Side Yard Setback Line

1 STORY GARAGE

TAX LOT 19 BLOCK 444.04

TAX LOT 22 BLOCK 444.04

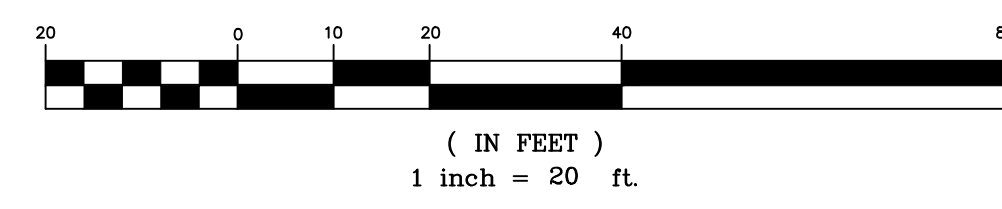
TAX LOT 20 BLOCK 444.04

TAX LOT 21 BLOCK 444.04

ERNSTON ROAD

(50' R.O.W. PER TAX MAP)

GRAPHIC SCALE



ADNAN A. KHAN, P.E., C.M.E.  
PROFESSIONAL ENGINEER

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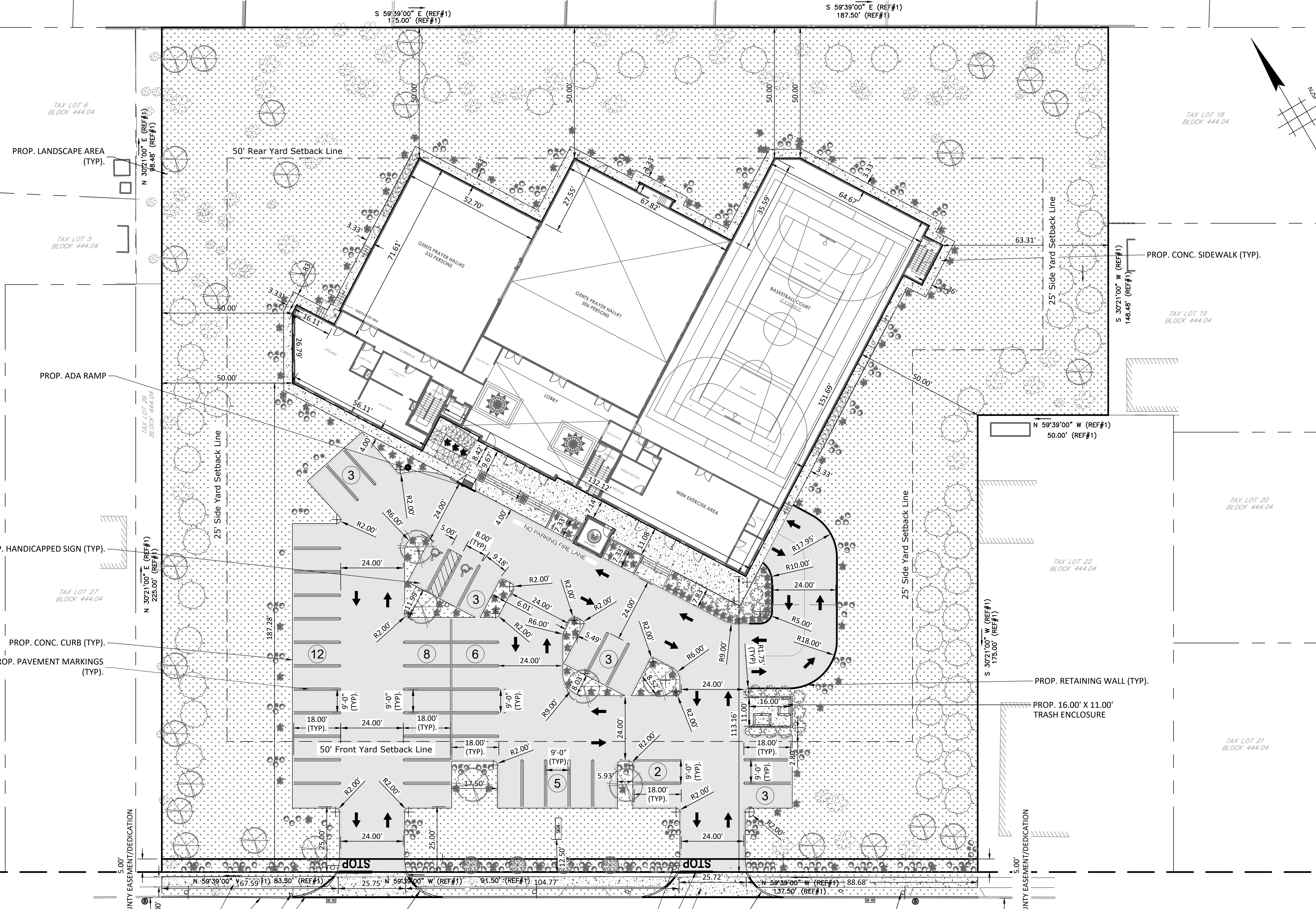
TAX LOTS 23, 24, 25 & 28 BLOCK 444.04  
212, 214 & 216 ERNSTON ROAD  
BOROUGH OF SAYREVILLE  
MIDDLESEX COUNTY, NEW JERSEY  
SITE DEVELOPMENT PLAN  
BASEMENT

JOB NUMBER:  
21-1009  
SCALE: AS SHOWN

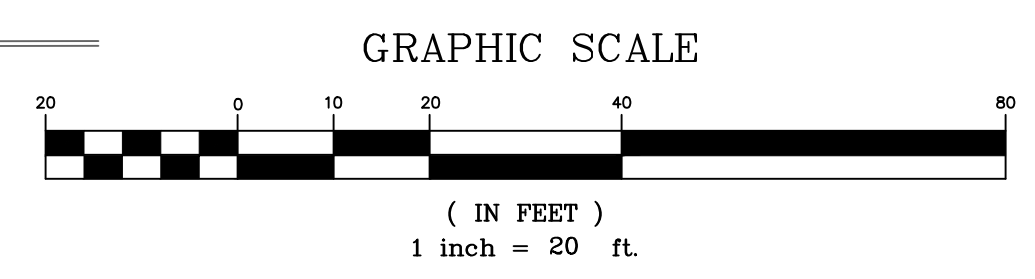
C-03  
SHEET 3 OF 19

|                    |                    |                   |                   |
|--------------------|--------------------|-------------------|-------------------|
| DRAWN BY:<br>FC    | DESIGNED BY:<br>AK | DATE:<br>12/20/21 | DATE:<br>12/20/21 |
| APPROVED BY:<br>AK | DATE:<br>12/20/21  | REVISIONS<br>NO.  | BY:<br>APE        |
|                    |                    |                   | DATE:<br>12/20/21 |
|                    |                    |                   |                   |

TAX LOT 9 BLOCK 444.04 TAX LOT 10 BLOCK 444.04 TAX LOT 11 BLOCK 444.04 TAX LOT 12 BLOCK 444.04 TAX LOT 13 BLOCK 444.04 TAX LOT 14 BLOCK 444.04 TAX LOT 15 BLOCK 444.04 TAX LOT 16 BLOCK 444.04



PROP. LANDSCAPE AREA (TYP.)  
 PROP. ADA RAMP  
 PROP. HANDICAPPED SIGN (TYP.)  
 PROP. CONC. CURB (TYP.)  
 PROP. PAVEMENT MARKINGS (TYP.)  
 PROP. CONC. CURB AND SIDEWALK (MAX. CROSS SLOPE @ 2%) ALONG PROPERTY FRONTAGE (TYP.)  
 EXIST. POLE TO BE RELOCATED AS REQUIRED  
 PROP. DEPRESSED CURB (TYP.)  
 CENTER LINE (APPROXIMATE LOCATION)  
 ERNSTON ROAD  
 (50' R.O.W. PER TAX MAP)  
 PROP. "STOP" SIGN (R1-1) (TYP.)  
 PROP. 12" STOP BAR (TYP.)  
 PROP. CONCRETE APRON (TYP.)  
 PROP. "NO STOPPING OR STANDING" SIGN (TYP.)  
 PROP. CONC. SIDEWALK (TYP.)  
 PROP. RETAINING WALL (TYP.)  
 PROP. 16.00' X 11.00' TRASH ENCLOSURE

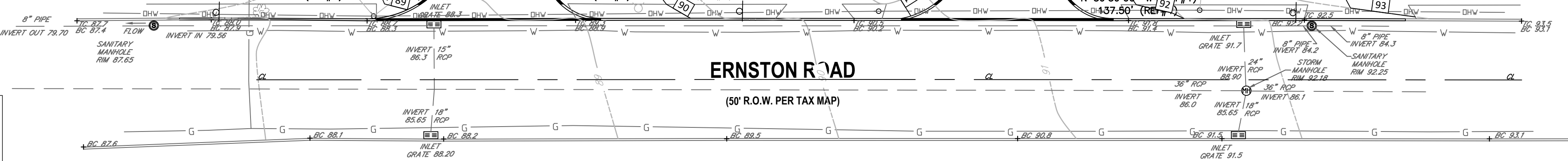


|     |                        |          |    |
|-----|------------------------|----------|----|
| NO. | REVISIONS              | DATE     | BY |
| 1   | PER REVIEW COMMENTS    | 02/09/23 | EC |
| 2   | PER ENGINEERING REVIEW | 06/19/23 | LF |
| 3   | PER COUNTY REVIEW      | 10/25/23 | AK |

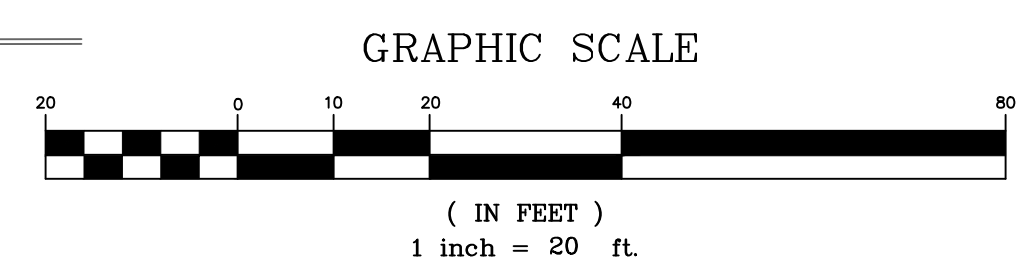
ADNAN A. KHAN, P.E., C.M.E.  
 PROFESSIONAL ENGINEER  
 DATE: 10/25/23  
 P.A. LICENSE NO. 49652  
 M.D. LICENSE NO. 41803

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 Pennsylvania Certificate of Authority No.: 3771354

TAX LOTS 23, 24, 25 & 28 BLOCK 444.04  
 212, 214 & 216 ERNSTON ROAD  
 BOROUGH OF SAYREVILLE  
 MIDDLESEX COUNTY, NEW JERSEY  
**SITE DEVELOPMENT PLAN**  
**FIRST FLOOR**  
 JOB NUMBER: 21-1009  
 SCALE: AS SHOWN  
**C-04**  
 SHEET 4 OF 19



| LEGEND |                           |
|--------|---------------------------|
|        | - EXISTING SPOT ELEVATION |
|        | - EXISTING CONTOUR        |
|        | - PROPOSED CONTOUR        |
|        | - PROPOSED SPOT ELEVATION |



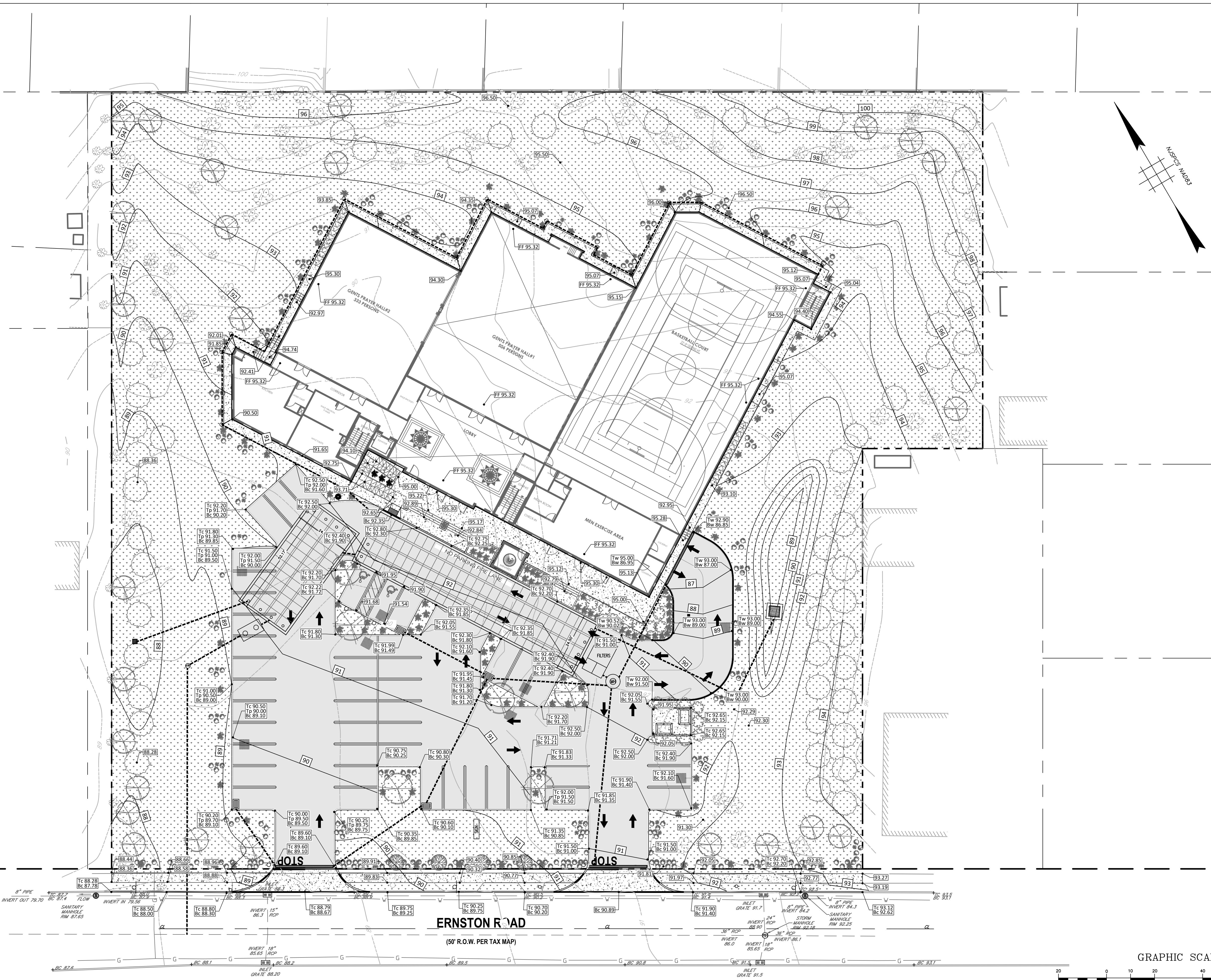
|  |  |
|--|--|
| <b>TAX LOTS 23, 24, 25 &amp; 28 BLOCK 444.04</b> |  |
| <b>212, 214 &amp; 216 ERNSTON ROAD</b>           |  |
| <b>BOROUGH OF SAYREVILLE</b>                     |  |
| <b>MIDDLESEX COUNTY, NEW JERSEY</b>              |  |
| <b>GRADING PLAN</b>                              |  |
| <b>BASEMENT</b>                                  |  |
| JOB NUMBER:<br>21-1009                           |  |
| SCALE: AS SHOWN                                  |  |
| <b>C-05</b>                                      |  |
| SHEET 5 OF 19                                    |  |

|   |   |
|---|---|
| <b>ADNAN A. KHAN, P.E., C.M.E.</b><br>PROFESSIONAL ENGINEER<br><br>N.J. LICENSE NO. 39812 P.A. LICENSE NO. 4965E<br>N.Y. LICENSE NO. 08645 M.D. LICENSE NO. 41803 | <b>AWZ ENGINEERING, INC.</b><br>ENGINEERS • SCIENTISTS • CONSULTANTS<br>Main Office: 150 River Road, Suite B3, Montville, NJ 07045<br>Pennsylvania Office: Scranton, PA 18504<br>Tel: 973-588-7080 Fax: 973-588-7079<br>www.awzengineering.com e-mail: info@awzengineering.com<br>New Jersey Certificate of Authorization No.: 24GA28118400<br>Pennsylvania Certificate of Authority No.: 3771354 |
|---|---|

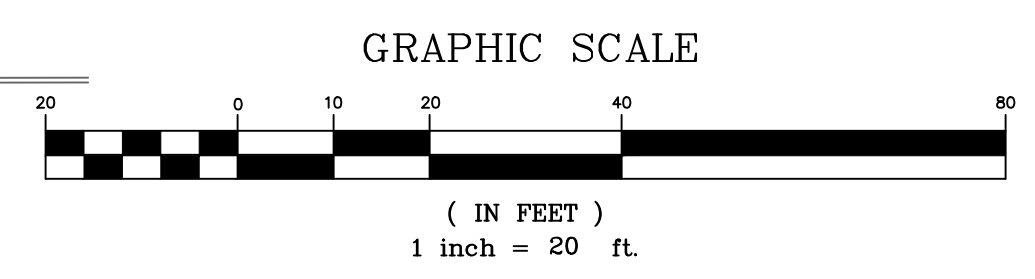
  

|                    |                    |                   |                   |
|--------------------|--------------------|-------------------|-------------------|
| DRAWN BY:<br>LF    | DESIGNED BY:<br>AK | DATE:<br>12/20/21 | DATE:<br>12/20/21 |
| APPROVED BY:<br>AK | REVISIONS:<br>NO.  | DATE:<br>06/19/23 | DATE:<br>06/19/23 |



| LEGEND |                           |
|--------|---------------------------|
|        | - EXISTING SPOT ELEVATION |
|        | - EXISTING CONTOUR        |
|        | - PROPOSED CONTOUR        |
|        | - PROPOSED SPOT ELEVATION |
| Tc     | - TOP OF CURB             |
| Tp     | - TOP OF PAVEMENT         |
| Bc     | - BOTTOM OF CURB          |
| Tw     | - TOP OF WALL             |
| Bw     | - BOTTOM OF WALL          |

**ERNSTON ROAD**  
(50' R.O.W. PER TAX MAP)



| NO. | REVISIONS         | DATE     | BY | APP. |
|-----|-------------------|----------|----|------|
| 1   | PER COUNTY REVIEW | 12/20/21 | AK | AK   |
| 2   | PER COUNTY REVIEW | 12/20/21 | AK | AK   |

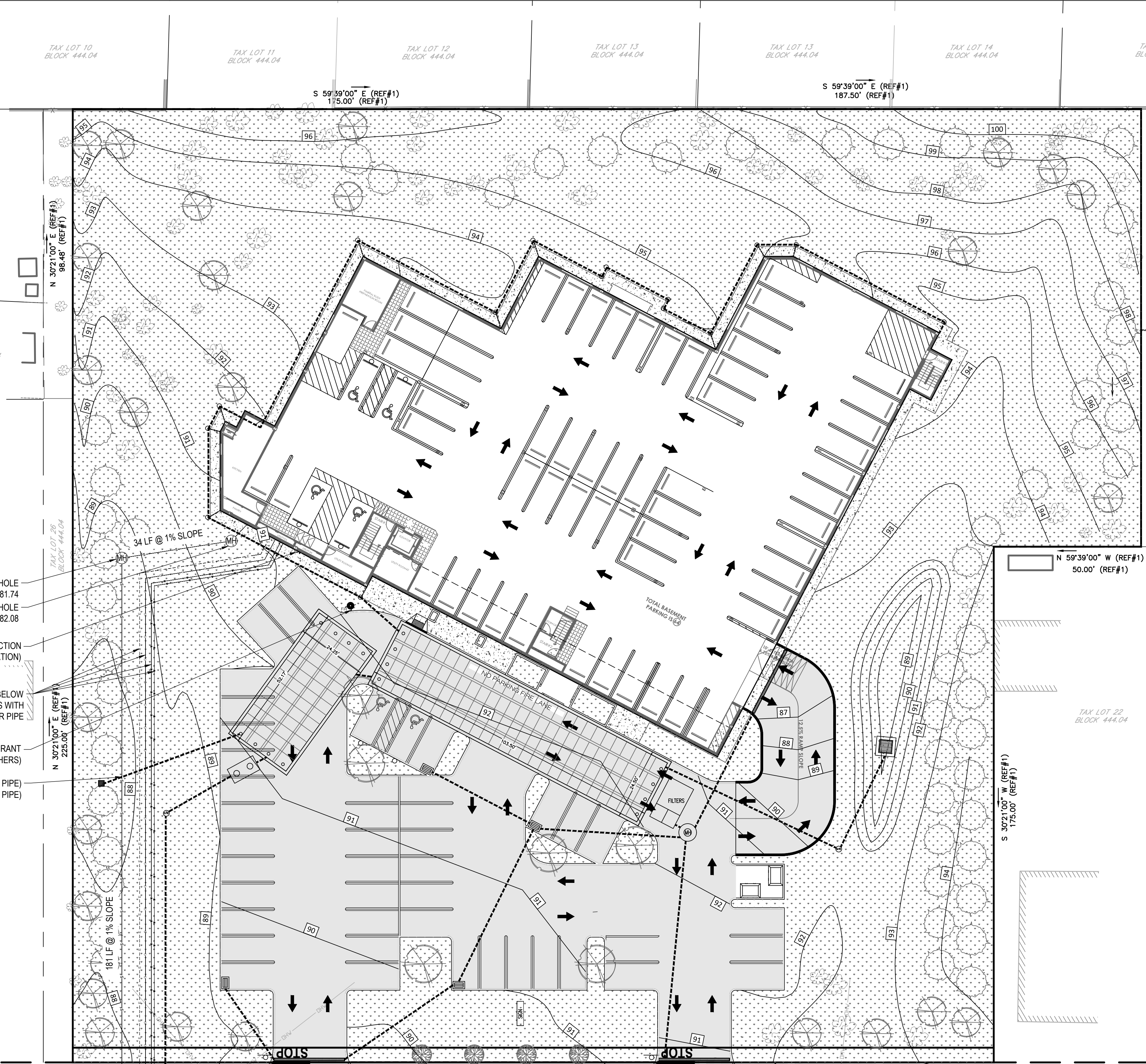
**ADNAN A. KHAN, P.E., C.M.E.**  
PROFESSIONAL ENGINEER  
*Adnan A. Khan*  
DATE: 10/25/23  
P.A. LICENSE NO. 4965E  
M.D. LICENSE NO. 41803

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Pennsylvania Certificate of Authority No.: 3771354

TAX LOTS 23, 24, 25 & 28 BLOCK 444.04  
212, 214 & 216 ERNSTON ROAD  
BOROUGH OF SAYREVILLE  
MIDDLESEX COUNTY, NEW JERSEY  
**GRADING PLAN**  
**FIRST FLOOR**

JOB NUMBER:  
21-1009  
SCALE: AS SHOWN  
**C-06**  
SHEET 6 OF 19

| LOT COVERAGE CALCULATIONS                   |                   |                   |
|---|-------------------|-------------------|
| Block 444.04, Lots 23, 24, 25 & 28          |                   |                   |
| DESCRIPTION                                 | EXISTING          | PROPOSED          |
| Lot Area                                    | 108,511.50        | 108,511.50        |
| 2.5 Story Frame Dwelling No. 212            | 1,591.43          | 0.00              |
| Shed Lot 25                                 | 264.31            | 0.00              |
| 2.5 Story Frame Dwelling No. 214            | 999.98            | 0.00              |
| 1 Story Frame Garage Lot 24                 | 438.86            | 0.00              |
| Shed Lot 24                                 | 237.28            | 0.00              |
| 2.5 Story Frame Dwelling No. 216            | 1,021.58          | 0.00              |
| 1 Story Office Lot 23                       | 772.38            | 0.00              |
| Covered Prayer Area                         | 1,651.17          | 0.00              |
| Proposed Building                           | 0.00              | 23,082.52         |
| <b>Total Building</b>                       | <b>6,976.99</b>   | <b>23,082.52</b>  |
| Conc. Pad                                   | 268.80            | 176.00            |
| Brick Pavers                                | 398.53            | 0.00              |
| A/C Units Pad                               | 24.46             | 0.00              |
| Conc. Drive, Landing, Steps, Walk and Slate | 1,961.03          | 0.00              |
| Conc. Wall                                  | 304.43            | 111.35            |
| Prop. Sign                                  | 0.00              | 18.56             |
| Prop. Minaret                               | 0.00              | 139.02            |
| Prop. Concrete Sidewalk/Steps/Ramp          | 0.00              | 3,963.80          |
| Prop. Conc. Curb                            | 0.00              | 620.07            |
| <b>Total Concrete</b>                       | <b>2,957.25</b>   | <b>5,028.80</b>   |
| <b>Pavement</b>                             | <b>11,211.68</b>  | <b>20,537.76</b>  |
| <b>Wood Deck</b>                            | <b>755.94</b>     | <b>0.00</b>       |
| <b>Railroad Tie Wall</b>                    | <b>21.32</b>      | <b>0.00</b>       |
| <b>Total Wood</b>                           | <b>777.26</b>     | <b>0.00</b>       |
| <b>Gravel Drive</b>                         | <b>1,375.58</b>   | <b>0.00</b>       |
| <b>Green Area/Dirt</b>                      | <b>85,212.74</b>  | <b>59,862.42</b>  |
| <b>TOTAL</b>                                | <b>108,511.50</b> | <b>108,511.50</b> |
| <b>Pervious</b>                             | 85,212.74         | 59,862.42         |
| <b>Impervious</b>                           | 23,298.76         | 48,649.08         |
| <b>Lot Coverage</b>                         | 21.47%            | 44.83%            |
| <b>Building Coverage</b>                    | 6.43%             | 21.27%            |



**SEWER DEMAND WORKSHEET:**

AS PER N.J.A.C. 7:14A-23.3 (a) - PROJECTED FLOW IS AS FOLLOWS:

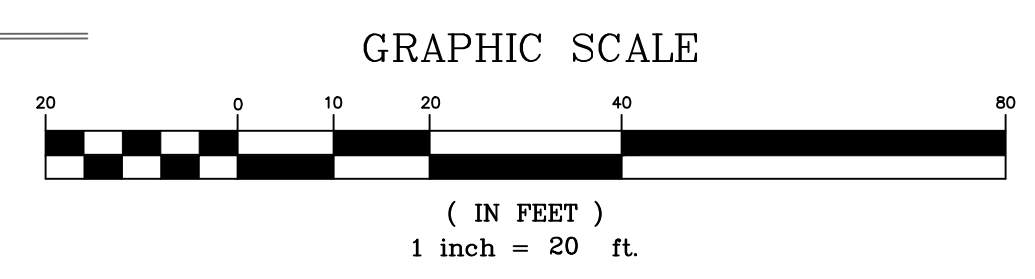
HOUSE OF WORSHIP = 3 GALLONS PER DAY PER SEAT = 973 x 3 = 2,919 GPD  
 CLASSROOM = 10 GALLONS PER DAY PER STUDENT = 35 x 10 = 350 GPD  
 OFFICE = 0.100 GALLONS PER SQUARE FEET = 270 x 0.1 = 27 GPD

**TOTAL = 3,296 GPD**

- PROP. SANITARY MANHOLE INV. = 81.74
- PROP. SANITARY MANHOLE INV. = 82.08
- PROP. SIAMASE CONNECTION (REFER TO MEP PLANS FOR FINAL LOCATION)
- UTILITY LINES TO BE SET AT LEAST 7 FT. BELOW PROPOSED GRADE TO AVOID CONFLICTS WITH STORM SEWER PIPE
- PROP. FIRE HYDRANT (BY OTHERS)
- INV. = 81.01 (SEWER PIPE)
- INV. = 85.22 (STORM PIPE)

| LEGEND |                           |
|--------|---------------------------|
|        | - EXISTING SPOT ELEVATION |
|        | - EXISTING CONTOUR        |
|        | - PROPOSED CONTOUR        |
|        | - PROPOSED SPOT ELEVATION |

- PROP. 221 LF. 6" PVC SEWER LINE Inv. (in) = 82.14 (@ BLDG., VIF) Inv. (out) = 79.93 (@ MAIN, VIF) (MIN. SLOPE @ 1%)
- PROP. 3" K-COPPER WATER CONNECTION (BY OTHERS)
- PROP. 4" DIP-CLASS 52 FIRE CONNECTION (BY OTHERS)
- PROP. ELECTRIC LINE (BY OTHERS)
- PROP. GAS LINE (BY OTHERS)



|  |   |
|--|---|
| <p><b>ADNAN A. KHAN, P.E., C.M.E.</b><br/>         PROFESSIONAL ENGINEER</p> <p><i>Adnan A. Khan</i></p> <p>N.J. LICENSE NO. 39812 P.A. LICENSE NO. 49656<br/>         N.Y. LICENSE NO. 08645 M.D. LICENSE NO. 41803</p>           | <p><b>AWZ ENGINEERING, INC.</b><br/>         ENGINEERS • SCIENTISTS • CONSULTANTS</p> <p>Main Office: 150 River Road, Suite B3, Montville, NJ 07045<br/>         Pennsylvania Office: Scranton, PA 18504<br/>         Tel: 973-588-7080 Fax: 973-588-7079<br/>         www.awzengineering.com e-mail: info@awzengineering.com<br/>         New Jersey Certificate of Authority No.: 24GA28118400<br/>         Pennsylvania Certificate of Authority No.: 37171354</p> |
| <p>TAX LOTS 23, 24, 25 &amp; 28<br/>         BLOCK 444.04</p> <p>212, 214 &amp; 216 ERNSTON ROAD<br/>         BOROUGH OF SAYREVILLE<br/>         MIDDLESEX COUNTY, NEW JERSEY</p> <p><b>UTILITY PLAN<br/>         BASEMENT</b></p> | <p>JOB NUMBER:<br/>21-1009</p> <p>SCALE: AS SHOWN</p> <p><b>C-07</b><br/>         SHEET 7 OF 19</p>   |

**MIDDLESEX COUNTY NOTE:**

"A Stormwater Maintenance Agreement will be filed which sets forth documentation that any proposed drainage system and any and all stormwater (drainage swales/detention/retention/recharge facilities) will be adequately maintained in accordance with the standards of Middlesex County. Refer to the paragraph in the Stormwater Maintenance Agreement entitled 'Right of County of Middlesex to Maintain Drainage Basins'. Conditions that affect non-County facilities should be reviewed and approved by the appropriate jurisdictional agency."

CONTRACTOR TO LOCATE AND FIELD VERIFY EXISTING WATER, GAS AND SEWER LINES PRIOR TO ANY CONSTRUCTION ACTIVITY ON-SITE.

PROP. 6" PVC ROOF HEADER PIPE. REFER TO ARCH. PLANS FOR FINAL LOCATION (TYP)

PROP. 465 LF, 15" RCP PIPE FROM ROOF HEADER SYSTEM (0.89% SLOPE)

PROP. CLEAN OUT (TYP)

PROP. CULTEC RECHARGER 360HD 160 CHAMBERS TOTAL VOLUME : 9,533 CF INV. 85.00

PROP. 6 LF, 36" RCP MANIFOLD PIPE (0% SLOPE)

PROP. TYPE "B" INLET (B) TG = 91.49 INV. = 86.76

PROP. 49 LF, 12" RCP PIPE (SLOPE @ 0.5%) TAX LOT 27 BLOCK 444.04

PROP. YARD INLET WITH PURE FILTER TG = 87.03 INV. = 85.25

PROP. OUTLET CONTROL STRUCTURE TG ± 90.90 INV. (in) = 85.00 INV. (out) = 85.00 (6" Orifice) INV. (out) = 86.14 (2-10" Orifices) INV. (out) = 88.45 (Weir) INV. (out) = 84.90 (21" PIPE)

PROP. 38 LF, 12" RCP PIPE (SLOPE @ 2%)

PROP. 58 LF, 12" RCP PIPE (SLOPE @ 1%)

PROP. TYPE "B" INLET (D) TG = 90.10 INV. = 86.58

PROP. TYPE "B" INLET (A) TG = 89.70 INV. = 86.90

PROP. 29 LF, 12" RCP PIPE (SLOPE @ 0.10%)

PROP. 138 LF, 21" RCP DISCHARGE PIPE (SLOPE @ 0.38%) INV. (out) 84.37 (VIF)

PROP. 45 LF, 12" RCP PIPE (SLOPE @ 0.50%) PROP. TRENCH DRAIN (TD-1) TG ± 89.10 NV (in) = 86.87 INV (out) = 86.81

PROP. ABOVE GROUND BASIN TOP ELEV. = 92.00 BOTTOM ELEV. = 89.00 INV. = 89.00 TOTAL VOL. = 3,265 CF

PROP. TRENCH DRAIN (TD-3) TG = 86.90 INV. = 85.98

PROP. 44 LF, 8" HDPE PIPE (SLOPE @ 1.05%)

PROP. OUTLET CONTROL STRUCTURE TG ± 92.00 INV. (in) = 89.00 INV. (out) = 89.50 (2.5" Orifice) INV. (out) = 90.25 (3" Orifice) INV. (out) = 91.95 (Weir) INV. (out) = 89.00 (12" PIPE)

PROP. 99 LF, 12" RCP PIPE

PROP. KRACKEN FILTER 143 - 10" CARTRIDGES TG ± 91.56 INV. (out) = 85.01 INV. (in) = 85.51

PROP. CLEAN OUT INV. 88.00

PROP. 6" Ø STORM MANHOLE TG ± 92.50 INV. = 85.52

PROP. 48 LF, 15" RCP PIPE (SLOPE @ 1%)

PROP. TYPE "B" INLET (C) TG = 91.45 INV. = 86.00

PROP. 74 LF, 12" RCP PIPE (SLOPE @ 1%)

PROP. TRENCH DRAIN (TD-2) TG ± 90.95 INV. = 85.26

**LEGEND**

|  |                           |
|--|---------------------------|
|  | - EXISTING SPOT ELEVATION |
|  | - EXISTING CONTOUR        |
|  | - PROPOSED CONTOUR        |
|  | - PROPOSED SPOT ELEVATION |

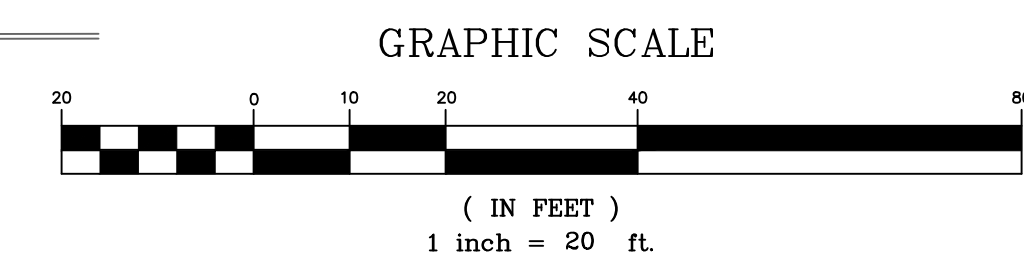
**MAINTENANCE OF UNDERGROUND STORM FACILITIES:**

**UNDERGROUND STORM SYSTEM** - The underground drainage system, including all pipes, manholes, catch basins, inlets and appurtenances must be inspected for clogging and excessive debris and sediment accumulation at least annually as well as after every storm exceeding 2 inches of rainfall. Sediment removal should take place when all runoff has drained from the conveyance network and the systems are reasonably dry. Disposal of debris, trash, sediment, and other waste material should be done at suitable disposal/recycling sites and in compliance with all applicable local, state, and federal waste regulations.

All structural components must be inspected for cracking, subsidence, breaching, wearing, and deterioration at least annually. The condition of surrounding and above lying materials shall be inspected for evidence of potential failures or deterioration.

Two people will be needed to perform routine maintenance of the conveyance systems. The routine equipment to be utilized for the maintenance tasks include a jet vacuum vehicle, shovels, lighting equipment and a wheel barrel or truck for the hauling off of debris. No manufacturer's instructions or user manuals are available for maintenance of these components. Maintenance would only take place in the adjacent components of the system, i.e. the catch basins, pipes, and other units outside the seepage pit system. Water, mosquito control chemicals, and concrete repair materials may also be required depending on the condition of the structure.

RESPONSIBLE PARTY FOR ALL STORM STRUCTURE MAINTENANCE See maintenance agreement for information regarding responsible parties for all storm structure maintenance.



|              |          |    |    |    |
|--------------|----------|----|----|----|
| DATE:        | 12/20/21 | AK | LF | AK |
| DESIGNED BY: | AK       | LF | AK | AK |
| DATE:        | 12/20/21 | AK | LF | AK |
| APPROVED BY: | AK       | LF | AK | AK |
| DATE:        | 06/23/23 | AK | LF | AK |
| NO.          | 1        | AK | LF | AK |
| NO.          | 2        | AK | LF | AK |
| NO.          | 1        | AK | LF | AK |
| NO.          | 1        | AK | LF | AK |

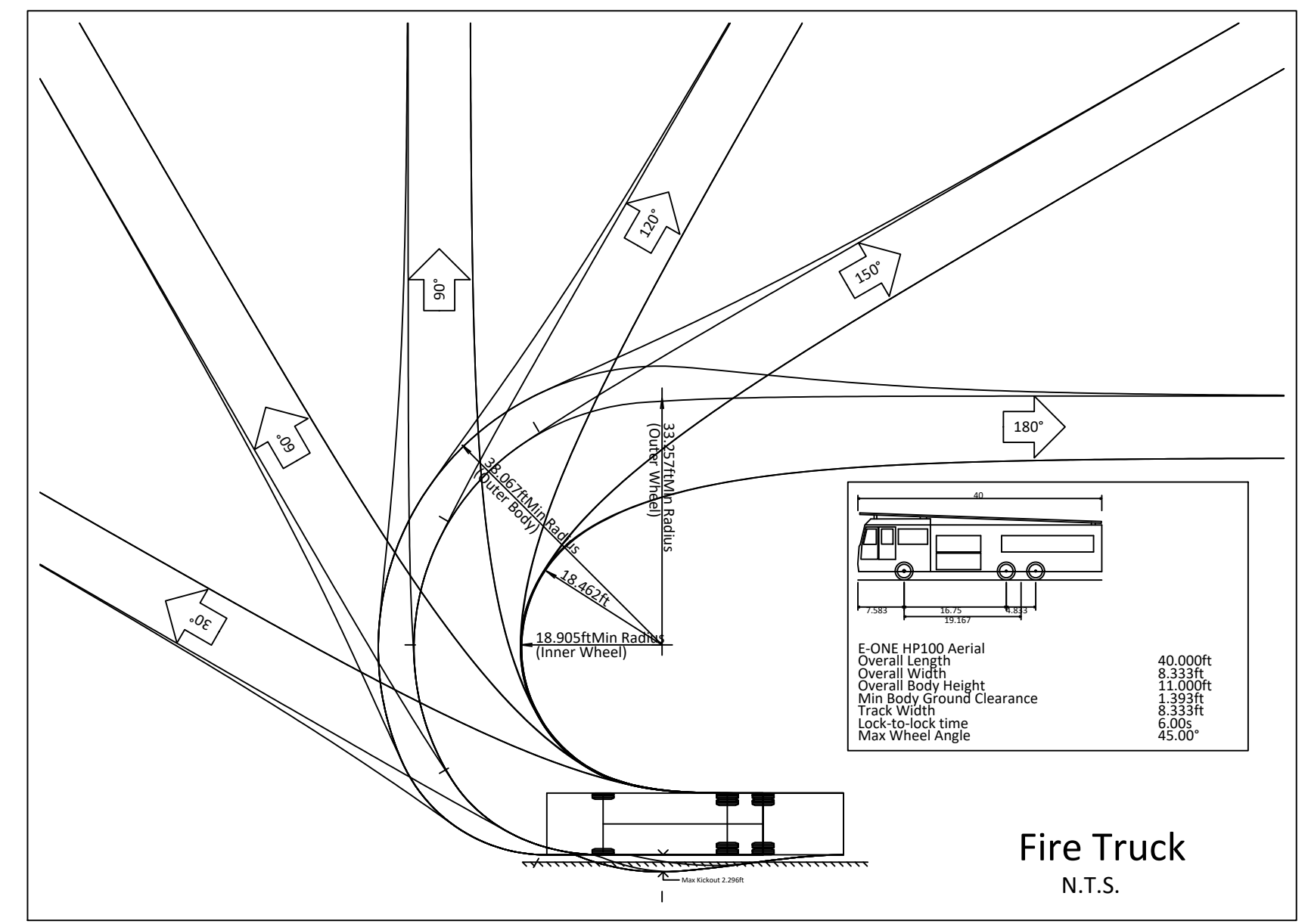
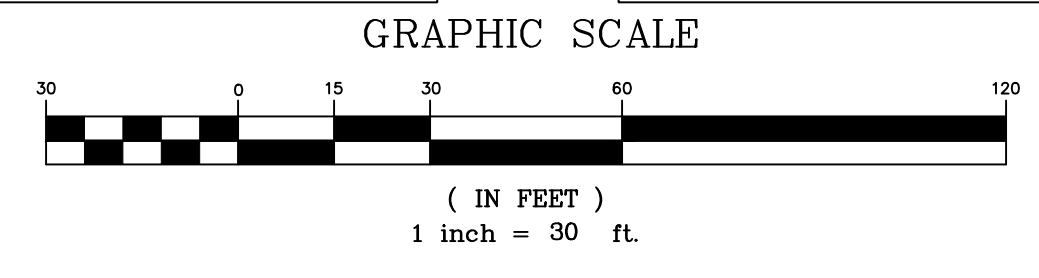
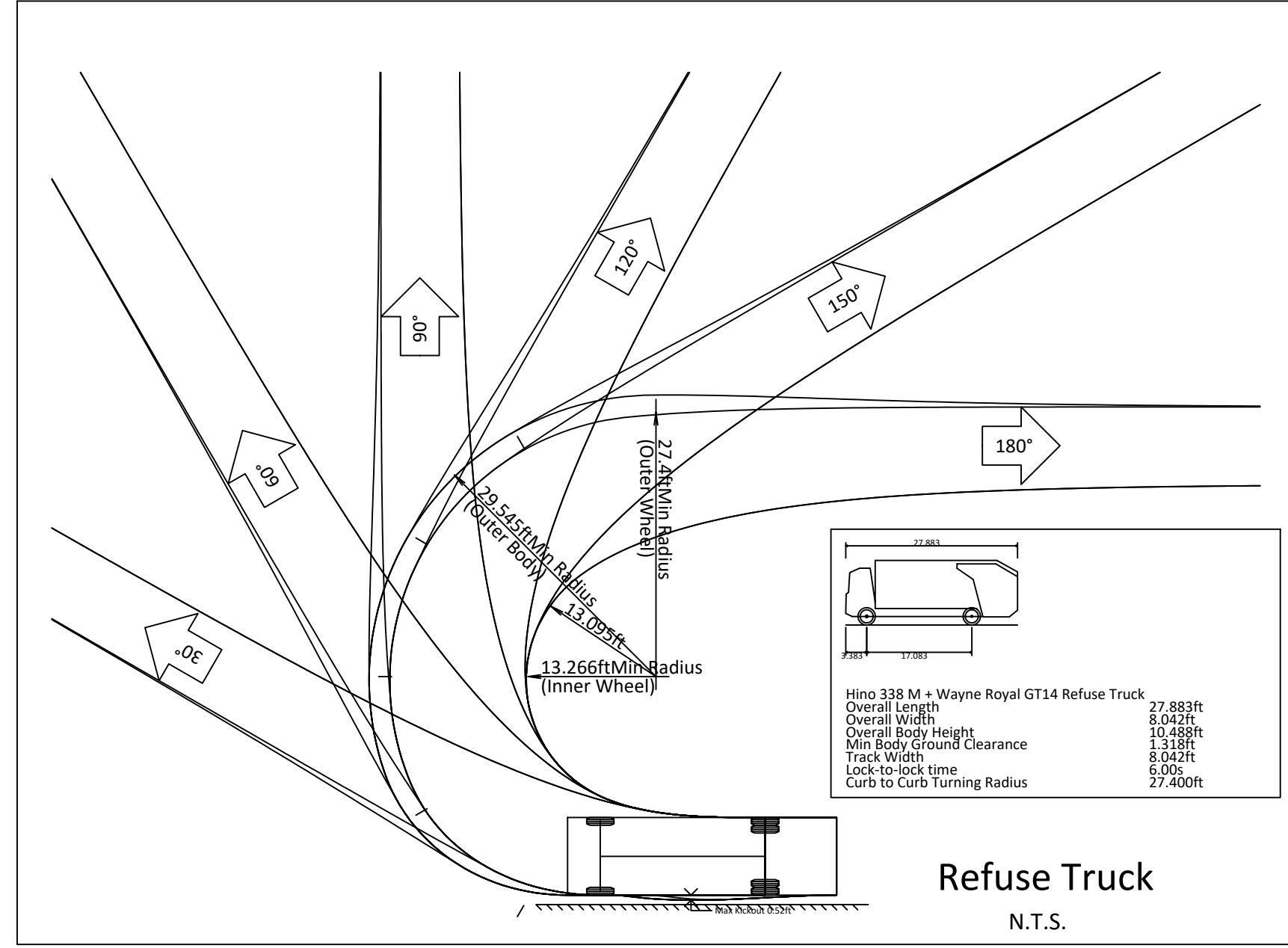
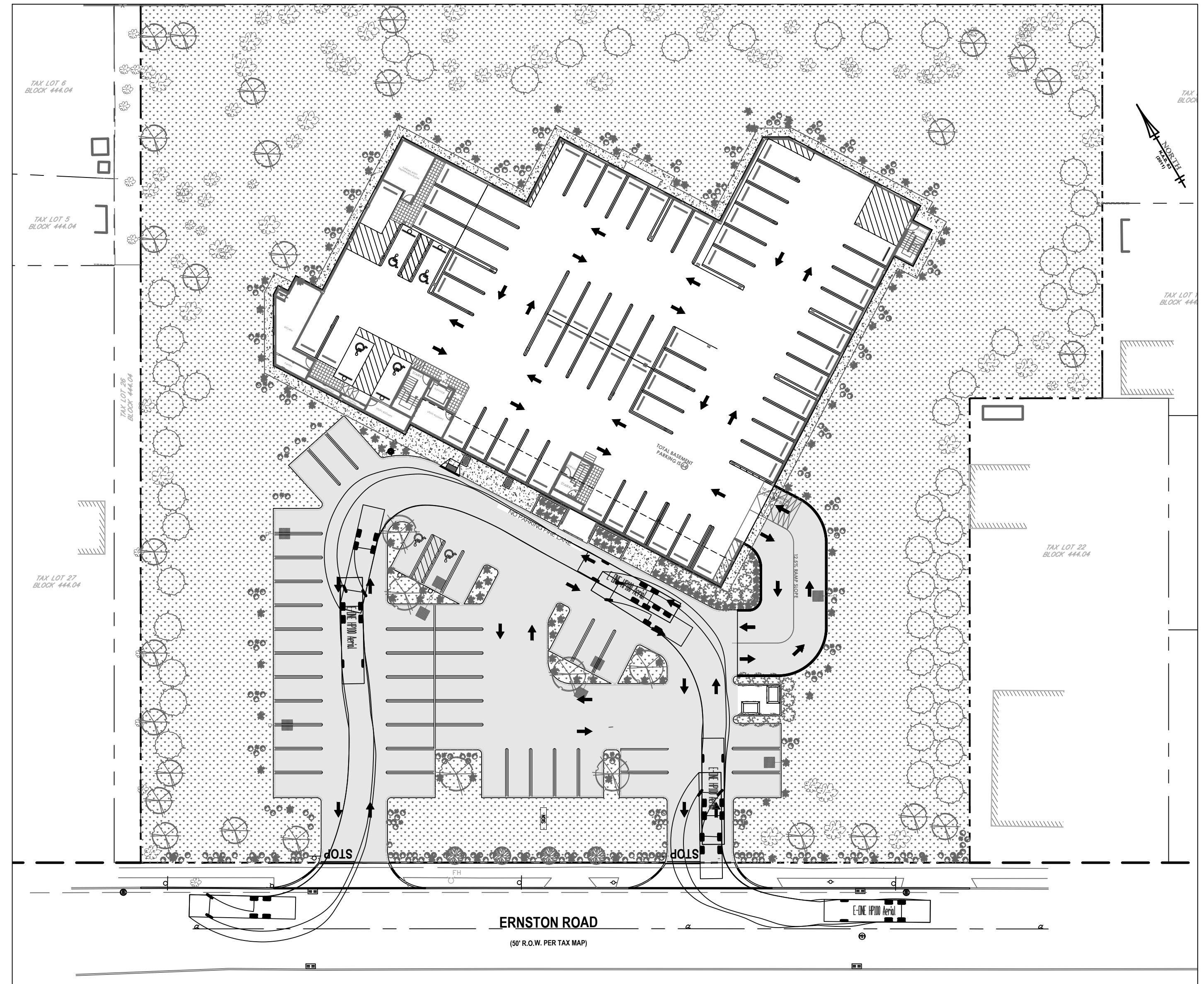
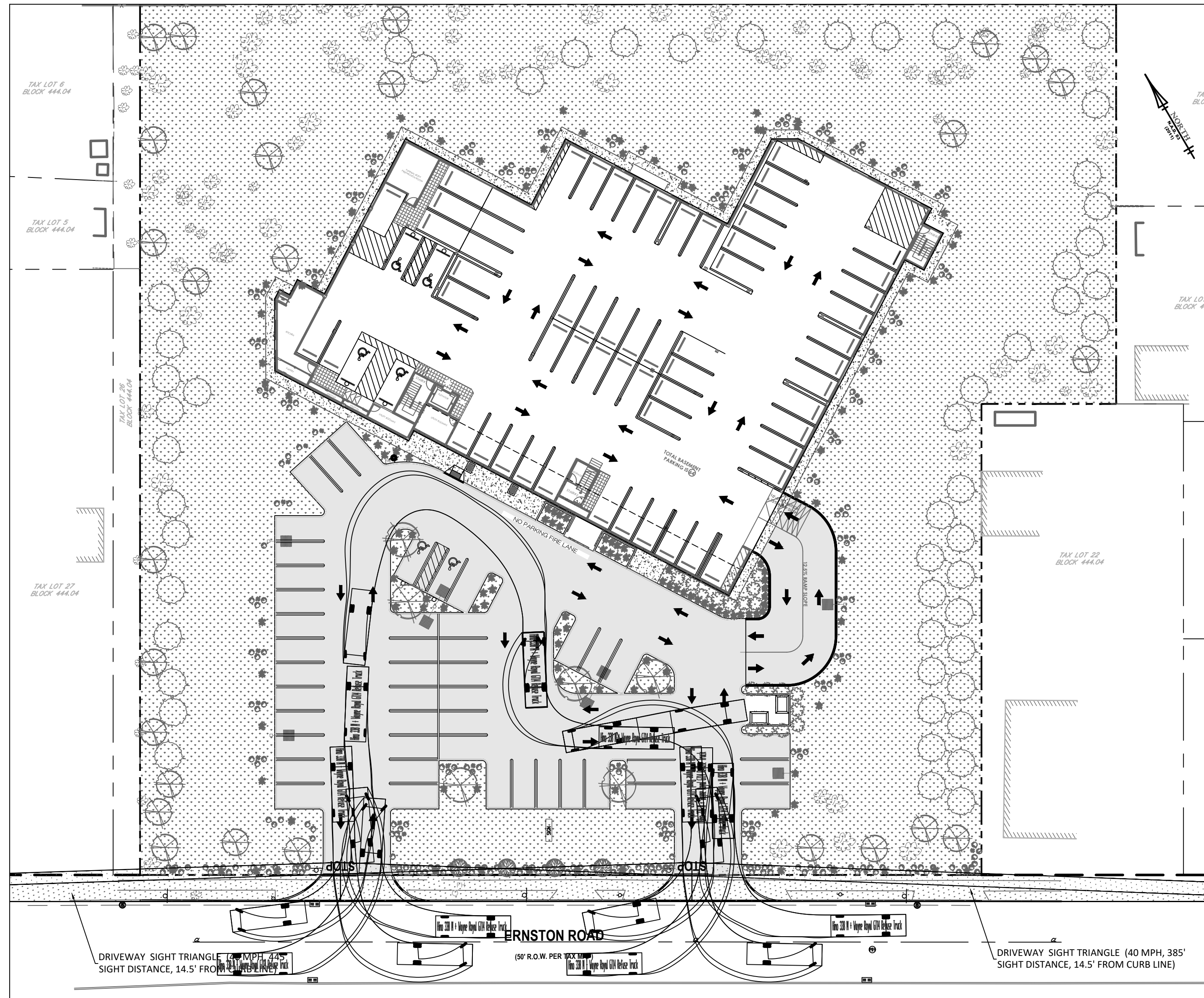
ADNAN A. KHAN, P.E., C.M.E.  
PROFESSIONAL ENGINEER  
DATE: 10/25/23  
P.A. LICENSE NO. 4965E  
M.D. LICENSE NO. 41803

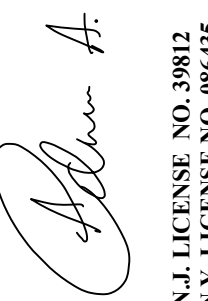
**AWZ ENGINEERING, INC.**  
ENGINEERS • SCIENTISTS • CONSULTANTS  
Main Office: 150 River Road, Suite B3, Montville, NJ 07045  
Pennsylvania Office: Scranton, PA 18504  
Tel: 973-588-7080 Fax: 973-588-7079  
www.awzengineering.com e-mail: info@awzengineering.com  
New Jersey Certificate of Authorization No.: 24GA28118400  
Pennsylvania Certificate of Authority No.: 3771354

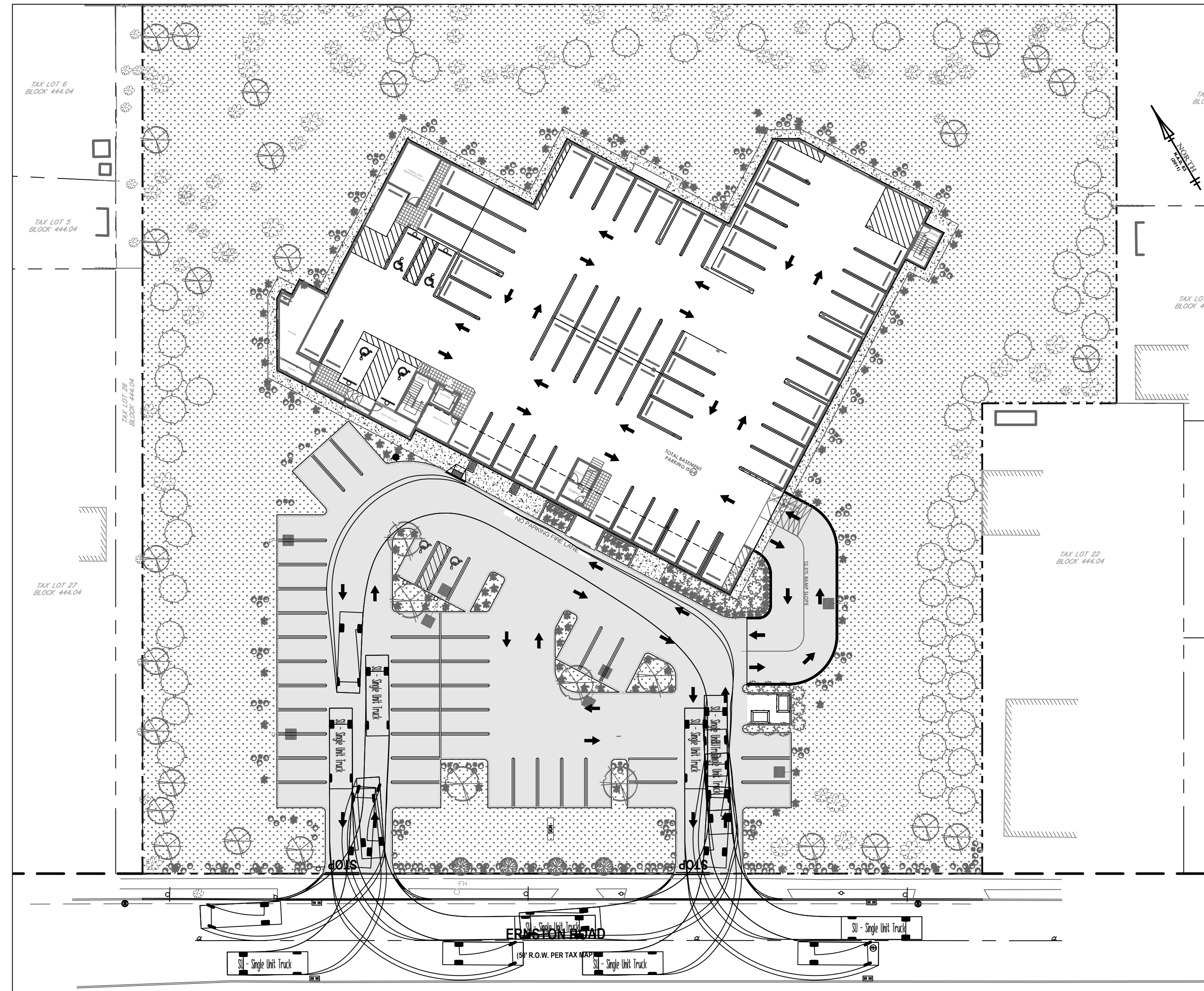
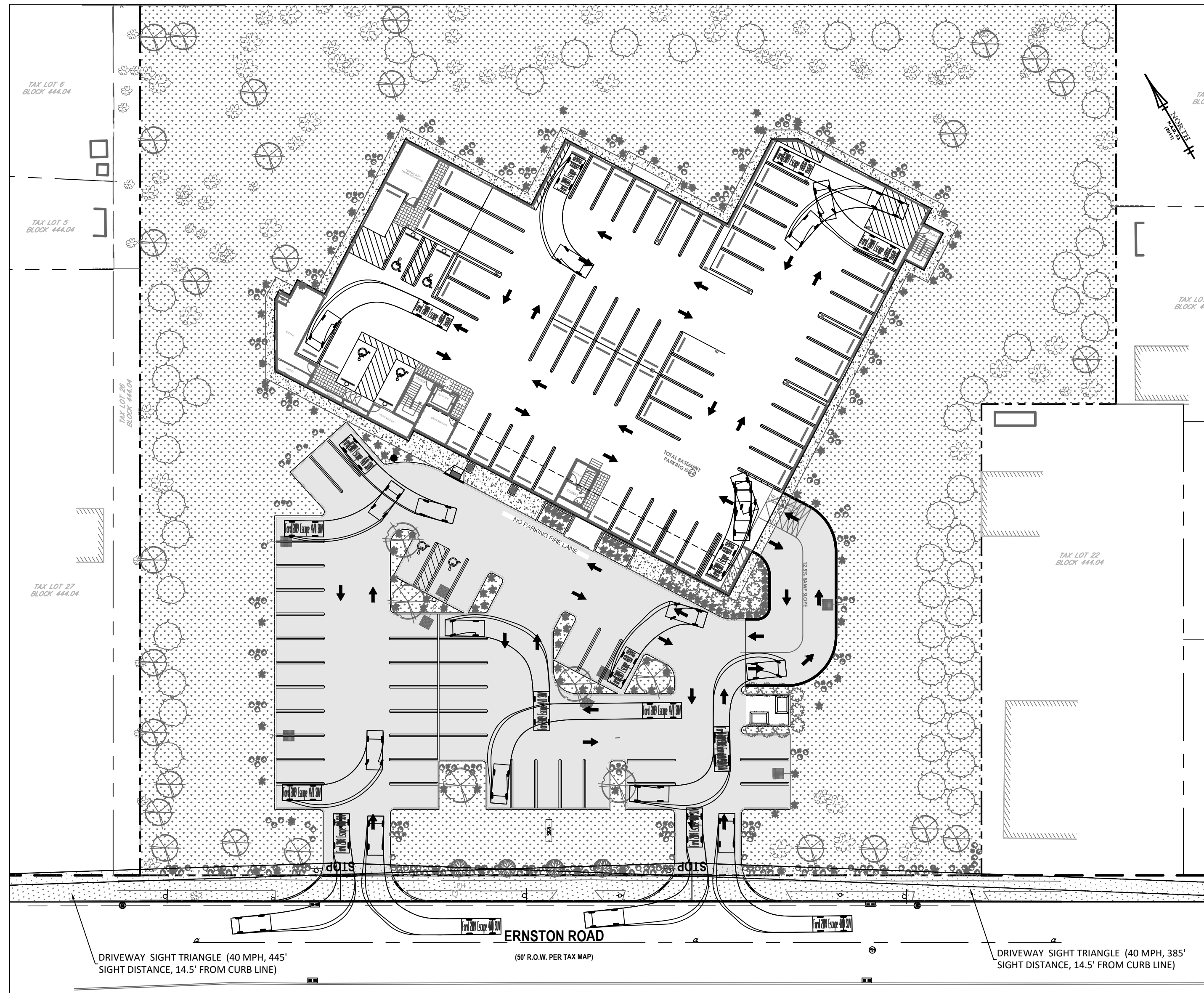
TAX LOTS 23, 24, 25 & 28 BLOCK 444.04  
212, 214 & 216 ERNSTON ROAD  
BOROUGH OF SAYREVILLE  
MIDDLESEX COUNTY, NEW JERSEY  
**UTILITY PLAN  
FIRST FLOOR**

JOB NUMBER:  
21-1009  
SCALE: AS SHOWN  
**C-09**  
SHEET 8 OF 19

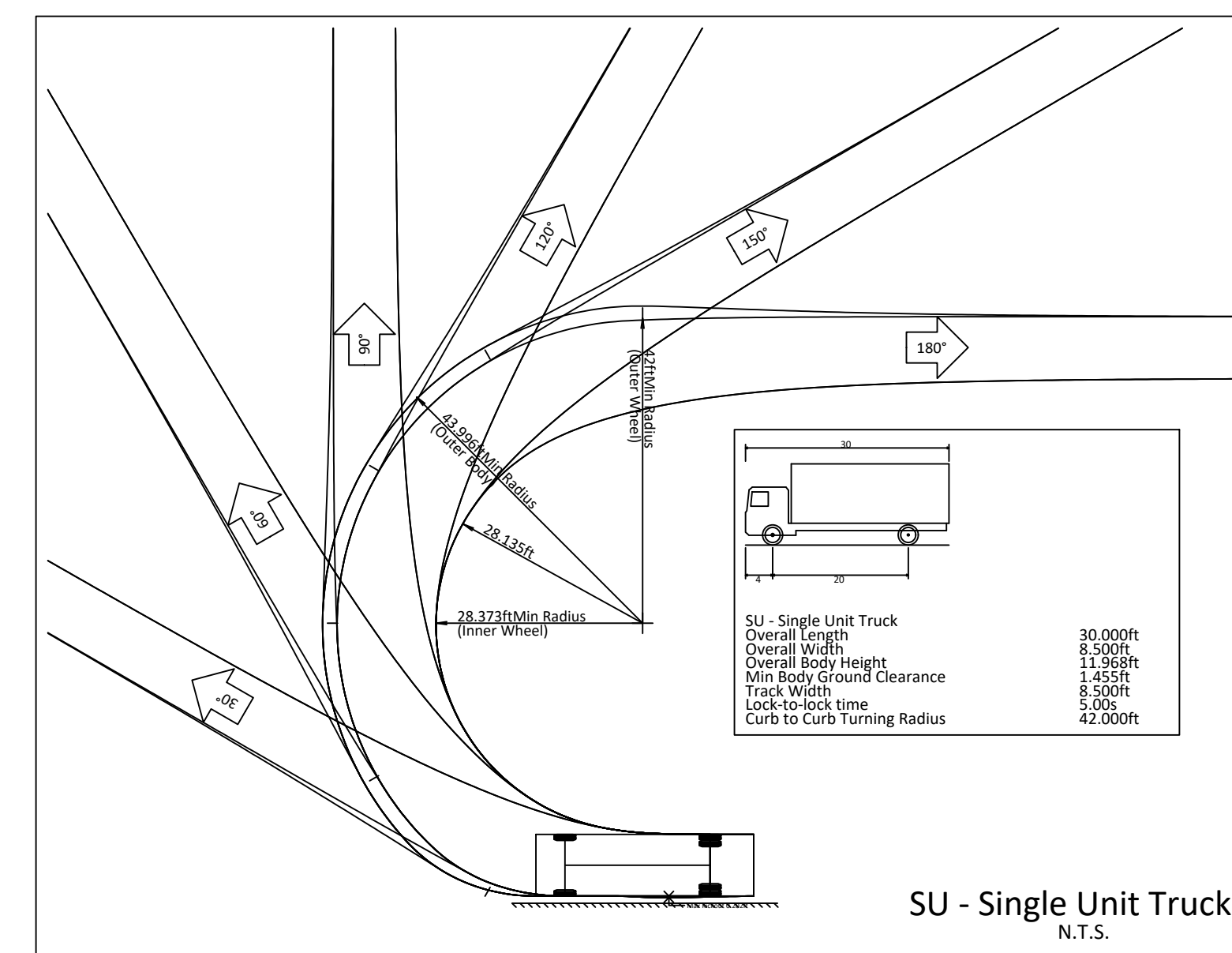
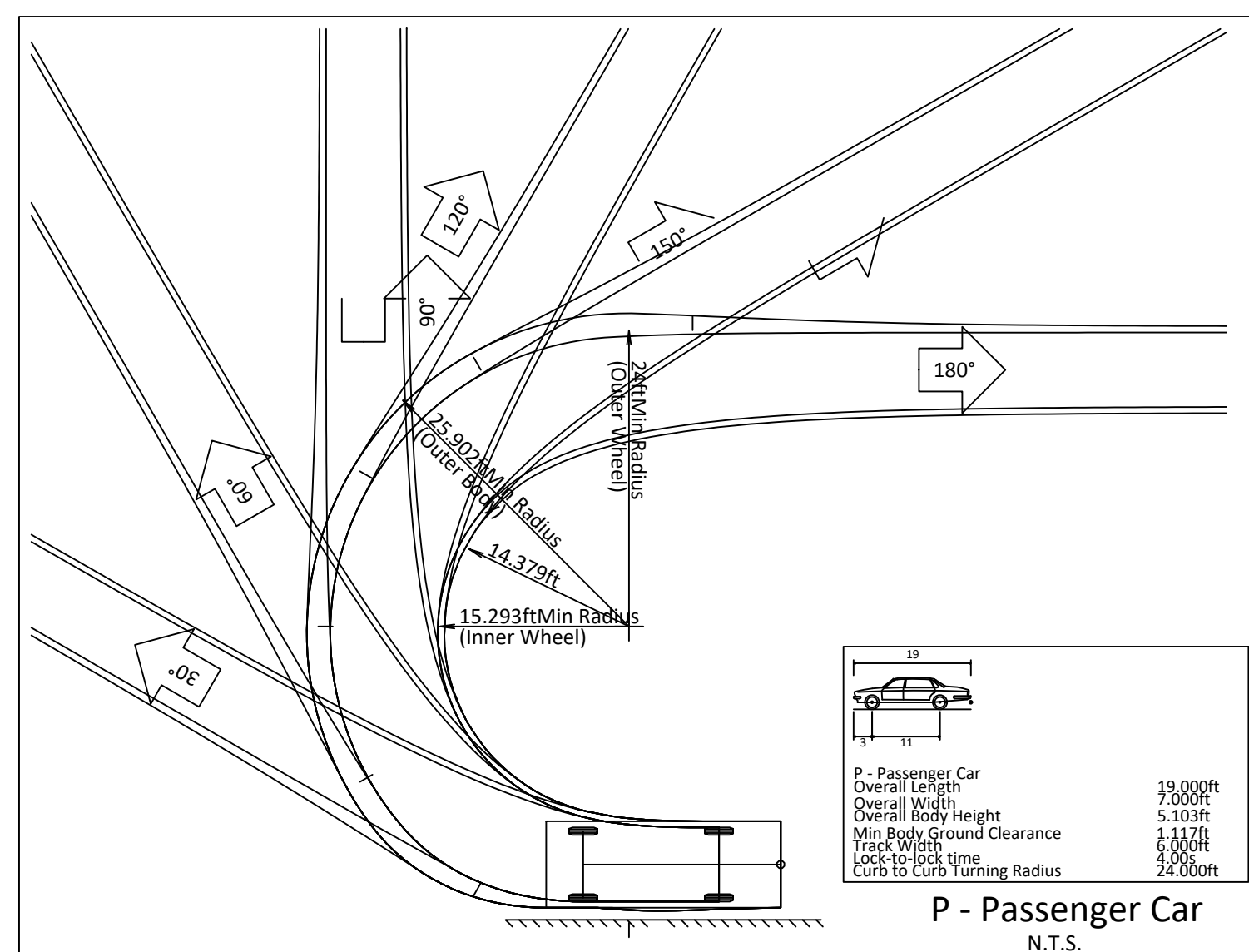
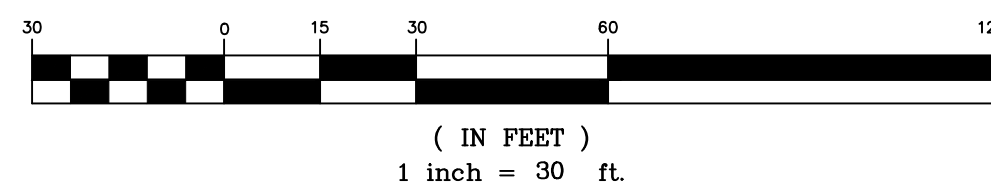




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|---|--|
| <b>AWZ ENGINEERING, INC.</b><br>ENGINEERS • SCIENTISTS • CONSULTANTS<br>Main Office: 150 River Road, Suite B3, Montville, NJ 07045<br>Pennsylvania Office: Scranton, PA 18504<br>Tel: 973-588-7080 Fax: 973-588-7079<br>www.awzengineering.com e-mail: info@awzengineering.com<br>New Jersey Certificate of Authorization No.: 24GA28118400<br>Pennsylvania Certificate of Authority No.: 3771354 |  |
| <b>ADNAN A. KHAN, P.E., C.M.E.</b><br>PROFESSIONAL ENGINEER<br><br>P.A. LICENSE NO. 4895E<br>M.D. LICENSE NO. 41803  | DRAWN BY: ECLL<br>DATE: 12/20/21<br>DESIGNED BY: AK<br>DATE: 12/20/21<br>APPROVED BY: NO.<br>DATE: 12/25/23<br>PER COUNTY REVIEW: LF<br>PER ENGINEERING REVIEW: LF<br>REVISIONS: 1<br>DATE: BY: APE<br>NO. DATE: |
| <b>TAX LOTS 23, 24, 25 &amp; 28 BLOCK 444.04</b><br><b>212, 214 &amp; 216 ERNSTON ROAD</b><br><b>BOROUGH OF SAYREVILLE</b><br><b>MIDDLESEX COUNTY, NEW JERSEY</b><br><b>TRAFFIC CIRCULATION PLAN</b><br><b>BASEMENT</b>   |  |
| JOB NUMBER:<br>21-1009  |  |
| SCALE: AS SHOWN   |  |
| <b>C-09</b><br>SHEET 9 OF 19  |  |

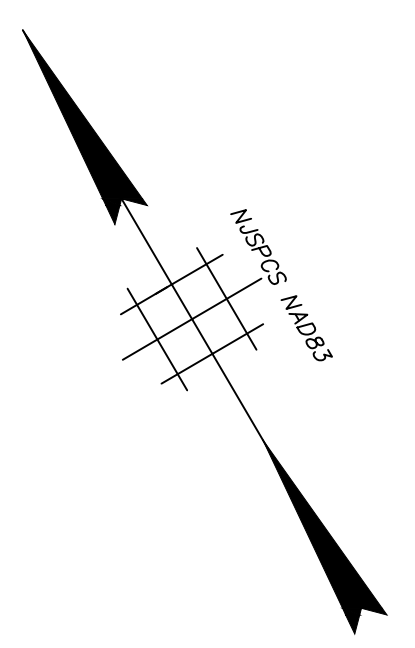
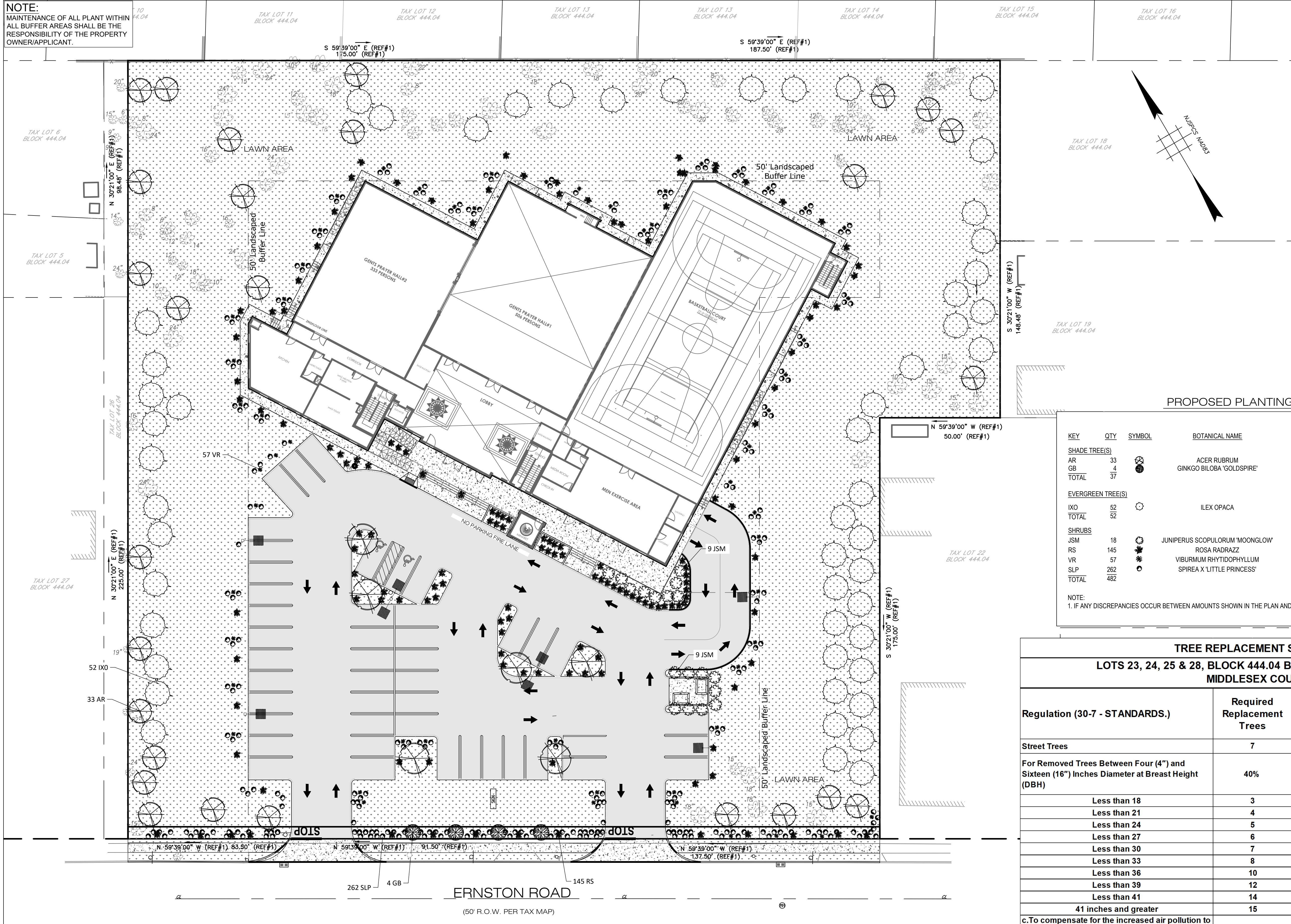


GRAPHIC SCALE



|  |   |
|--|---|
| <b>AWZ ENGINEERING, INC.</b><br>ENGINEERS • SCIENTISTS • CONSULTANTS<br>Main Office: 150 River Road, Suite B3, Montville, NJ 07045<br>Pennsylvania Office: Scranton, PA 18504<br>Tel: 973-588-7080 Fax: 973-588-7079<br>www.awzengineering.com e-mail: info@awzengineering.com<br>New Jersey Certificate of Authorization No.: 24GA28118400<br>Pennsylvania Certificate of Authority No.: 37171354 |   |
| <b>TAX LOTS 23, 24, 25 &amp; 28</b><br><b>BLOCK 444.04</b><br><b>212, 214 &amp; 216 ERNSTON ROAD</b><br><b>BOROUGH OF SAYREVILLE</b><br><b>MIDDLESEX COUNTY, NEW JERSEY</b><br><b>TRAFFIC CIRCULATION PLAN</b><br><b>BASEMENT</b>  | <b>JOB NUMBER:</b><br>21-1009<br><b>SCALE:</b> AS SHOWN<br><b>C-10</b><br>SHEET 10 OF 19  |
| <b>ADNAN A. KHAN, P.E., C.M.E.</b><br>PROFESSIONAL ENGINEER<br><i>Adnan A. Khan</i><br>DATE: 10/25/23<br>P.A. LICENSE NO. 48956<br>M.D. LICENSE NO. 41883  | <b>PER COUNTY REVIEW</b><br>1 PER ENGINEERING REVIEW<br>2 PER COUNTY REVIEW<br>DATE: 10/25/23<br>BY: APZ<br>DATE: 10/25/23<br>BY: AK                                      |
| <b>DRAWN BY:</b> ECU/L<br><b>DATE:</b> 12/20/21<br><b>DESIGNED BY:</b> AK<br><b>DATE:</b> 12/20/21<br><b>APPROVED BY:</b> AK<br><b>DATE:</b> 10/25/23  | © 2021 AWZ Engineering, Inc. All Rights Reserved. The copying or reuse of this document or portions thereof for other than the intended project or purpose is prohibited. |

**NOTE:**  
MAINTENANCE OF ALL PLANT WITHIN ALL BUFFER AREAS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER/APPLICANT.



**PROPOSED PLANTING SCHEDULE**

| KEY                      | QTY | SYMBOL | BOTANICAL NAME                  | COMMON NAME            | SIZE      | REMARKS |
|--------------------------|-----|--------|---------------------------------|------------------------|-----------|---------|
| <b>SHADE TREE(S)</b>     |     |        |                                 |                        |           |         |
| AR                       | 33  | ☉      | ACER RUBRUM                     | RED MAPLE              | 3-4" CAL  | B-B     |
| GB                       | 4   | ☉      | GINKGO BILOBA 'GOLDSPIRE'       | GOLDSPIRE              | 3-4" CAL  | B-B     |
| TOTAL                    | 37  |        |                                 |                        |           |         |
| <b>EVERGREEN TREE(S)</b> |     |        |                                 |                        |           |         |
| IXO                      | 52  | ☉      | ILEX OPACA                      | AMERICAN HOLLY         | 9-10'     | B-B     |
| TOTAL                    | 52  |        |                                 |                        |           |         |
| <b>SHRUBS</b>            |     |        |                                 |                        |           |         |
| JSM                      | 18  | ☉      | JUNIPERUS SCOPULORUM 'MOONGLOW' | MOONGLOW JUNIPER       | 3-4' HT   | B-B     |
| RS                       | 145 | ☉      | ROSA RADRAZ                     | KNOCKOUT ROSE          | 18-24"    | 2 GAL   |
| VR                       | 57  | ☉      | VIBURNUM RHYTIDOPHYLLUM         | LEATHERLEAF VIBURNUM   | 36-42" HT | B-B     |
| SLP                      | 262 | ☉      | SPIREA X 'LITTLE PRINCESS'      | LITTLE PRINCESS SPIREA | 24" HT    | 1 GAL   |
| TOTAL                    | 482 |        |                                 |                        |           |         |

NOTE:  
1. IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

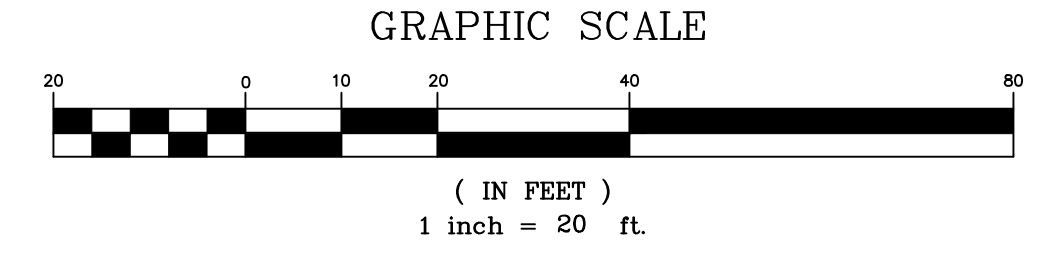
**TREE REPLACEMENT SCHEDULE**  
**LOTS 23, 24, 25 & 28, BLOCK 444.04 BOROUGH OF SAYREVILLE MIDDLESEX COUNTY**

| Regulation (30-7 - STANDARDS.)  | Required Replacement Trees | Removed              | Required Number of replacement trees of three (3") inches DBH or greater |
|---|----------------------------|----------------------|--|
| Street Trees  | 7                          | -                    | 7  |
| For Removed Trees Between Four (4") and Sixteen (16") Inches Diameter at Breast Height (DBH)  | 40%                        | 50% (14 trees of 28) | 6  |
| Less than 18  | 3                          | N/A                  | N/A  |
| Less than 21  | 4                          | 5                    | 20   |
| Less than 24  | 5                          | 3                    | 15   |
| Less than 27  | 6                          | 4                    | 24   |
| Less than 30  | 7                          | 1                    | 7  |
| Less than 33  | 8                          | 1                    | 8  |
| Less than 36  | 10                         | N/A                  | N/A  |
| Less than 39  | 12                         | N/A                  | N/A  |
| Less than 41  | 14                         | N/A                  | N/A  |
| 41 inches and greater   | 15                         | N/A                  | N/A  |
| c.To compensate for the increased air pollution to be generated from a residential, commercial or industrial site as a result of vehicular uses, the development plan shall include the addition of one (1) tree per every two (2) parking spaces. (109 Spaces) | 55                         | -                    | 55   |
| <b>TOTAL</b>  |                            | <b>42</b>            | <b>142</b>   |

**Notes:**  
Approximately 37, 3" -4" caliper replacement trees are proposed for the site. Total deficit = 105 trees.

**PERCENTAGE OF REQUIRED LANDSCAPE:**

| REGULATION                    | REQUIREMENT | PROPOSED     |
|-------------------------------|-------------|--------------|
| 10% OF PROPOSED PARKING AREAS | 2,025.47 SF | 2,187.63 SF  |
| 20% OF LOT                    | 21,702.3 SF | 59,862.42 SF |
| 5% OF LOT NEAR RIGHT OF WAY   | 5,425.58 SF | 6,395.52 SF  |



|                 |                |
|-----------------|----------------|
| DRAWN BY: EC    | DATE: 12/20/21 |
| DESIGNED BY: AK | DATE: 12/20/21 |
| APPROVED BY: AK | DATE: 12/20/21 |
| NO.:            | REVISIONS:     |
| BY: APZ         | DATE: 12/25/21 |
| LF: AK          | 02/25/23       |
| EC: AK          | 06/12/23       |
| LF: AK          | 06/12/23       |
| EC: AK          | 08/09/23       |
| APZ: AK         | 08/09/23       |

ADNAN A. KHAN, P.E., C.M.E.  
PROFESSIONAL ENGINEER

ADNAN A. KHAN  
DATE: 10/25/23

N.J. LICENSE NO. 39812 P.A. LICENSE NO. 4965E  
N.Y. LICENSE NO. 08645 M.D. LICENSE NO. 41803

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TAX LOTS 23, 24, 25 & 28 BLOCK 444.04  
212, 214 & 216 ERNSTON ROAD  
BOROUGH OF SAYREVILLE  
MIDDLESEX COUNTY, NEW JERSEY

**LANDSCAPE PLAN**

JOB NUMBER:  
21-1009

SCALE: AS SHOWN

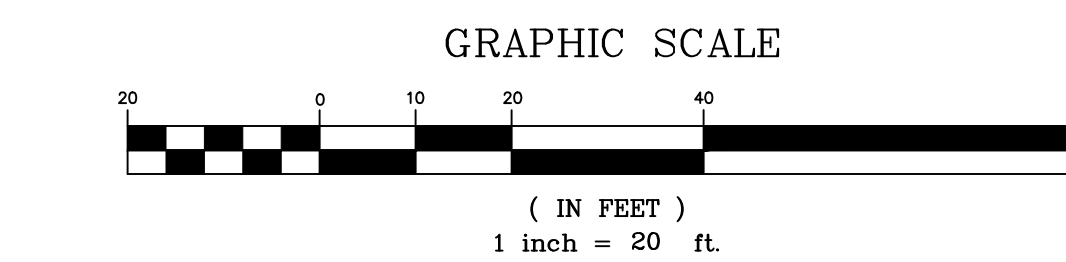


**HOLOPHANE**  
LEADER IN LIGHTING SOLUTIONS

Parkpak® LED

PROP. CEILING MOUNTED  
LIGHT FIXTURE  
(TYP)

THIS PLAN TO BE USED FOR LIGHTING PURPOSE ONLY



| Luminaire list (Building 1) |              |   |                           |         |               |                   |                |          |
|-----------------------------|--------------|---|---------------------------|---------|---------------|-------------------|----------------|----------|
| Index                       | Manufacturer | Article name  | Item number               | Fitting | Luminous flux | Light loss factor | Connected load | Quantity |
| 1                           | Holophane    | Holophane ParkPak Square LED, LED Performance Package HP10, 25W, 3000K CCT, Voltage, Zero uplight, Type V, Medium | PPSQL2 HP10 30K XX FC TSM | 1x      | 2899 lm       | 0.80              | 25 W           | 25       |

|     |           |      |    |
|-----|-----------|------|----|
| NO. | REVISIONS | DATE | BY |
|     |           |      |    |
|     |           |      |    |
|     |           |      |    |

|             |          |
|-------------|----------|
| DESIGNED BY | DATE     |
| AK          | 12/20/21 |
| APPROVED BY | DATE     |
| AK          | 12/20/21 |

ADNAN A. KHAN, P.E., C.M.E.  
PROFESSIONAL ENGINEER

*Adnan A. Khan* DATE 10/25/23

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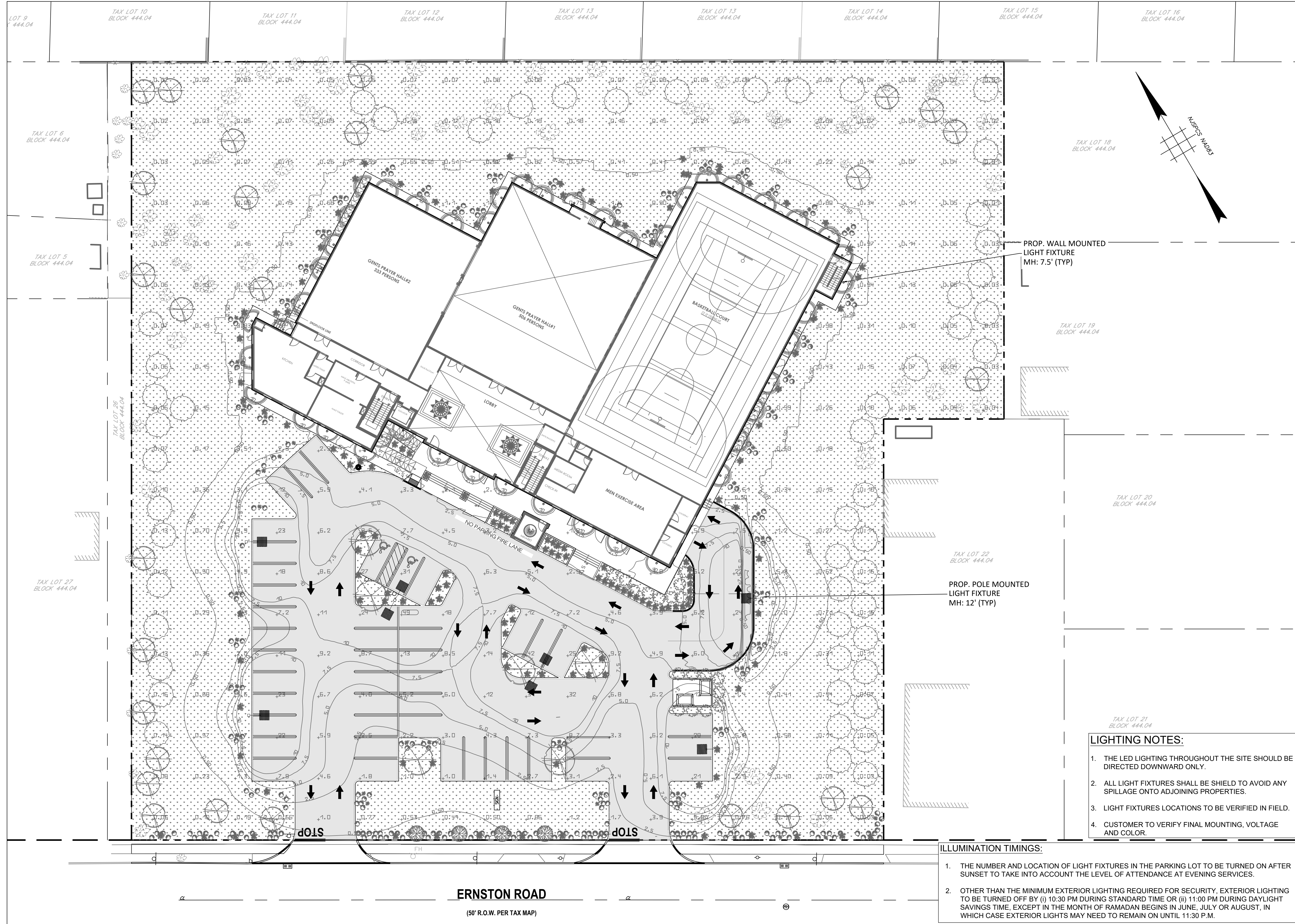
TAX LOTS 23, 24, 25 & 28 BLOCK 444.04  
212, 214 & 216 ERNSTON ROAD  
BOROUGH OF SAYREVILLE  
MIDDLESEX COUNTY, NEW JERSEY

**LIGHTING PLAN  
BASEMENT**

JOB NUMBER:  
21-1009

SCALE: AS SHOWN

**C-12**  
SHEET 12 OF 19



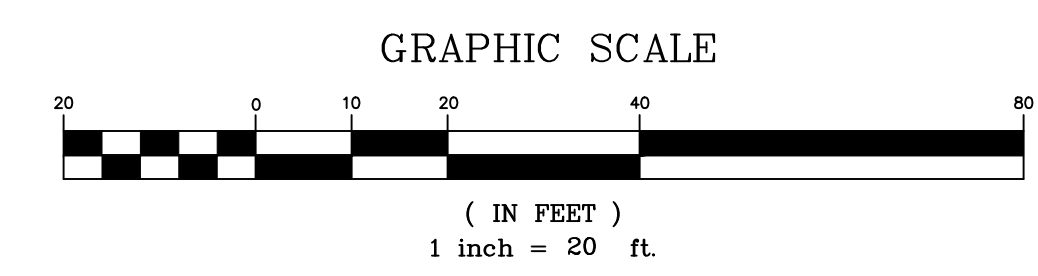
**LIGHTING NOTES:**

1. THE LED LIGHTING THROUGHOUT THE SITE SHOULD BE DIRECTED DOWNWARD ONLY.
2. ALL LIGHT FIXTURES SHALL BE SHIELD TO AVOID ANY SPILLAGE ONTO ADJOINING PROPERTIES.
3. LIGHT FIXTURES LOCATIONS TO BE VERIFIED IN FIELD.
4. CUSTOMER TO VERIFY FINAL MOUNTING, VOLTAGE AND COLOR.

**ILLUMINATION TIMINGS:**

1. THE NUMBER AND LOCATION OF LIGHT FIXTURES IN THE PARKING LOT TO BE TURNED ON AFTER SUNSET TO TAKE INTO ACCOUNT THE LEVEL OF ATTENDANCE AT EVENING SERVICES.
2. OTHER THAN THE MINIMUM EXTERIOR LIGHTING REQUIRED FOR SECURITY, EXTERIOR LIGHTING TO BE TURNED OFF BY (i) 10:30 PM DURING STANDARD TIME OR (ii) 11:00 PM DURING DAYLIGHT SAVINGS TIME, EXCEPT IN THE MONTH OF RAMADAN BEGINS IN JUNE, JULY OR AUGUST, IN WHICH CASE EXTERIOR LIGHTS MAY NEED TO REMAIN ON UNTIL 11:30 P.M.

THIS PLAN TO BE USED FOR LIGHTING PURPOSE ONLY



| Luminaire list (Site 1) |  |  |                                |                              |               |                   |                |          |
|-------------------------|--|--|--------------------------------|------------------------------|---------------|-------------------|----------------|----------|
| Index                   | Manufacturer   | Article name   | Item number                    | Fitting                      | Luminous flux | Light loss factor | Connected load | Quantity |
| 1                       | COOPER LIGHTING SOLUTIONS - LUMIERE (FORMERLY EATON)       | LUMIERE LANTERRA 9004 LED WALL LUMINAIRE, RECESSED LENS, FLOOD OPTIC, BLACK HOUSING.   | 9004-W2-RW-LED3090-F-BK-L3-UNV | 1x (1) 3000K CCT, 90 CRI LED | 4005 lm       | 0.80              | 57.2 W         | 46       |
| 2                       | COOPER LIGHTING SOLUTIONS - MCGRAW-EDISON (FORMERLY EATON) | GALLEON AREA AND ROADWAY LUMINAIRE (LED) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS | GLEON-SA0B-730-U-SL4           | 160x                         | 48946 lm      | 0.80              | 419 W          | 8        |

**TAX LOTS 23, 24, 25 & 28 BLOCK 444.04**  
**212, 214 & 216 ERNSTON ROAD**  
**BOROUGH OF SAYREVILLE**  
**MIDDLESEX COUNTY, NEW JERSEY**  
**LIGHTING PLAN**  
**FIRST FLOOR**

**ADNAN A. KHAN, P.E., C.M.E.**  
 PROFESSIONAL ENGINEER  
*Adnan A. Khan* DATE: 10/25/23  
 N.J. LICENSE NO. 39812 P.A. LICENSE NO. 4965E  
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**JOB NUMBER:** 21-1009  
**SCALE:** AS SHOWN  
**C-13**  
 SHEET 13 OF 19

REVISIONS: 1 PER REVIEW COMMENTS  
 DATE: 02/02/23  
 BY: APZ  
 DATE: 12/20/21  
 DESIGNED BY: AK  
 DATE: 12/20/21  
 APPROVED BY: AK  
 DATE: 12/20/21  
 DRAWN BY: LF

### GENERAL NOTES:

- PARCEL IS KNOWN AS TAX LOTS 23, 24, 25 & 28, IN BLOCK 444.04 AS SHOWN ON THE TAX MAPS OF THE BOROUGH OF SAYREVILLE.
- AREA OF PARCEL = 108,511.50 S.F. OR 2.49 ACRES.
- PARCEL IS LOCATED ENTIRELY IN THE R-7 (RESIDENTIAL) DISTRICT AS SHOWN ON THE ZONING MAP OF THE BOROUGH OF SAYREVILLE
- IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL, AND MAY HAVE BEEN ALTERED.
- THIS IS A SITE DEVELOPMENT PLAN AND NOT A SURVEY. DO NOT SCALE DRAWINGS FOR LOCATIONS OF ADJACENT STRUCTURES AND SURROUNDING PHYSICAL CONDITIONS. THESE ITEMS MAY BE SCHEMATIC ONLY EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
- THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER FROM THOSE SHOWN HEREON.
- ELEVATIONS AND CONTOURS SHOWN ON THIS PLAN ARE BASED ON THE SURVEY PERFORMED AND PROVIDED BY FOUADAIT ARAB, P.L.S., DATED 01/15/23, AND ARE BASED ON NAVD 88 DATUM.
- PROPOSED BUILDING FOOTPRINT AS PER THE ARCHITECTURAL PLANS PREPARED AND PROVIDED BY VISION DESIGN FOR LIFE OF MONMOUTH JC, NJ, DATED 10/11/21 AND UPDATED JANUARY 2023, RECEIVED AS DIGITAL FILE.
- UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY AND COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL UTILITY INFORMATION TO HIS SATISFACTION PRIOR TO COMMENCEMENT OF ANY WORK. THE CONTRACTOR SHALL PERFORM TEST PITS WHERE EXISTING UTILITIES ARE TO BE CROSSED. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS MAY BE REQUIRED TO AVOID CONFLICTS.
- ALL EXISTING UTILITIES THAT ARE TO BE RELOCATED OR ALTERED IN ANY MANNER ARE TO BE DONE IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANIES STANDARDS. ALL THE EXISTING UTILITIES EXPOSED DURING CONSTRUCTION ARE TO BE SUPPORTED UNTIL BACKFILL IS IN PLACE. ANY CROSSING LESS THAN ONE FOOT CLEAR TO BE SUPPORTED WITH A SADDLE (CONCRETE OR SAND) AS NOTED.
- ALL SEWER LINES SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM POTABLE WATER LINES AND/OR AT LEAST 18 INCHES BELOW POTABLE WATER LINES AND IN SEPARATE TRENCHES.
- ALL UTILITIES SHALL BE INSTALLED UNDERGROUND. DESIGN AND INSTALLATION OF WATER, ELECTRIC, GAS, TELEPHONE AND CABLE TO BE PROVIDED BY RESPECTIVE UTILITY COMPANIES.
- WATER AND GAS SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPLIEMENTANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE. UTILITY CONNECTIONS SHALL COMPLY WITH THE COUNTY/MUNICIPAL ROAD OPENING PERMIT REQUIREMENTS.
- THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEAN OUTS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.
- SITE GRADING AND UTILITY WORK ARE TO BE PERFORMED IN A MANNER TO MINIMIZE DAMAGE TO EXISTING VEGETATION AND TREES. ALL AREAS NOT AFFECTED BY CONSTRUCTION ARE TO REMAIN NATURAL AND UNDISTURBED.
- PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- LOCATION OF PROPOSED ROOF DRAINS ARE APPROXIMATE AND SHALL BE COORDINATED WITH THE PROJECT ARCHITECT PRIOR TO CONSTRUCTION. ALL PROPOSED ROOF LEADERS TO BE DISCHARGED AWAY FROM THE FOUNDATION AND ADJACENT PROPERTIES.
- NO ON-SITE SOIL TESTING AND GROUNDWATER ASSESSMENT HAS BEEN PERFORMED ON THIS PROJECT BY THE DESIGN ENGINEER. IT SHALL BE THE OWNERS AND/OR CONTRACTORS RESPONSIBILITY TO CONDUCT SOIL TESTING AND GROUNDWATER ELEVATION DETERMINATION TO CONFIRM APPLICABILITY OF PROPOSED IMPROVEMENTS. CONSTRUCT ABILITY OF THE PROPOSED FINISHED GRADES AND CONSTRUCTION TECHNIQUES WITH RESPECT TO SUBSURFACE SOIL AND GROUNDWATER CONDITIONS.
- COMPACTING IN FILL AREAS BENEATH ALL PROPOSED UTILITIES AND STRUCTURES SHOULD MEET ALL MANUFACTURERS AND MUNICIPAL REQUIREMENTS AND BE EQUAL TO THE MINIMUM 95% MODIFIED PROCTOR DENSITY.
- THIS SET OF PLANS HAS BEEN PREPARED FOR PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND THE DRAWINGS MARKED "ISSUED FOR CONSTRUCTION".
- ALL MATERIAL, WORKMANSHIP AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE PERFORMED IN STRICT CONFORMANCE WITH:
  - NJDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", A CURRENTLY AMENDED.
  - CURRENT PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS,
  - STANDARDS, AND REQUIREMENTS.
  - CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
  - "RESIDENTIAL SITE IMPROVEMENT STANDARDS", N.J. ADMINISTRATIVE CODE TITLE 5, CHAPTER 21, AS CURRENTLY AMENDED.
  - STANDARDS AND/OR CONDITIONS OF ANY OTHER GOVERNING BODIES HAVING JURISDICTION.
- CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE SAFETY CODES. APPLICABLE SAFETY CODES SHALL MEAN THE LATEST EDITION INCLUDING ANY AND ALL AMENDMENTS, REVISIONS AND ADDITIONS THERETO OF THE FEDERAL DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S "OCCUPATIONAL SAFETY AND HEALTH STANDARDS" (OSHA); "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION" OF THE STATE OF NEW JERSEY, DEPARTMENT OF LABOR AND INDUSTRY, BUREAU OF ENGINEERING AND SAFETY; "CONSTRUCTION SAFETY CODE", AND "MAINTENANCE, CONSTRUCTION AND DEMOLITION," AND "BUILDING CODE".
- CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL ALSO BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCING OF CONSTRUCTION OPERATIONS. UNDER NO CIRCUMSTANCES SHOULD THE INFORMATION PROVIDED HERE BE INTERPRETED TO MEAN THAT AWZ ENGINEERING, INC. IS ASSUMING RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY OR THE CONTRACTOR'S ACTIVITIES; SUCH RESPONSIBILITY IS NOT BEING IMPLIED AND SHOULD NOT BE INFERRED.
- THE CLIENT IS RESPONSIBLE FOR OBTAINING ANY APPROVALS FROM THE NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT), IF REQUIRED.
- THE EXISTING BUILDING, DRIVEWAY, AND OTHER STRUCTURES TO BE RAZED AND MATERIALS SHOULD BE REMOVED FROM SITE AND PROPERLY DISPOSED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
- ALL PROPOSED TRAFFIC CONTROL SIGNS AND STRIPING SHALL CONFORM IN FACE DESIGN AND CONSTRUCTION TO THE SPECIFICATIONS FOUND IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), U.S.D.O.T., FEDERAL HIGHWAY ADMINISTRATION, SPECIFICALLY, REGULATORY & WARNING SIGNS SHALL BE FABRICATED OF FLAT ALUMINUM SHEETS AND SHALL BE COVERED WITH DIAMOND GRADE REFLECTIVE SHEETING, SERIES 4000 TYPE XI DESIGNATION PER ASTM.
- ALL PROPOSED HANDICAP PARKING SPACES, RAMPS, AND SIDEWALKS SHALL BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND WITH THE NJ BARRIER FREE REQUIREMENTS.
- STRUCTURAL CALCULATION FOR ANY OVERSIZED DRAINAGE STRUCTURE AND THE OUTLET STRUCTURE SHOULD BE PROVIDED TO THE BOROUGH ENGINEER PRIOR TO CONSTRUCTION.
- IN ACCORDANCE WITH THE BOROUGH ORDINANCE, ALL STORM DRAIN PIPES SHALL BE REINFORCED CONCRETE PIPE CLASS IV.

### CONSTRUCTION NOTES

- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
- THE FILL MATERIAL, PLACEMENT OF FILL, COMPACTION REQUIREMENTS, AND THE COMPACTION TESTING REQUIREMENTS ARE DEFINED IN THE PROJECT SOILS REPORT. IF THERE IS NO PROJECT SOILS REPORT, THE FOLLOWING SHALL BE USED AS A GUIDE FOR PLACEMENT AND COMPACTION OF FILL FOR ALL AREAS TO BE FILLED: ALL AREAS TO BE FILLED SHALL BE "PROOF ROLLED" PRIOR TO BRINGING THE AREA UP TO THE FINISHED GRADES. DURING THE "PROOF ROLLING," THE GEOTECHNICAL ENGINEER OF RECORD WILL DETERMINE SOFT, YIELDING OR UNSUITABLE MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACEMENT WITH SUITABLE MATERIALS. MATERIAL SHALL BE FREE OF FROZEN OR ORGANIC MATERIAL AND STONES LARGER THAN 2 INCHES. UNLESS PRE-APPROVED BY THE GEOTECHNICAL ENGINEER, THE DISTURBED AREAS SHALL BE FILLED TO THE DRAWINGS GRADES. THE BACK FILL MATERIALS SHALL BE PLACED IN NON-COMPACTED LIFTS OF NO MORE THAN 8" THICK, UNLESS PRE-APPROVED BY THE ENGINEER. ALL FILL UNDER THE BUILDING PAD/FOUNDATION AREA, PAVED AREAS, CONCRETE PADS, OR SIDEWALKS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557. A COMPACTION TEST REPORT SHALL BE PREPARED AND SUBMITTED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITHIN THE STATE WHERE THE WORK IS PERFORMED. THE SOILS REPORT SHALL VERIFY THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD/FOUNDATION AREA, PAVED AREAS, CONCRETE PADS, OR SIDEWALKS HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND GUIDELINE RECOMMENDATIONS SET FORTH.
- MOISTURE CONTENT AT THE TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED IN THE STATE OF WORK BEING PERFORMED, CERTIFYING THAT THE SOILS WITHIN THE AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECS.
- SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC., IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
- ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
- CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
- IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND IT SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CORRECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES. COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.
- ALL CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF 4,000 P.S.I. AT 28 DAYS UNLESS SPECIFIED OTHERWISE. ALL CONCRETE AT/ OR WITHIN 6" OF FINISHED GRADE SHALL BE AIR ENTRAINED, CONFORMING TO A.S.T.M. C260.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL INSPECTIONS, TESTING AND LAB ANALYSES. THE CONTRACTOR SHALL ALSO COORDINATE ALL INSPECTIONS, TESTING, AND LAB ANALYSES WITH THE APPROPRIATE LOCAL, STATE, AND/OR FEDERAL AUTHORITY.
- NO DEMOLITION DEBRIS, CUT VEGETATION, CONSTRUCTION DEBRIS OR ANY OTHER WASTE IS TO BE BURIED ON SITE. ALL WASTE, DEBRIS, LITTER, ETC. MUST BE PROPERLY REMOVED AND DISPOSED OFF SITE. PROPER WASTE DISPOSAL DOCUMENTATION SHALL BE SUBMITTED TO THE ENGINEER.
- EXISTING TOPSOIL ON SITE IS TO BE PROTECTED. NO TOPSOIL IS TO BE SOLD OR REMOVED FROM THE SITE OR USED AS SPOIL UNLESS APPLICATION IS MADE TO THE APPLICABLE AGENCY/BOARD AND APPROVAL GRANTED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY ANY ADDITIONAL SOIL EROSION & SEDIMENT CONTROL MEASURES AS REQUESTED BY THE GOVERNING SOIL CONSERVATION DISTRICT.
- TOP SOILING & SEEDING WILL BE PLACED IN THE AREAS DISTURBED DURING CONSTRUCTION AND / OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR LEVELING THE ROADWAY WITH MIX I-5, PRIOR TO THE FINAL SURFACE COURSE. THE ROADWAYS WILL NOT BE LEVELED DURING THE FINAL SURFACE COURSE.
- TRENCHES OR AREAS EXCAVATED ARE TO BE BACK FILLED WITH SUITABLE MATERIAL AND TOPPED WITH QUARRY PROCESS STONE AT THE END OF EACH WORKING DAY AND PAVED AT THE END OF THE WORK WEEK. TRENCHES LEFT OPEN OVERNIGHT MUST BE BARRICADED WITH ADEQUATE LIGHTING.
- ANY MATERIAL THAT MAY BE DISTURBED DURING THE REMOVAL AND REPLACEMENT TO EXISTING CURBING AND SIDEWALKS, MUST BE RETURNED TO ITS ORIGINAL CONDITION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAPERING PROPOSED WORK TO MEET EXISTING CONDITIONS IN A UNIFORM MANNER.
- SITE CONTRACTOR TO VERIFY SITE SURVEY FOR LOCATION OF WALL.
- ON-SITE CONTRACTOR TO CHECK THE SURVEY BOUNDARY LINE FOR LOCATING WALLS.
- ALL EXISTING IMPROVEMENTS (INCLUDING BUT NOT LIMITED TO CURB, PAVEMENT, SIDEWALK) SHALL BE INSPECTED PRIOR TO THE START OF CONSTRUCTION BY THE BOROUGH ENGINEER AND APPLICANT. ANY EXISTING IMPROVEMENT SHALL BE REPAIRED OR REMOVED/REPLACED AS DIRECTED BY THE BOROUGH ENGINEER.

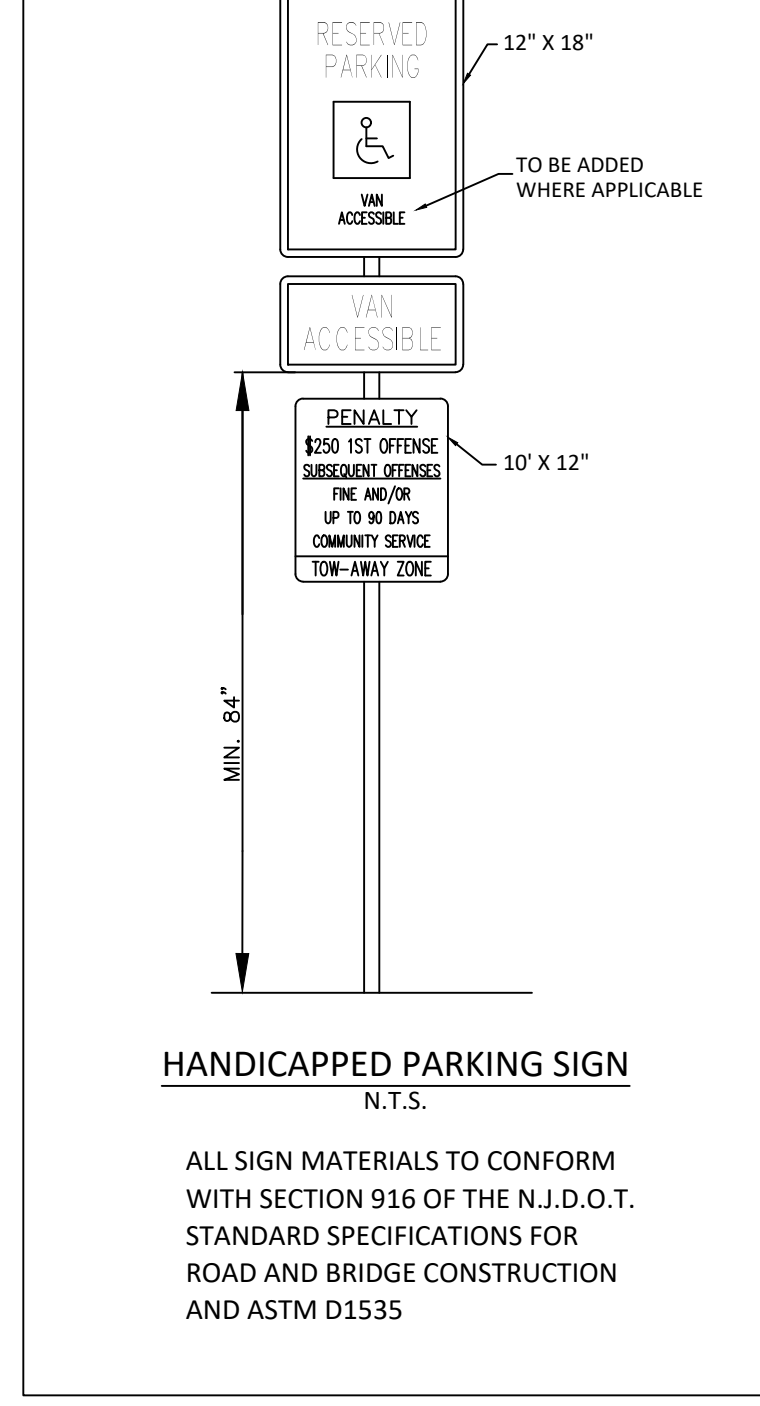
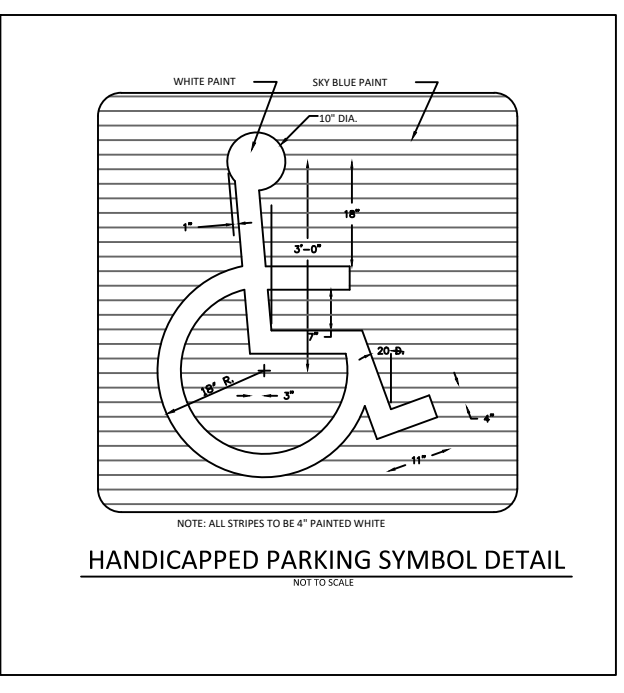
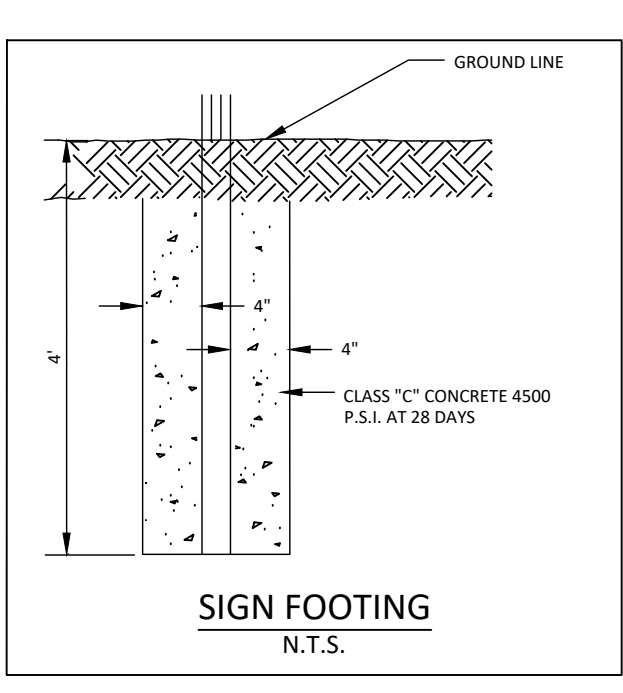
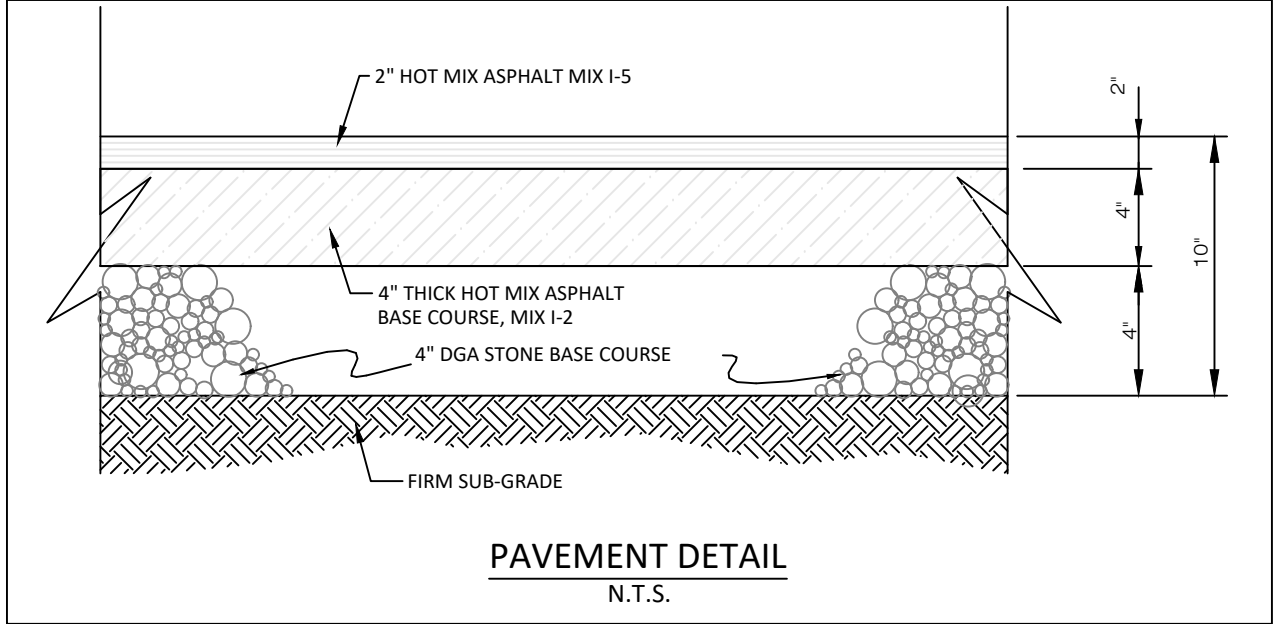
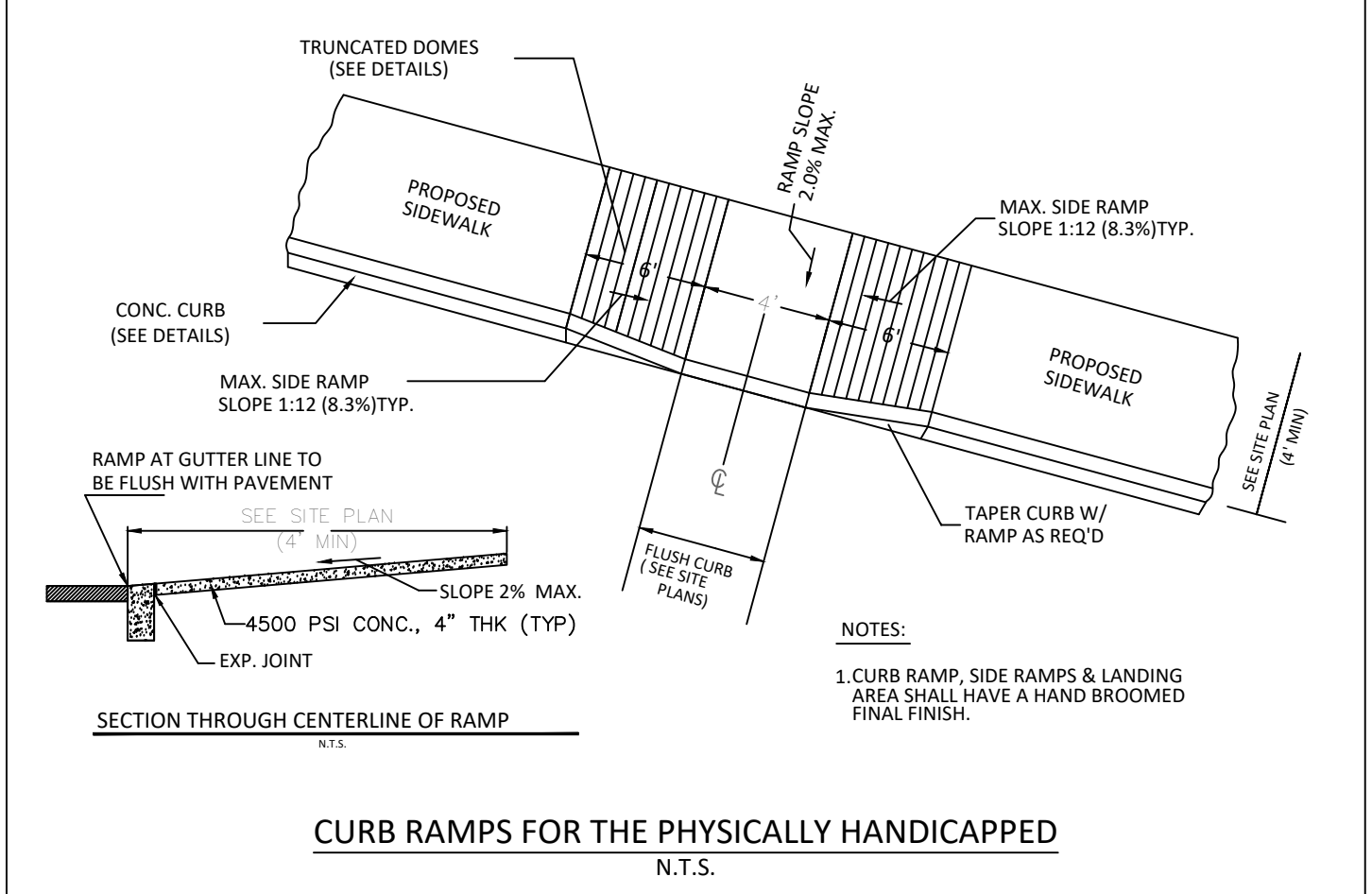
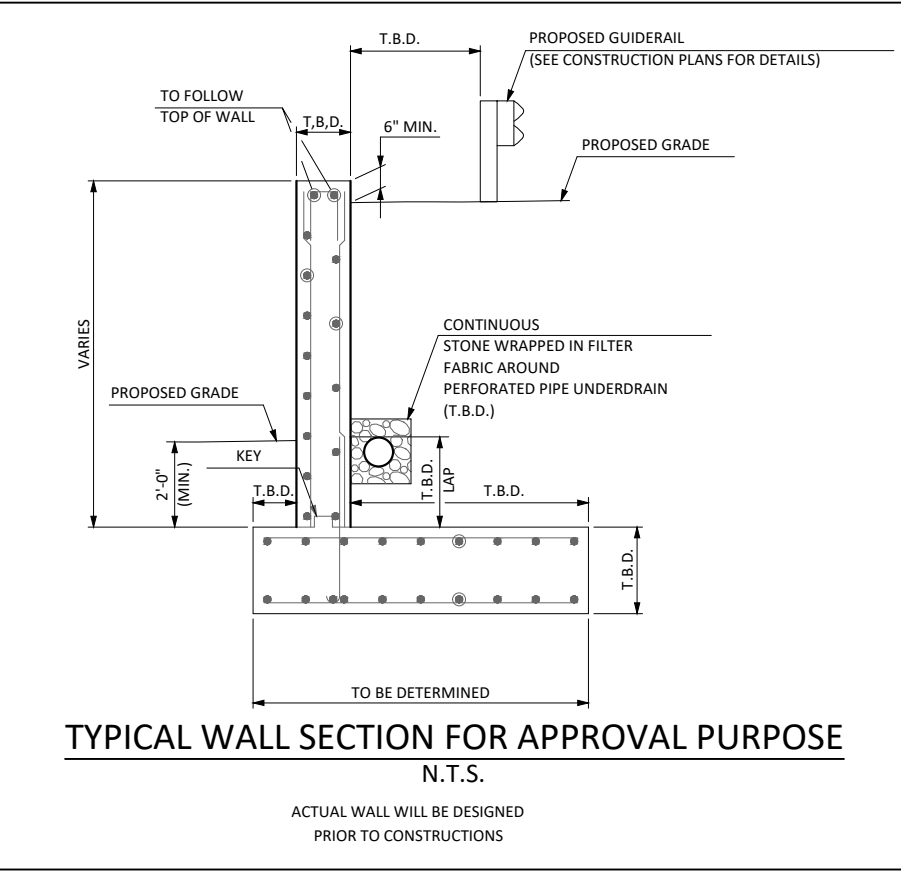
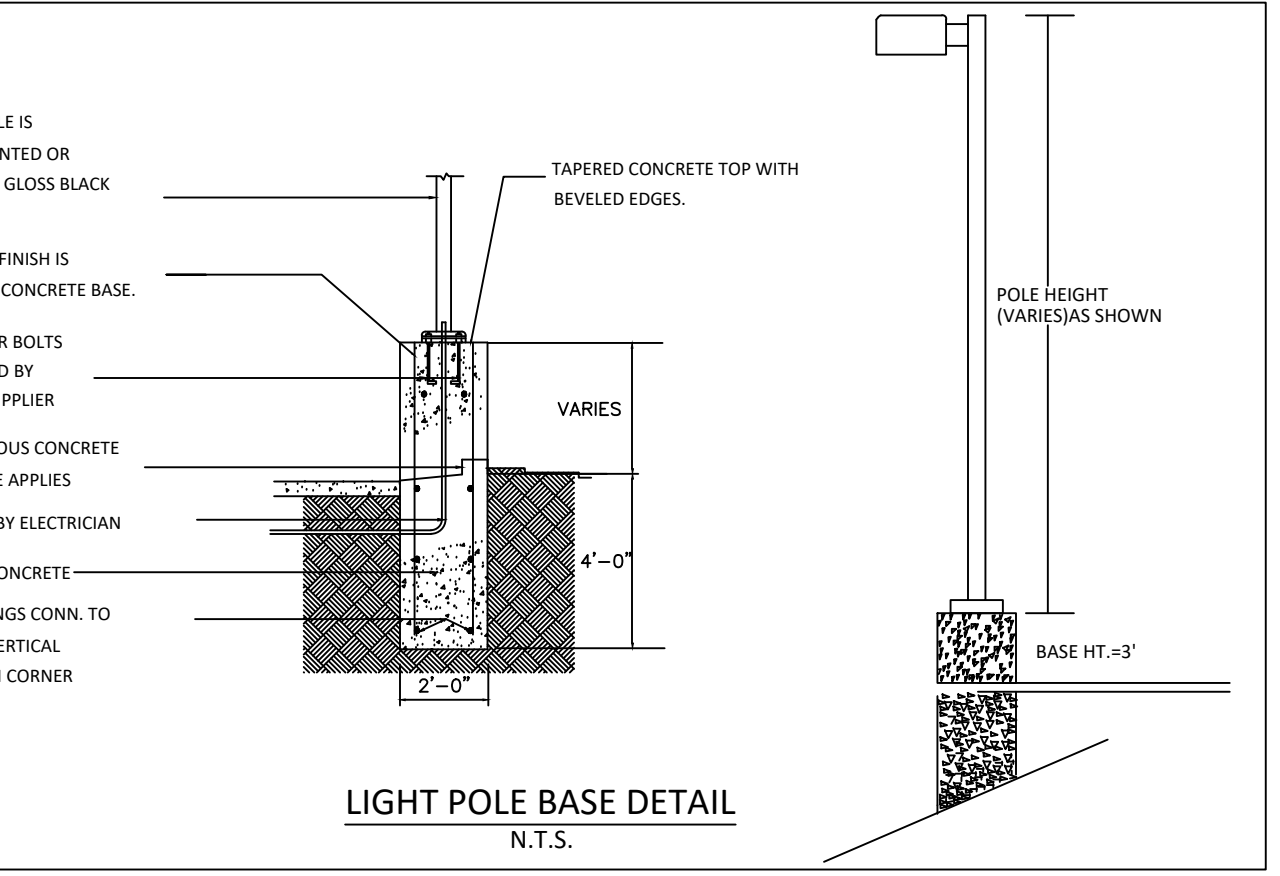
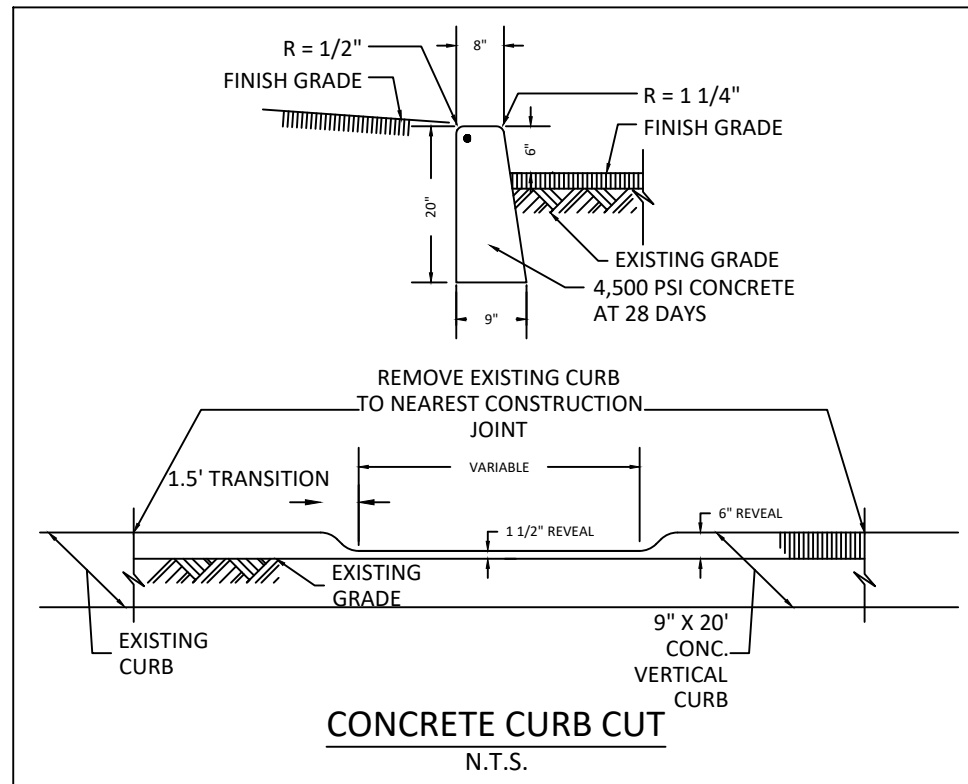
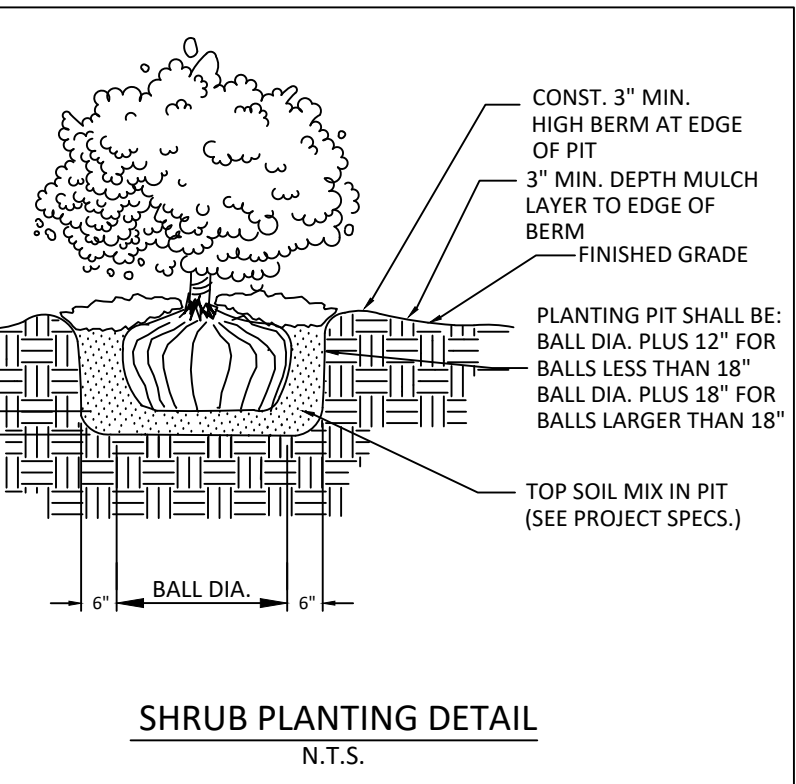
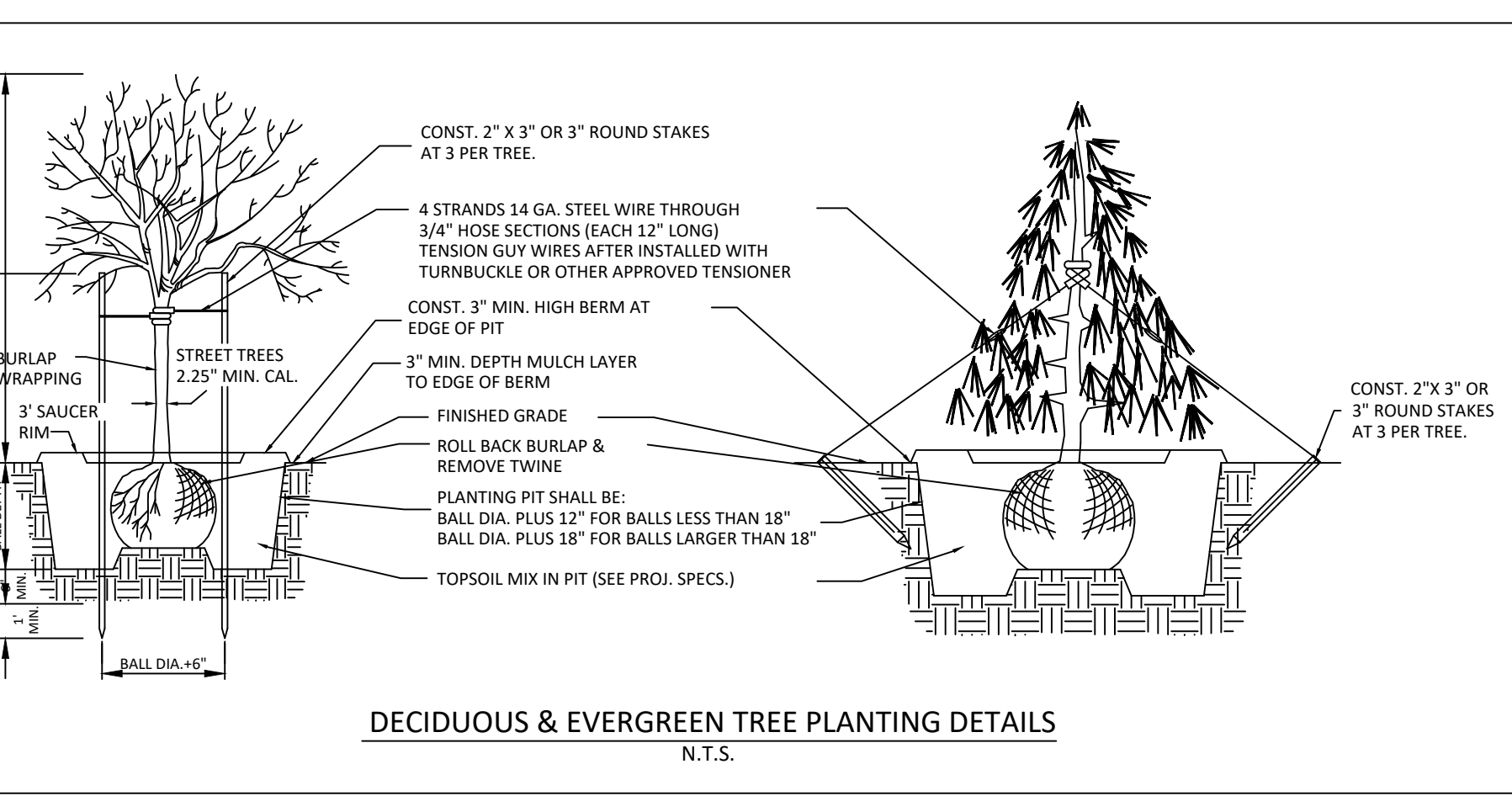
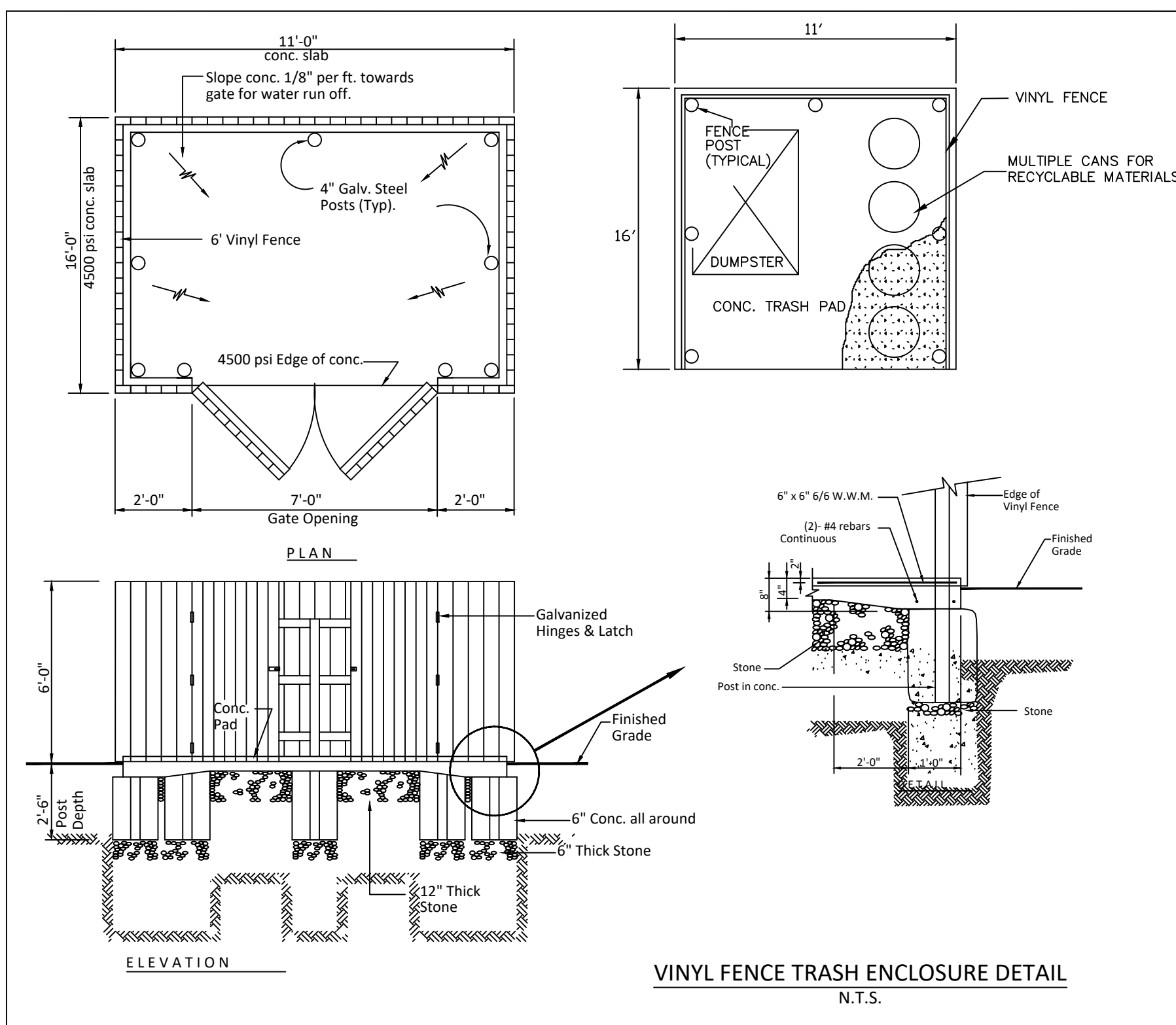
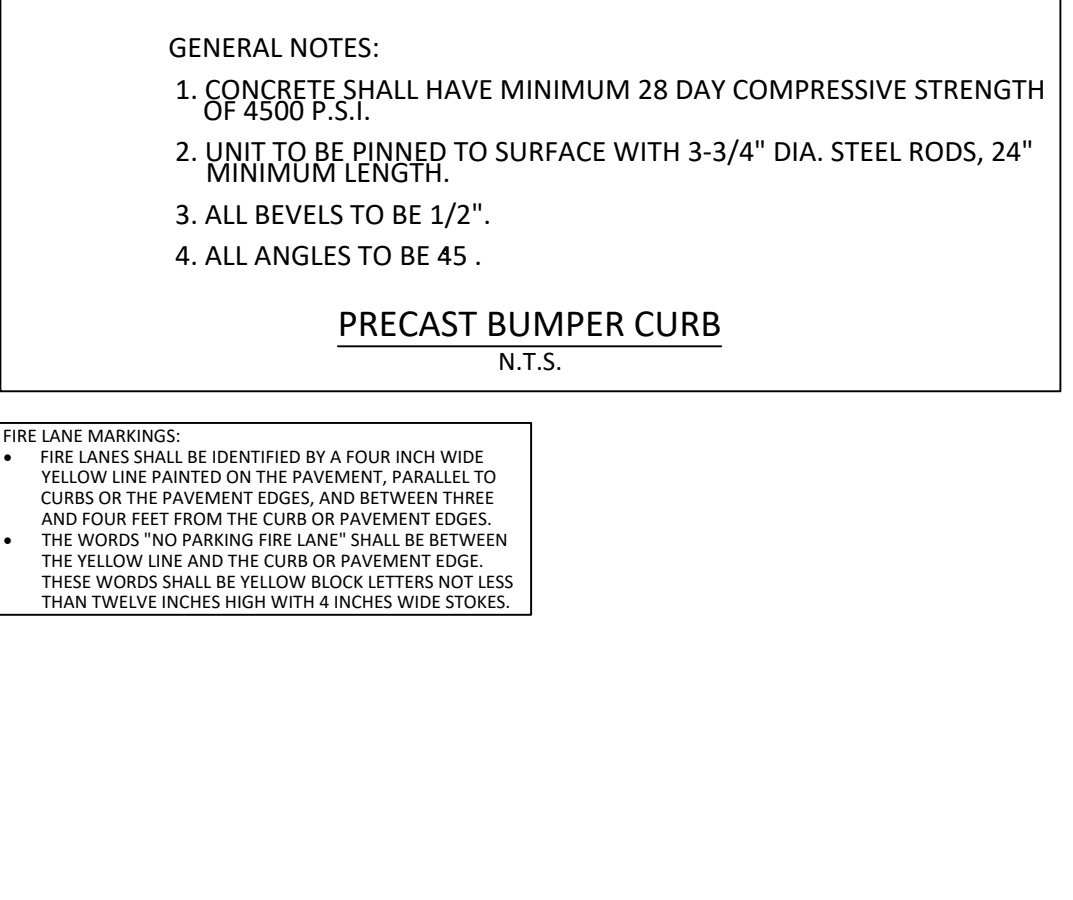
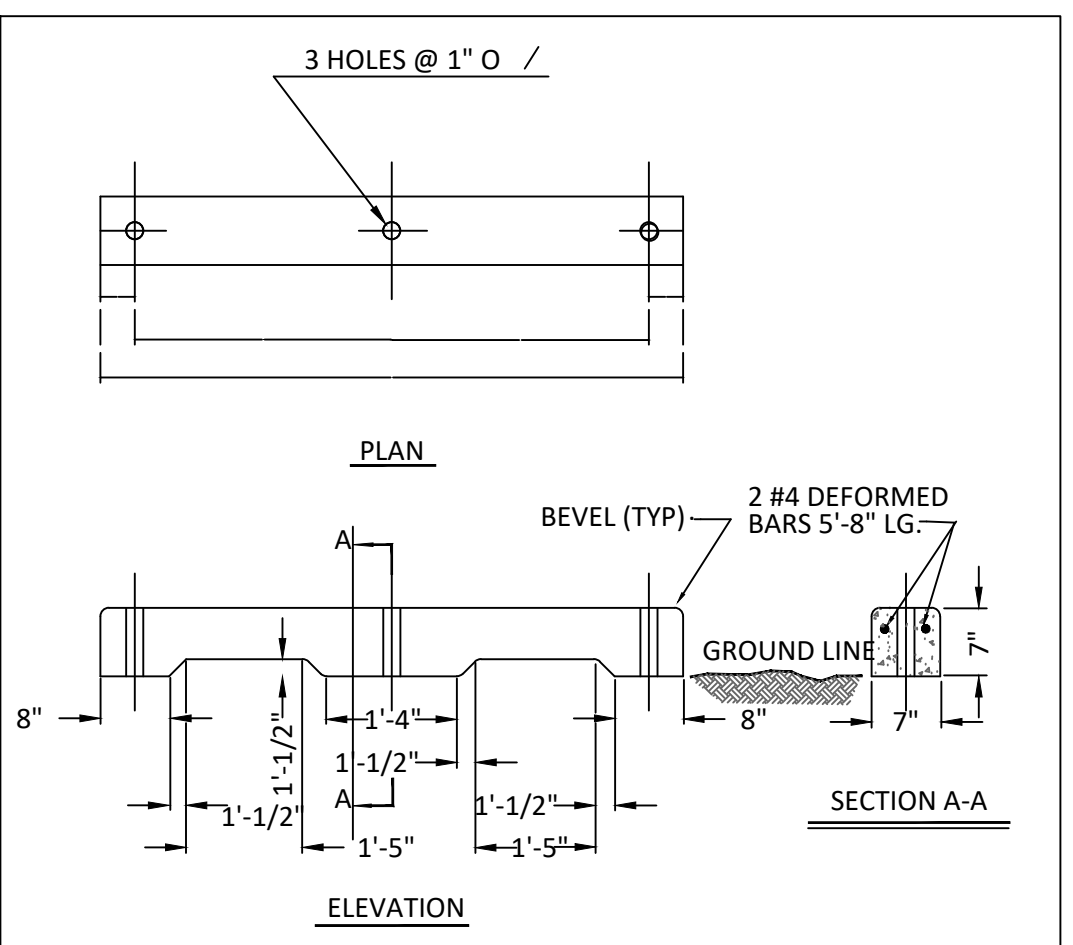
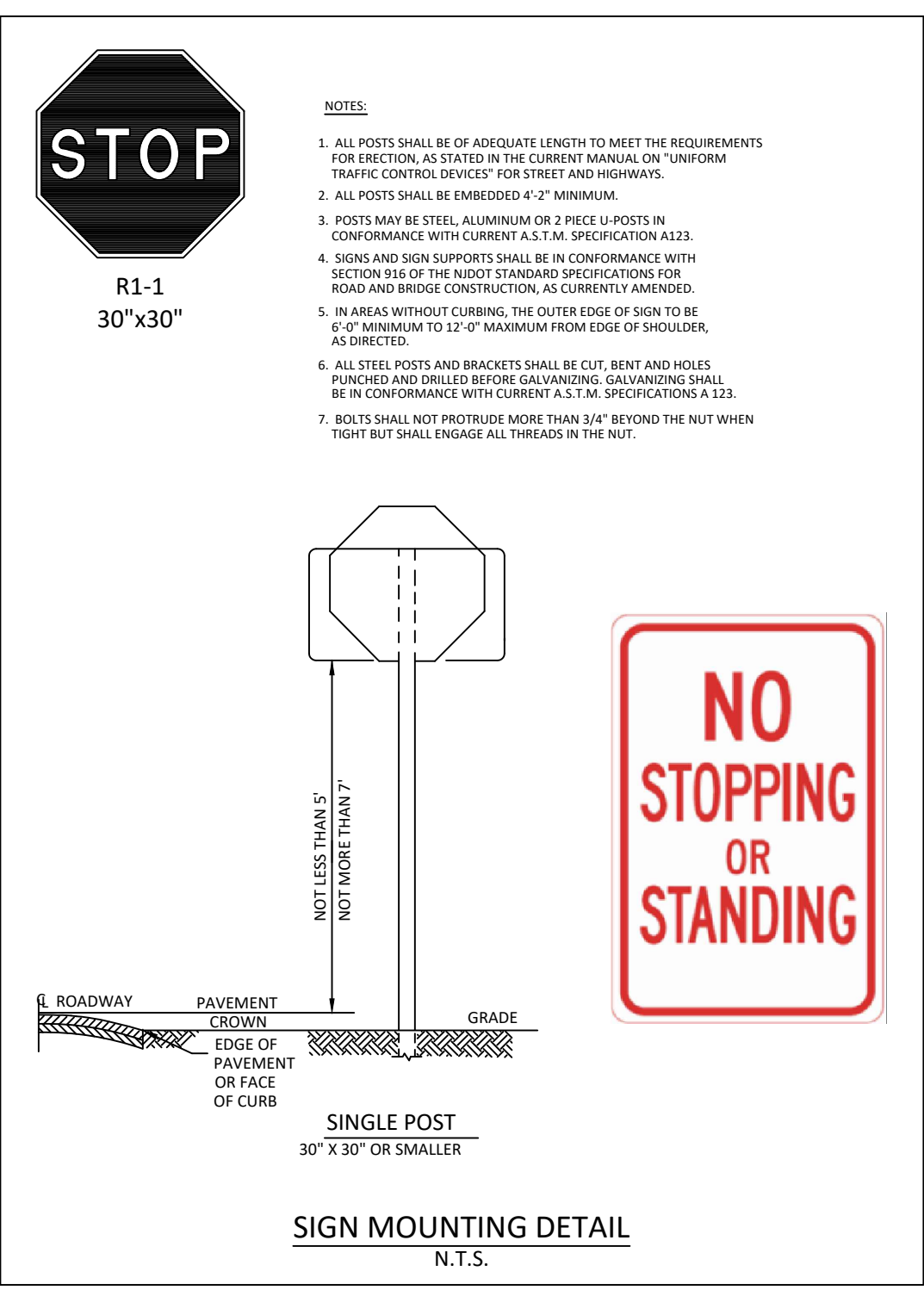
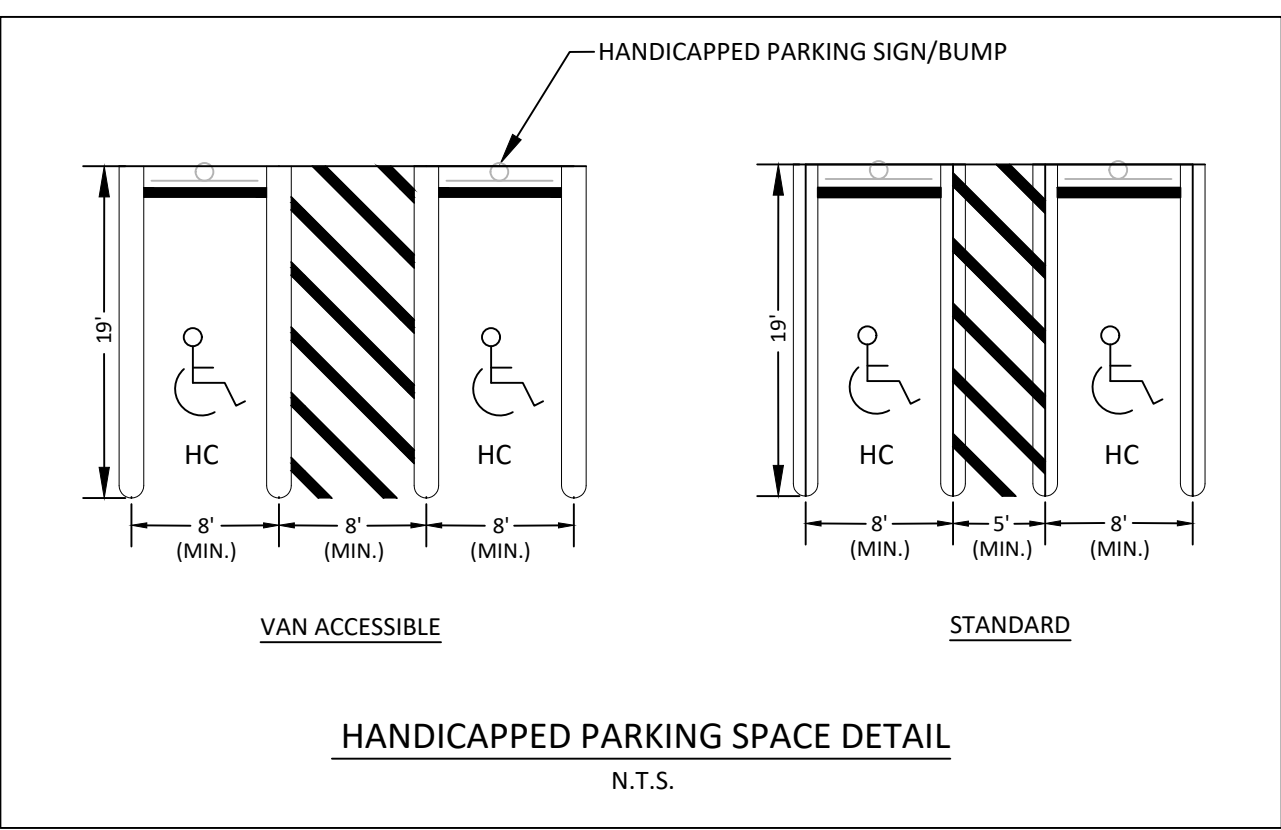
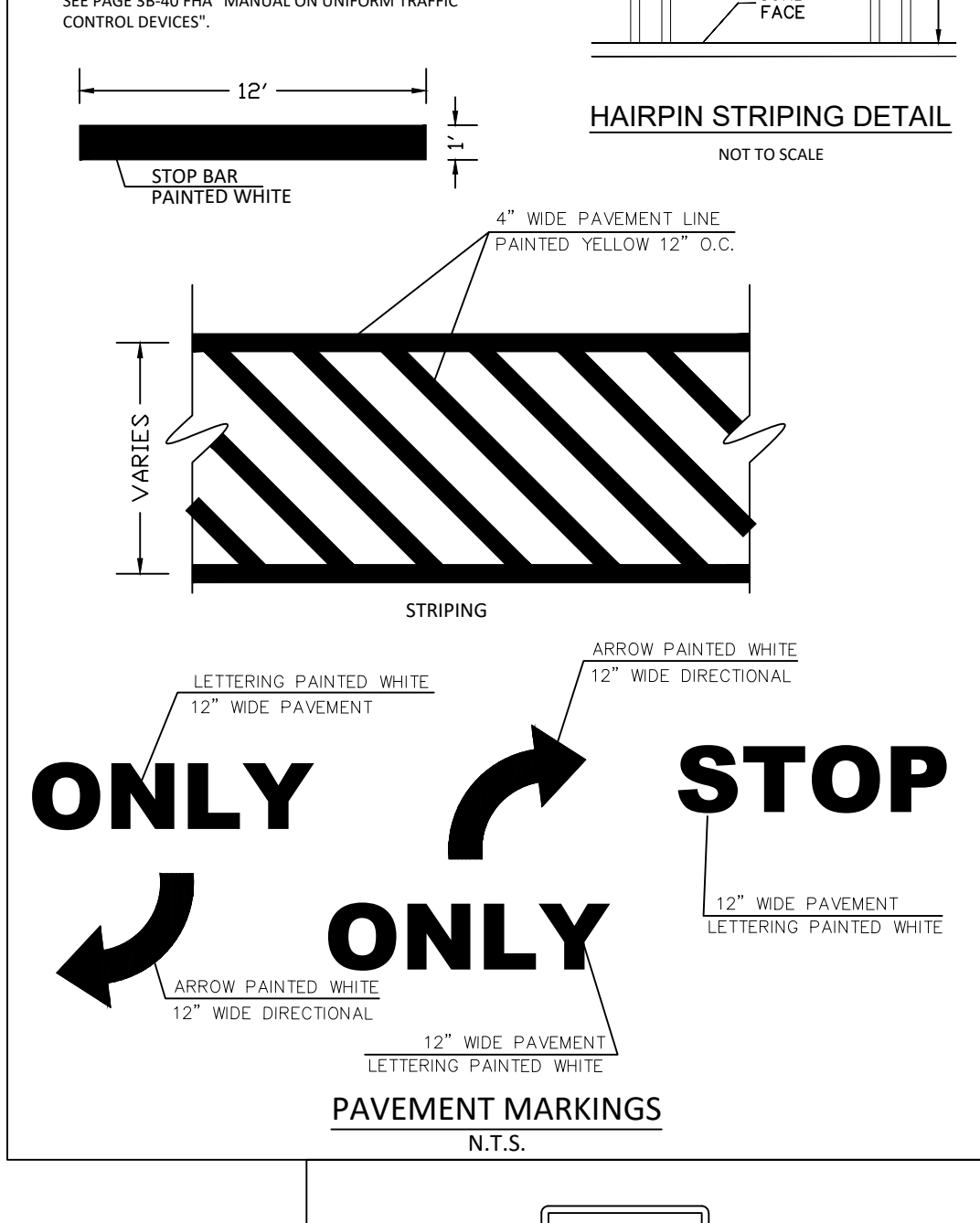
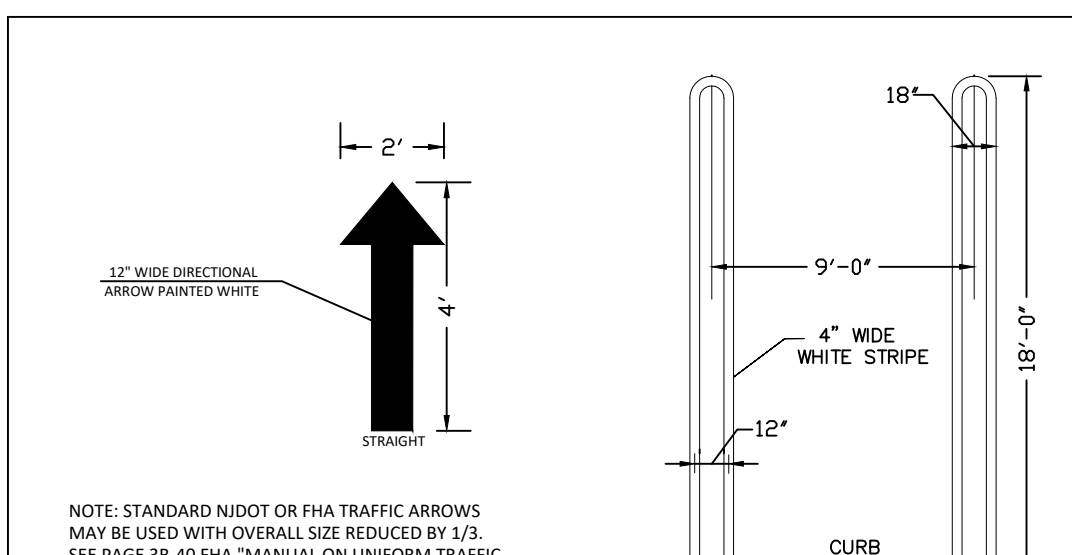
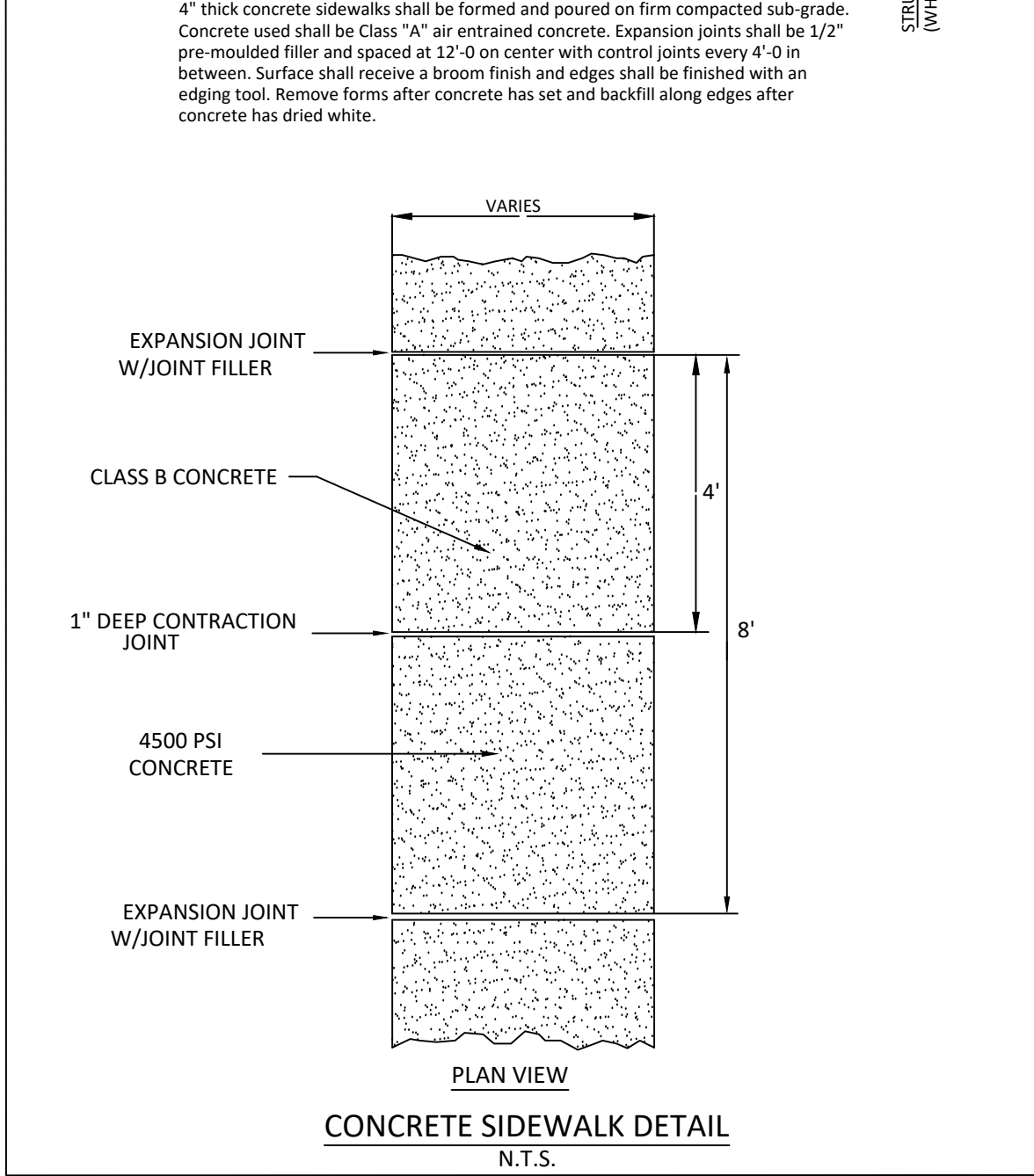
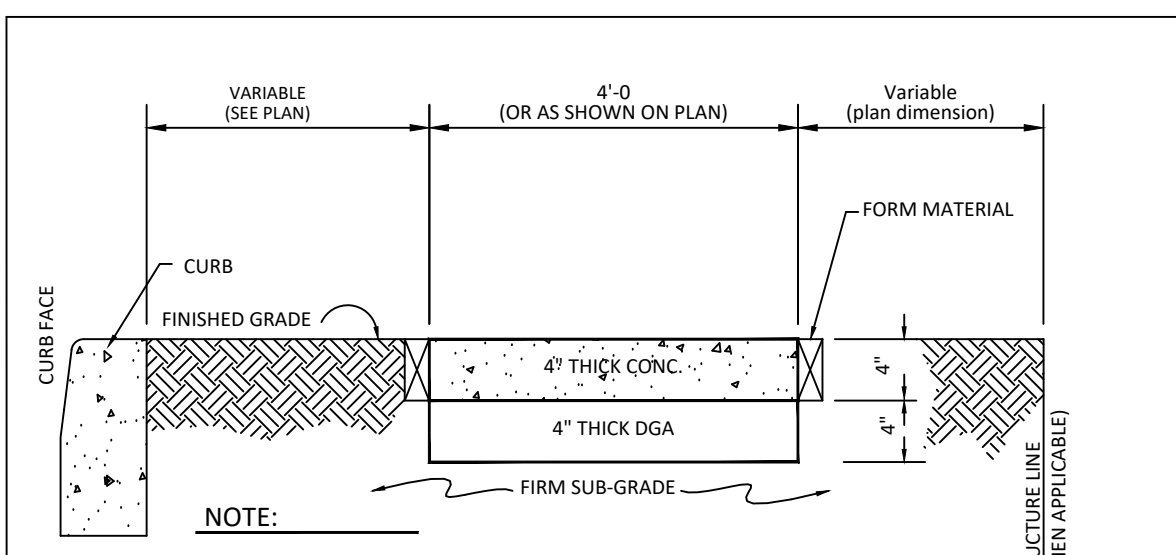
### GRADING NOTES

- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH HEREIN.
- COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS. PRIOR TO PLACEMENT OF FILL MATERIALS, UNDERTAKE ALL NECESSARY ACTION IN ORDER TO INSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH AND DEBRIS. THE MATERIAL FROM DEMOLITION SHALL NOT BE USED AS FILL MATERIAL.
- CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR MUST ENSURE 0.75% SLOPE AGAINST ALL ISLANDS GUTTERS, CURBS AND 1.0% ON ALL CONCRETE SURFACES, AND 1-1 1/2% MIN. ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY EFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING. IMMEDIATELY, PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SOLELY AT THE CONTRACTOR'S OWN RISK.
- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MIN. OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
- SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIAL. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD) .
- IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERSEDE IN ALL CASES. NOTIFY ENGINEER OF RECORD OF ANY CONFLICT.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF FINISHED GRADES AT THE BUILDING EXTERIOR WITH THE ARCHITECT. ANY DISCREPANCIES WITH THE GRADING PLAN SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING PRIOR TO PLACEMENT OF FILL.
- ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES.
- SITE GRADING AND UTILITY WORK ARE TO BE PERFORMED IN A MANNER TO MINIMIZE DAMAGE TO EXISTING VEGETATION AND TREES. ALL AREAS NOT AFFECTED BY CONSTRUCTION ARE TO REMAIN NATURAL AND UNDISTURBED.

### UTILITY NOTES:

- LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ALL UTILITIES AND SERVICES INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE SHALL BE VERTICALLY AND HORIZONTALLY LOCATED. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
- ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
- ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE REQUIREMENTS PROVIDED BY THE APPLICABLE UTILITY COMPANY.
- PROPER CONSTRUCTION OF THE PROPOSED DETENTION BASINS SHALL BE CERTIFIED BY THE APPLICANT'S ENGINEER PRIOR TO FINAL APPROVAL BY THE TOWNSHIP.
- THE APPLICANT SHALL BE RESPONSIBLE FOR ALL SERVICE LINES ON THIS PROPERTY.
- THE WATER SERVICE LINES TO THE BUILDINGS SHALL BE MADE OF COPPER.
- IF THE WATER CURB-BOX VALVE IS IN THE GRASS, THEN A STREET VALVE RISER AND COVER SHALL BE INSTALLED WITH 12-INCH CONCRETE SQUARE PAD AROUND IT FOR MOWER PROTECTION.
- ALL SERVICE LINE TAPS SHALL USE A STAINLESS STEEL TAPPING SLEEVE.
- ALL DISTRIBUTION MATERIALS SHALL MEET THE TOWNSHIP SPECS.
- IF EXCAVATING IS TO BE DONE ON DUNHAM'S CORNER ROAD TO TIE INTO UNDERGROUND UTILITIES OR INSTALLING CURBING, A ROAD-OPENING PERMIT WILL BE REQUIRED.
- ALL WATER FITTINGS, NUTS AND BOLTS ARE TO BE STAINLESS STEEL.
- TO THE MAXIMUM EXTENT FEASIBLE, ALL STORMWATER CONTROL MEASURES SHALL BE CONSTRUCTED PRIOR TO BEGINNING OTHER LAND DISTURBANCE ACTIVITIES.

|  |          |             |          |   |          |
|--|----------|-------------|----------|---|----------|
| ADNAN A. KHAN, P.E., C.M.E.<br>PROFESSIONAL ENGINEER   |          |             |          | AWZ ENGINEERING, INC.<br>ENGINEERS • SCIENTISTS • CONSULTANTS<br>Main Office: 150 River Road, Suite B3, Montville, NJ 07045<br>Pennsylvania Office: Scranton, PA 18504<br>Tel: 973-588-7080 Fax: 973-588-7079<br>www.awzengineering.com e-mail: info@awzengineering.com<br>New Jersey Certificate of Authorization No.: 24GA28116400<br>Pennsylvania Certificate of Authority No.: 37711354 |          |
| DRAWN BY   | DATE     | DESIGNED BY | DATE     | APPROVED BY   | DATE     |
| LF   | 12/20/21 | AK          | 12/20/21 | AK  | 12/20/21 |
| TAX LOTS 23, 24, 25 & 28    BLOCK 444.04<br>212, 214 & 216 ERNSTON ROAD<br>BOROUGH OF SAYREVILLE<br>MIDDLESEX COUNTY, NEW JERSEY<br>GENERAL CONSTRUCTION NOTES |          |             |          | JOB NUMBER:<br>21-1009<br>SCALE: AS SHOWN<br>C-14<br>SHEET 14 OF 19   |          |



**TAX LOTS 23, 24, 25 & 28 BLOCK 444.04**  
**212, 214 & 216 ERNSTON ROAD**  
**BOROUGH OF SAYREVILLE**  
**MIDDLESEX COUNTY, NEW JERSEY**

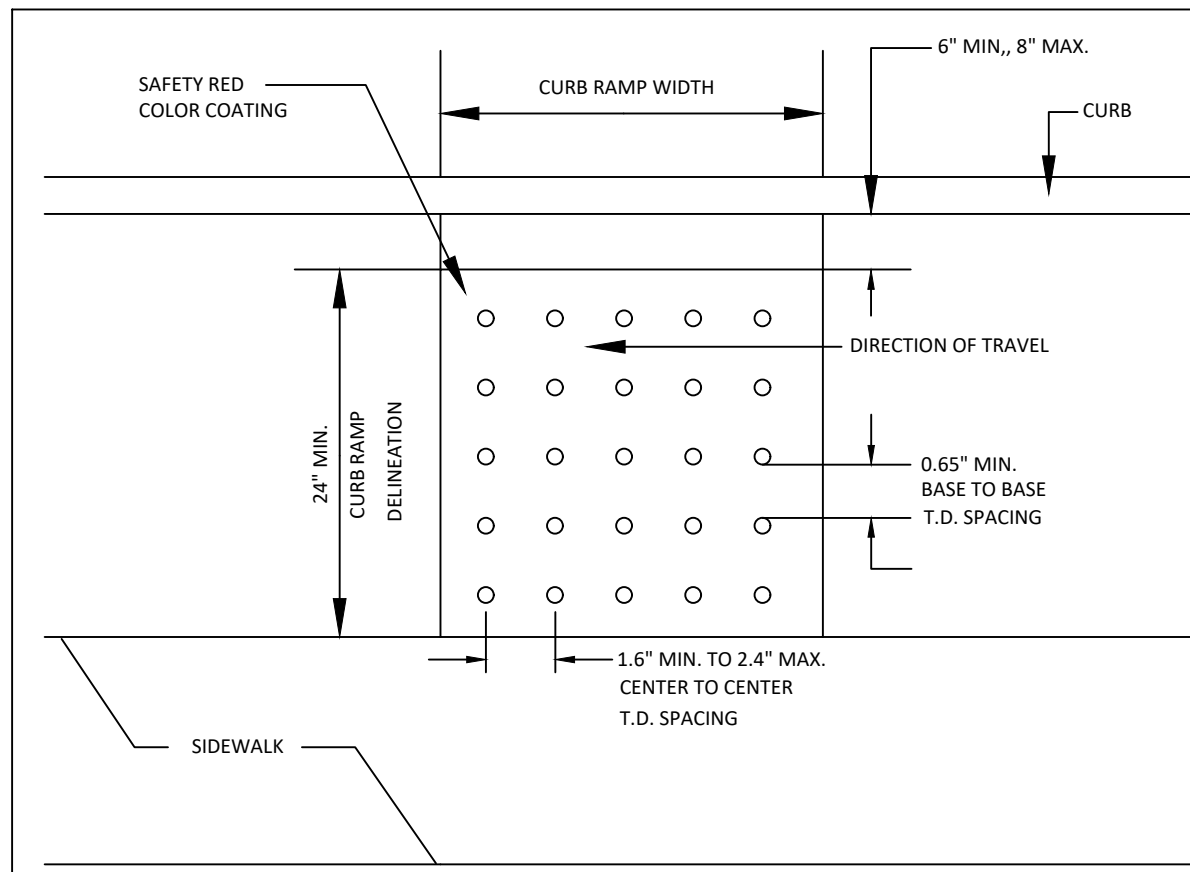
**CONSTRUCTION DETAILS**

**JOB NUMBER: 21-1009**  
**SCALE: AS SHOWN**

**C-15**  
**SHEET 15 OF 19**

**AWZ ENGINEERING, INC.**  
**ENGINEERS • SCIENTISTS • CONSULTANTS**  
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 Pennsylvania Office: Scranton, PA 18504  
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 www.awzengineering.com e-mail: info@awzengineering.com  
 New Jersey Certificate of Authorization No.: 24GA28118400  
 Pennsylvania Certificate of Authority No.: 3771354

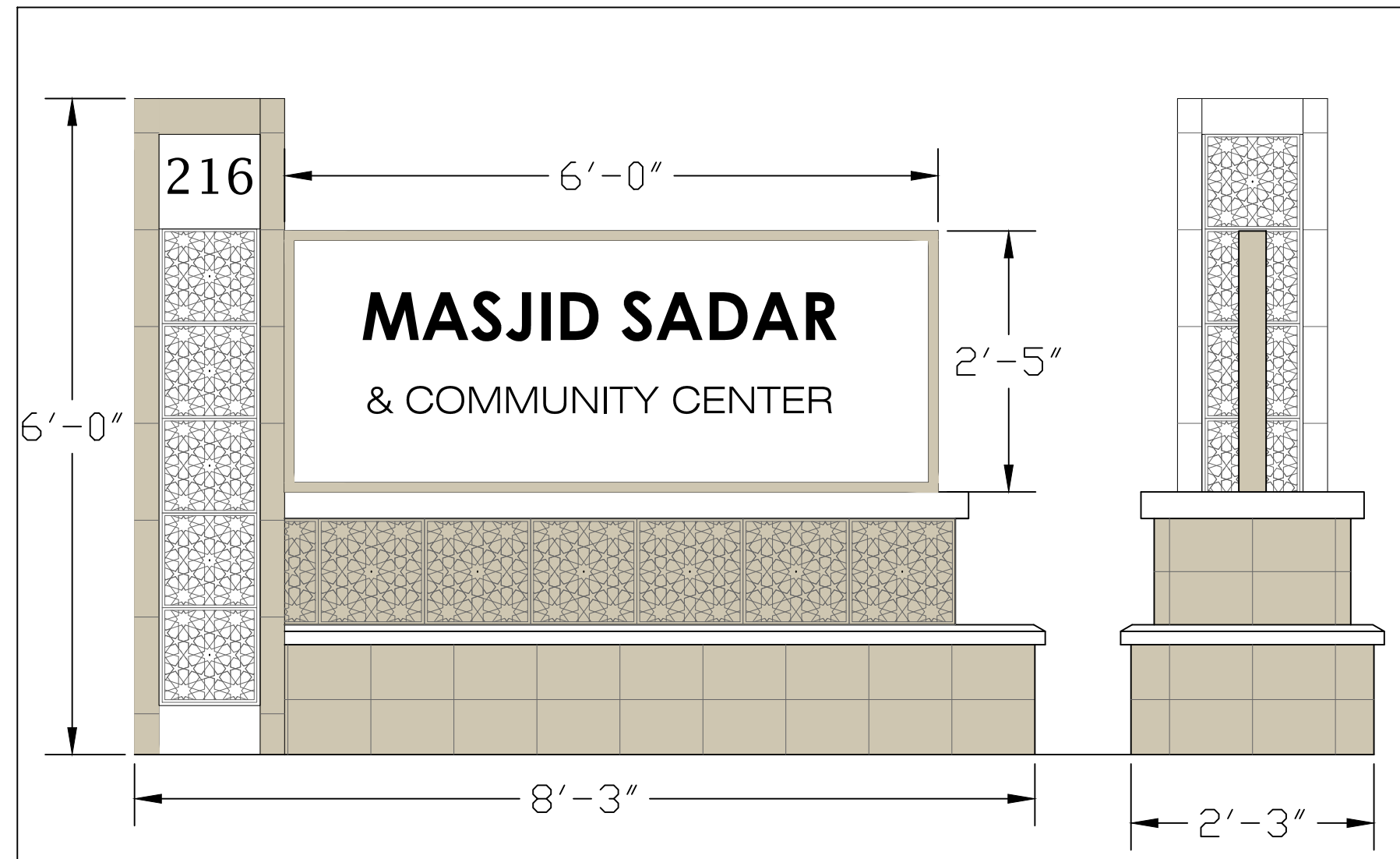
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|-------------------|-----------------------------|
| DRAWN BY          | ADNAN A. KHAN, P.E., C.M.E. |
| DATE:             | 12/20/21                    |
| DESIGNED BY       | ADNAN A. KHAN, P.E., C.M.E. |
| DATE:             | 12/20/21                    |
| APPROVED BY       | ADNAN A. KHAN, P.E., C.M.E. |
| DATE:             | 12/20/21                    |
| PER COUNTY REVIEW | 1                           |
| NO.               | 102523                      |
| REVISIONS         | DATE: BY: APE               |
| DATE:             | 10/25/23                    |
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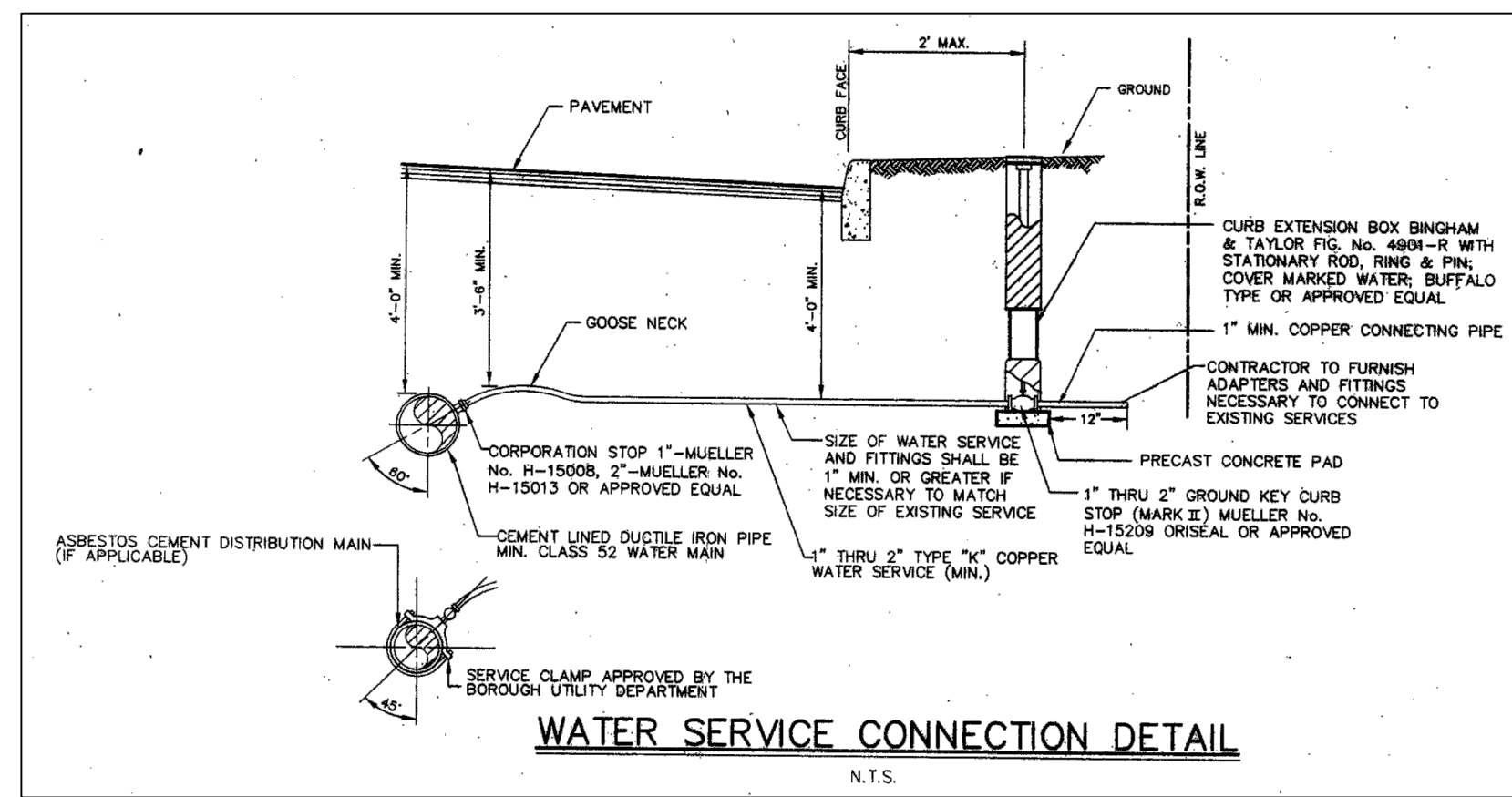
**DETECTABLE WARNING SURFACE AT SIDEWALK RAMP DETAIL**

**DETECTABLE WARNING SURFACE APPLICATION INSTRUCTIONS**

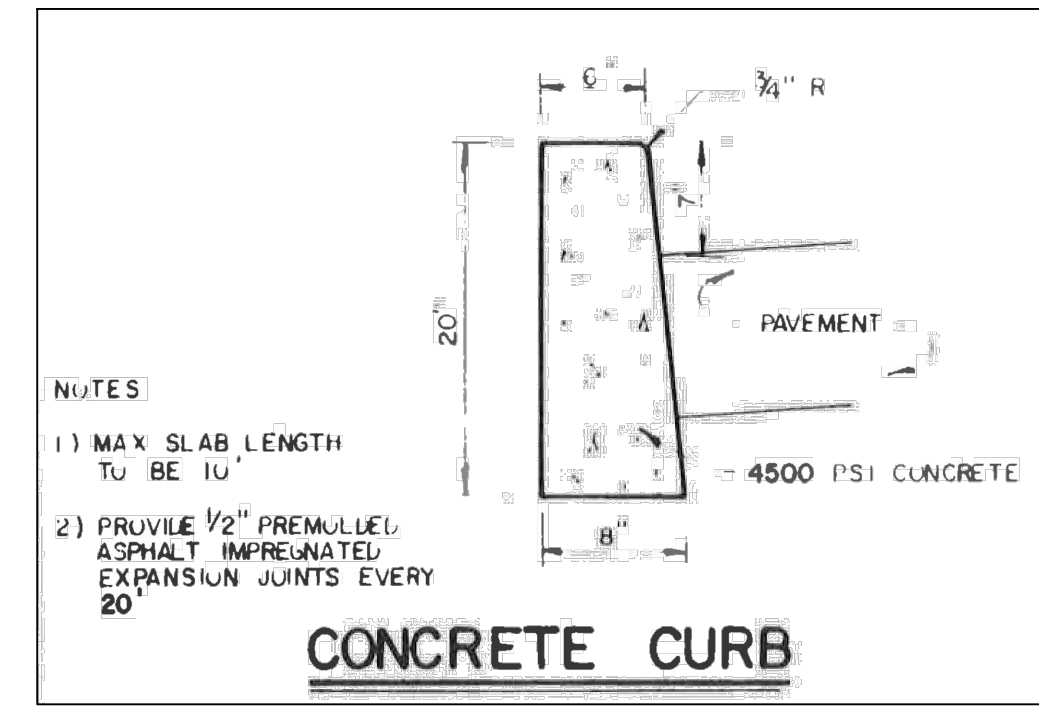
- CLEAN MAT(S) WITH RUBBING ALCOHOL AND LET DRY. LAY MAT(S) FLAT, AWAY FROM THE ACTUAL FINAL PLACEMENT. (IF NECESSARY, BEND THEM SLIGHTLY TO MAKE THEM LIE FLAT.)
- CLEAN THE SURFACE USING A PRESSURE WASH OF AT LEAST 2,500 PSI. IF THERE IS GUM OR OTHER CONTAMINANTS ON THE SURFACE, CLEAN WITH A WIRE BRUSH. ALTERNATIVELY, NEW CONCRETE WILL REQUIRE ONLY A CITRIC CLEANER APPLICATION. AGITATE WITH A DECK BRUSH, RINSE OFF THOROUGHLY AND DRY THOROUGHLY.
- PLACE MAT(S) ONTO THE APPLICATION SURFACE.
- MASK OFF AREA AROUND THE MAT(S) WITH A GOOD-QUALITY DUCT TAPE (THE DUCT TAPE BONDS BETTER TO THE CONCRETE THAN REGULAR MASKING TAPE.)
- REMOVE THE MAT(S) FROM THE WORKING AREA, REMEMBERING THE EXACT POSITION THEY WERE IN.
- PLACE THE ADHESIVE IN THE CAULK GUN. CUT OFF 1/2" TO 1" OF THE PLASTIC TIP AND PIERCE THE INNER SEAL OF THE CAULK TUBE.
- SQUEEZE OUT A LARGE BEAD OF ADHESIVE ON THE HALF OF THE SURFACE.
- USING A SERRATED TROWEL, SPREAD THE ADHESIVE TO COVER THE ENTIRE MASKED-OFF SURFACE (PAYING PARTICULAR ATTENTION TO MAKING SURE THAT THE PERIMETER OF THE AREA IS COVERED RIGHT UP TO THE DUCT-TAPPED EDGES). A 1-1/4" TUBE COVERS 4 SQUARE FEET.
- CAREFULLY PLACE THE MAT(S) BACK IN THEIR ORIGINAL POSITION ON THE SURFACE. MAKING SURE THAT THEY ARE NOT OVERLAPPING THE DUCT TAPE.
- LAY A SMALL, FLAT BOARD (1 SQUARE FOOT OR SMALLER) ON THE TOP OF THE DOMES AND PRESS DOWN FIRMLY. MOVE THE BOARD AROUND, MAKING SURE THAT ALL AREAS OF EACH MAT HAVE BEEN PRESSED DOWN. USE THE END OF THE BOARD OR ANOTHER BOARD TO PRESS DOWN ALL AREAS IN BETWEEN THE DOMES. WORK FROM THE CENTER OUT AND PAY PARTICULAR ATTENTION TO PRESSING DOWN ALL AREAS AROUND THE OUTSIDE PERIMETER.
- REMOVE ANY EXCESS ADHESIVE WITH A RAG WET WITH XYLENE. IF NEEDED, DURABAK CAN LATER BE USED FOR TOUCH-UP WITH A SMALL BRUSH.
- LET ADHESIVE DRY FOR AT LEAST 6 HOURS BEFORE ALLOWING FOOT TRAFFIC.



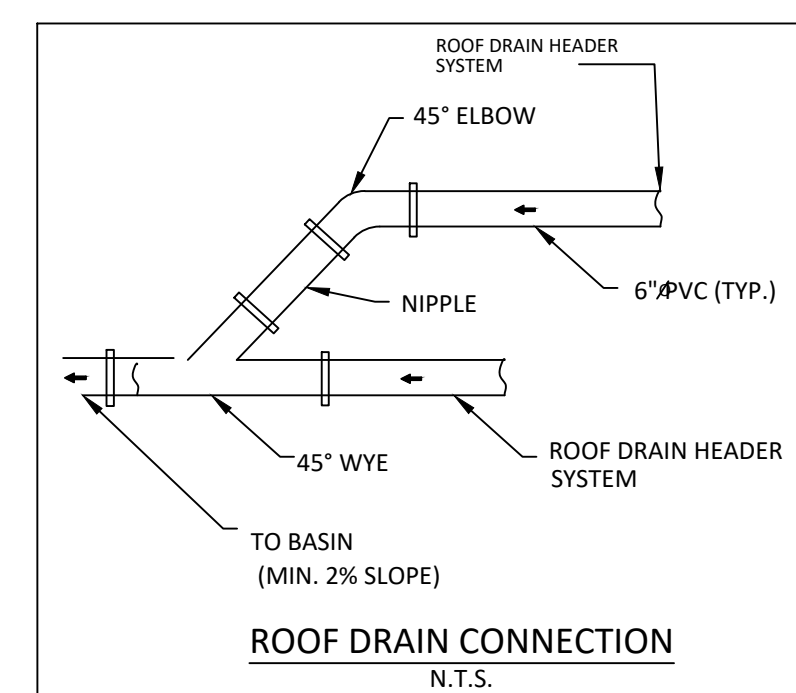
**MONUMENT SIGN DETAIL**  
N.T.S.



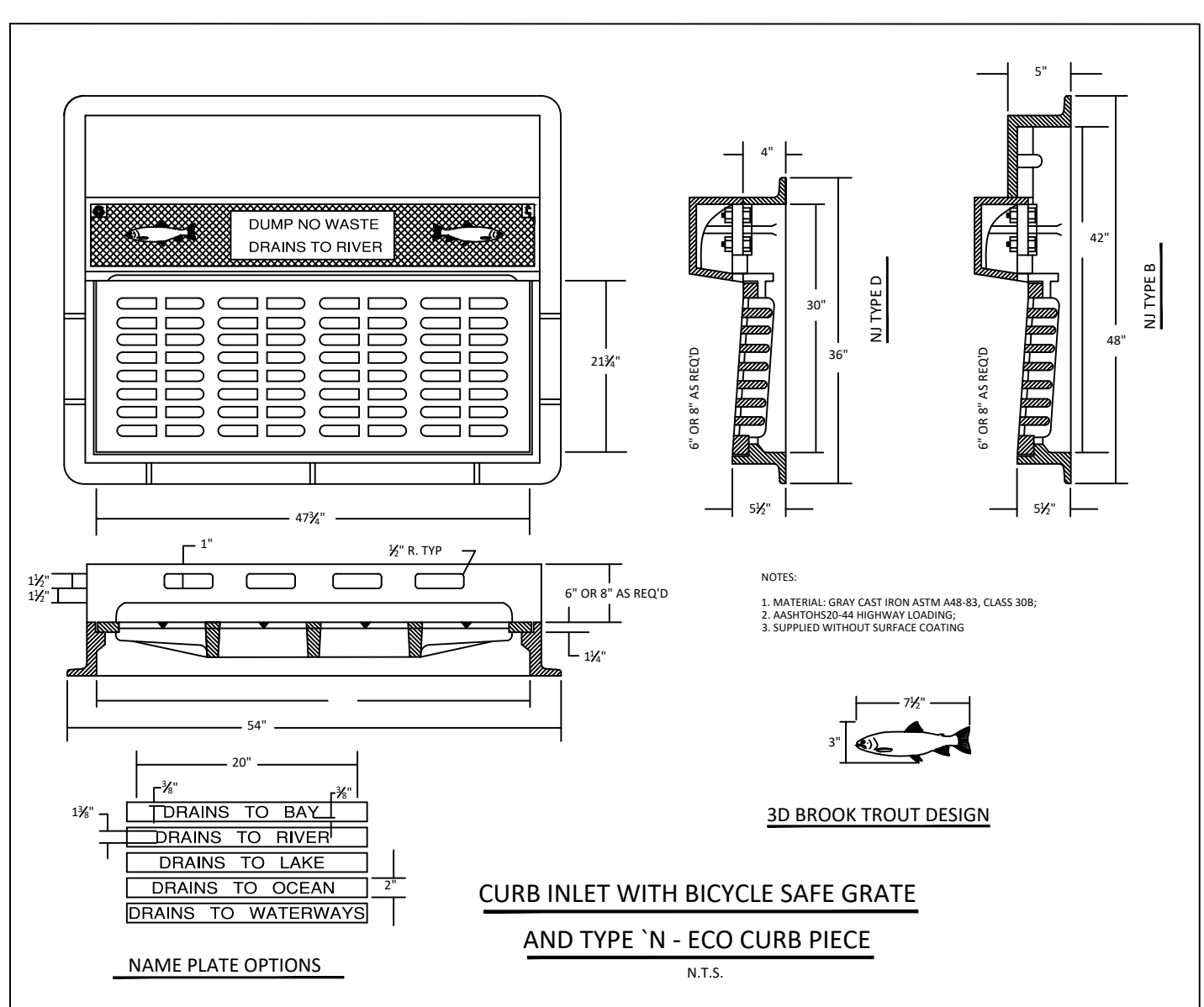
**WATER SERVICE CONNECTION DETAIL**  
N.T.S.



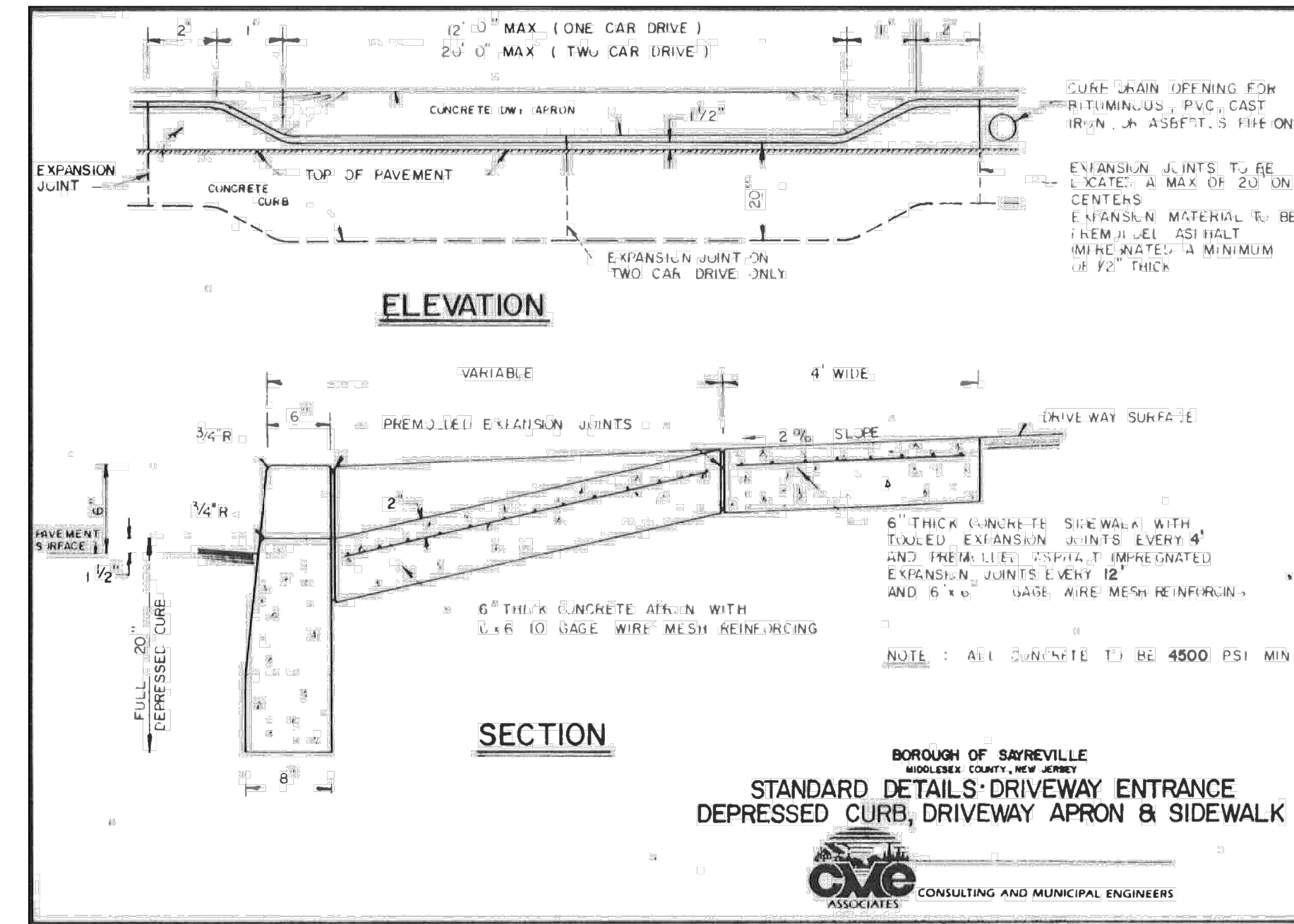
**CONCRETE CURB**  
N.T.S.



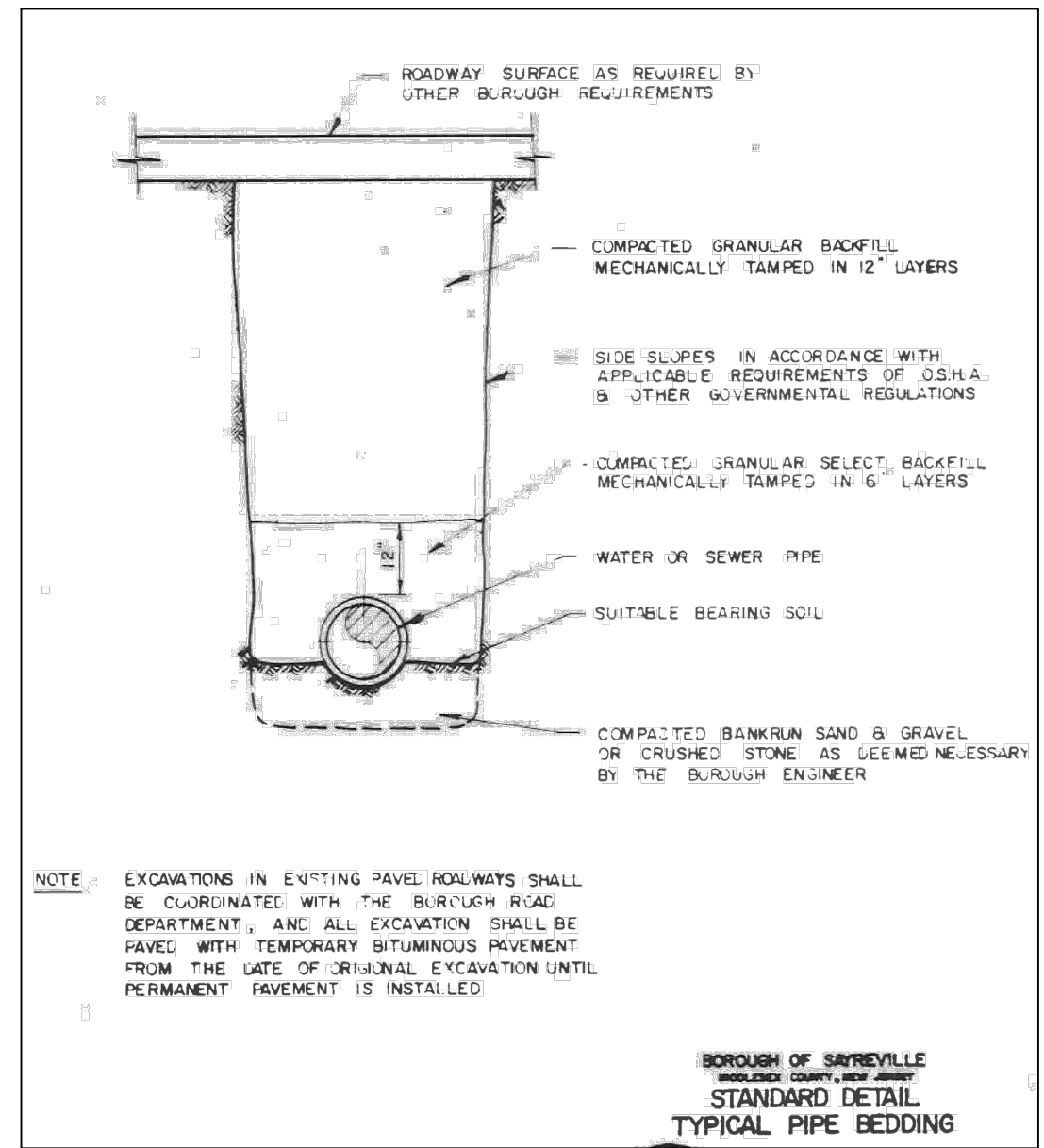
**ROOF DRAIN CONNECTION**  
N.T.S.



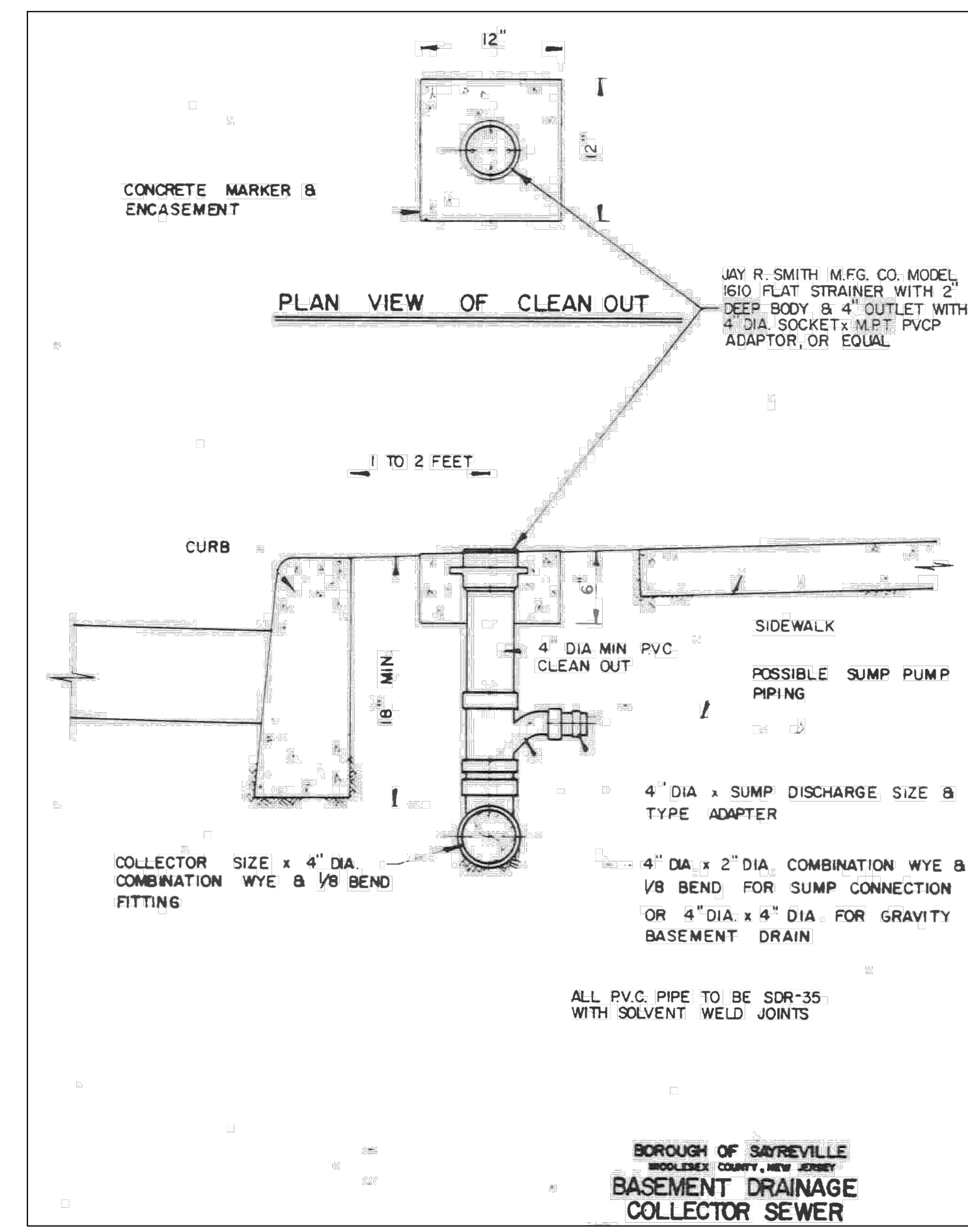
**CURB INLET WITH BICYCLE SAFE GRATE AND TYPE 'N' - ECO CURB PIECE**  
N.T.S.



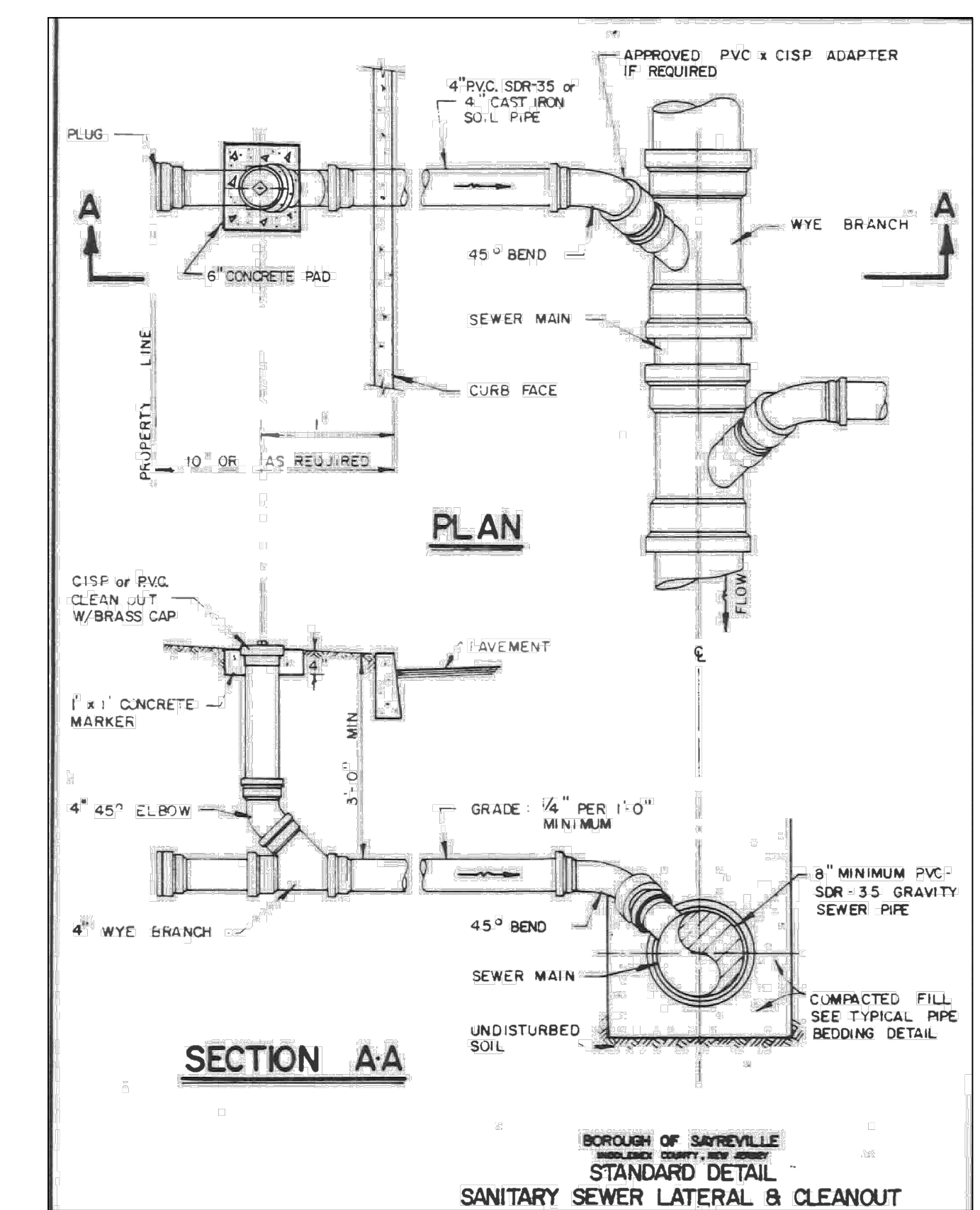
**STANDARD DETAILS-DRIVEWAY ENTRANCE DEPRESSED CURB, DRIVEWAY APRON & SIDEWALK**  
Borough of Sayreville  
Middlesex County, New Jersey  
CME ASSOCIATES CONSULTING AND MUNICIPAL ENGINEERS



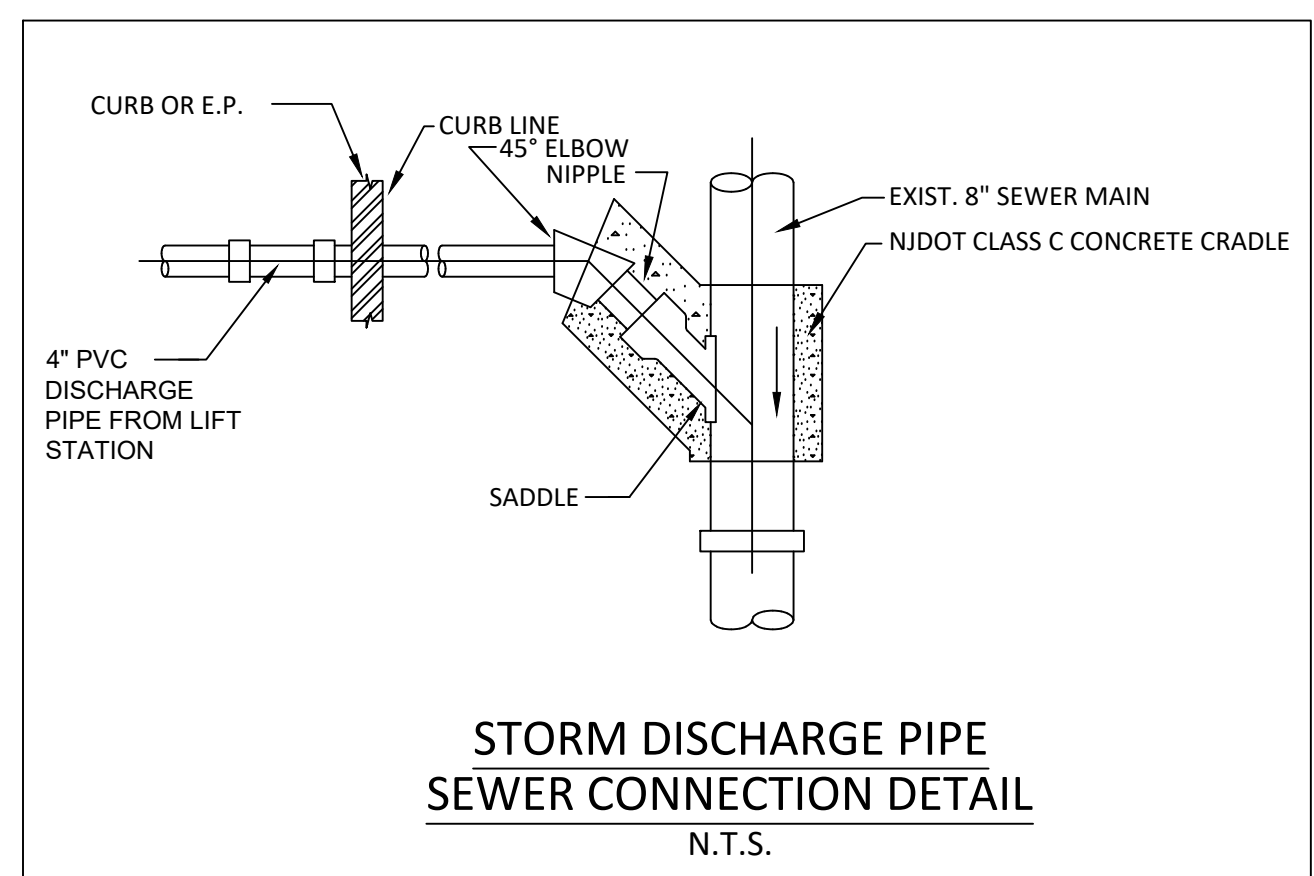
**STANDARD DETAIL TYPICAL PIPE BEDDING**  
Borough of Sayreville  
Middlesex County, New Jersey



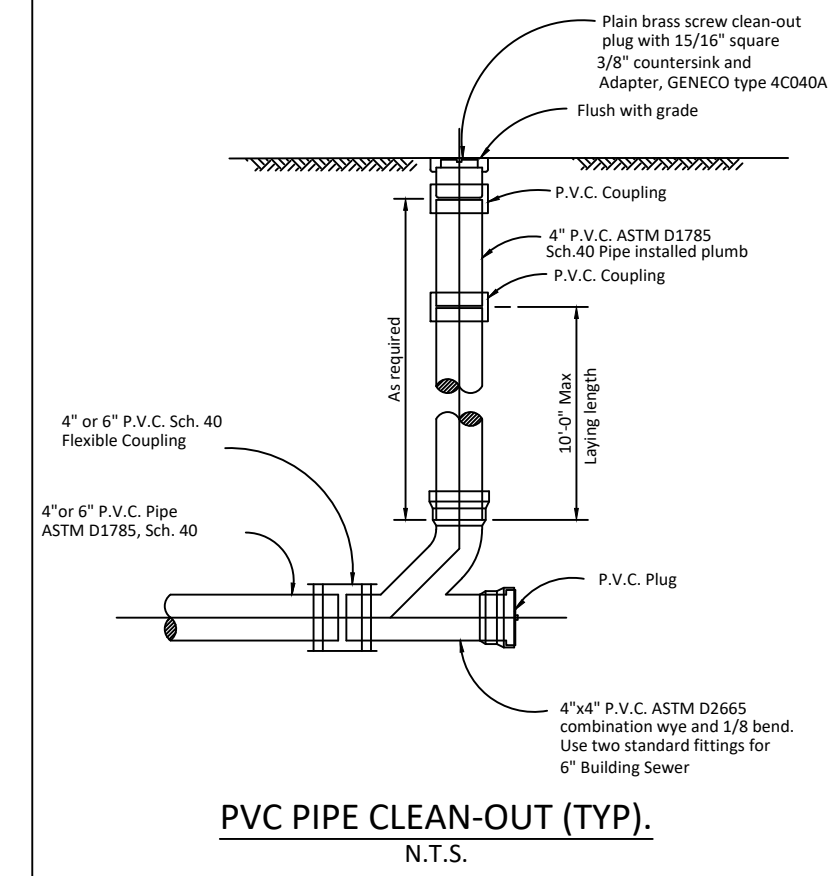
**BASE DRAINAGE COLLECTOR SEWER**  
Borough of Sayreville  
Middlesex County, New Jersey



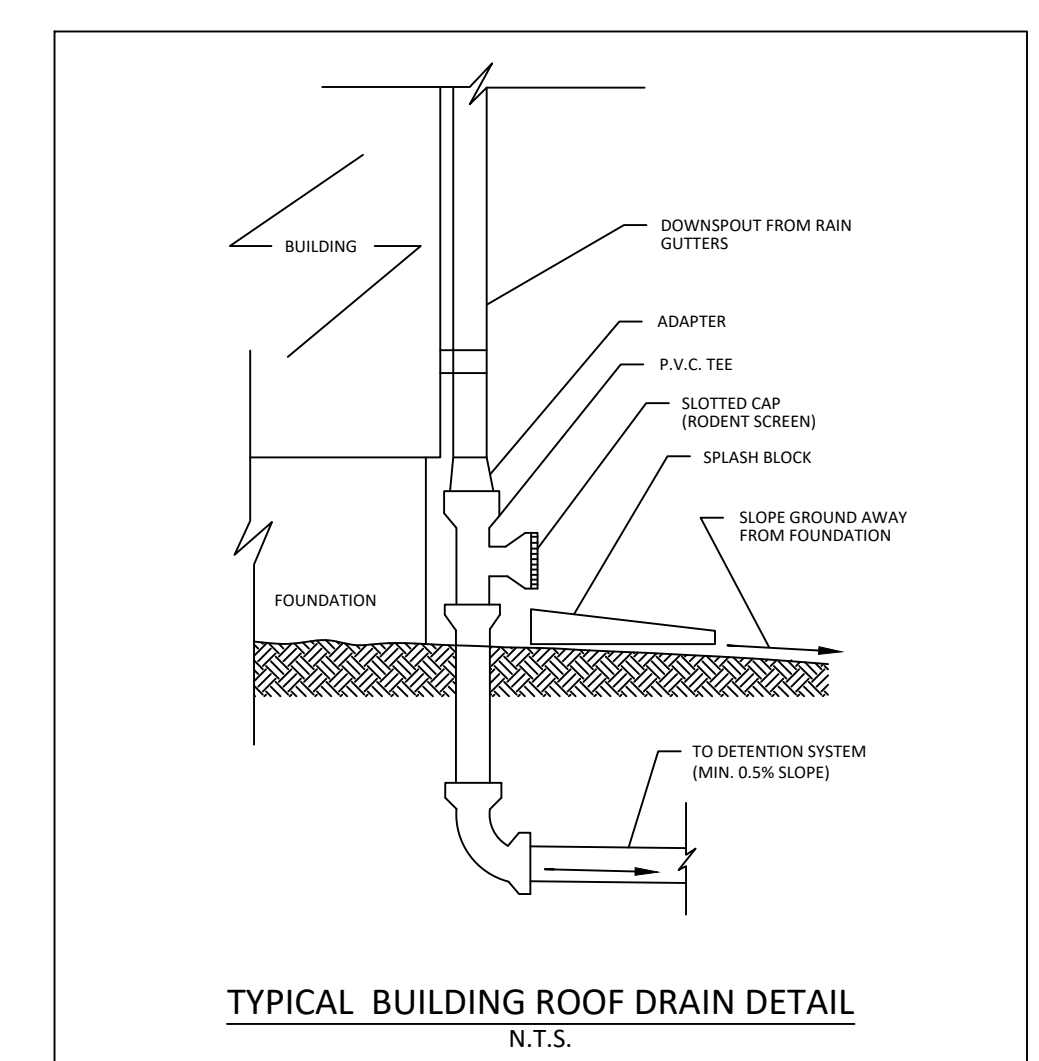
**SANITARY SEWER LATERAL & CLEANOUT**  
Borough of Sayreville  
Middlesex County, New Jersey



**STORM DISCHARGE PIPE SEWER CONNECTION DETAIL**  
N.T.S.



**PVC PIPE CLEAN-OUT (TYP.)**  
N.T.S.



**TYPICAL BUILDING ROOF DRAIN DETAIL**  
N.T.S.

**TAX LOTS 23, 24, 25 & 28 BLOCK 444.04**  
**212, 214 & 216 ERNSTON ROAD**  
**BOROUGH OF SAYREVILLE**  
**MIDDLESEX COUNTY, NEW JERSEY**

**CONSTRUCTION DETAILS**

**C-16**  
SHEET 16 OF 19

**ADNAN A. KHAN, P.E., C.M.E.**  
PROFESSIONAL ENGINEER  
DATE: 12/20/21  
DESIGNED BY: AK  
DATE: 10/25/23  
APPROVED BY: AK  
DATE: 12/20/21

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New Jersey Certificate of Authorization No.: 24GA28118400  
Pennsylvania Certificate of Authority No.: 3771354

**JOB NUMBER: 21-1009**  
**SCALE: AS SHOWN**



**CULTEC RECHARGER® 360HD PRODUCT SPECIFICATIONS**

**GENERAL**  
CULTEC RECHARGER® 360HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

**CHAMBER PARAMETERS**

- THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL INCLUDE:
  - INSTANTANEOUS ASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
  - MAXIMUM PERMANENT (50-YEAR) COVER LOAD
  - 1-WEEK PARKED ASHTO DESIGN TRUCK LOAD
- THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
  - THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
  - THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
  - THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95
- THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
- THE CHAMBER SHALL BE ARCHED IN SHAPE.
- THE CHAMBER SHALL BE OPEN-BOTTOMED.
- THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERS OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
- THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 360HD SHALL BE 36 INCHES (915 mm) TALL, 60 INCHES (1525 mm) WIDE AND 50 INCHES (1275 mm) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER® 360HD SHALL BE 3.67 FEET (1.12 m).
- MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 360HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750mm) PVC.
- THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN THE SIDE PORTAL IS 10 INCH (250mm) HDPE OR 12 INCH (300mm) PVC.
- THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
- THE NOMINAL STORAGE VOLUME OF THE RECHARGER® 360HD CHAMBER SHALL BE 10.0 FT<sup>3</sup> / FT (328 m<sup>3</sup> / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER® 360HD SHALL BE 36.46 FT<sup>3</sup> / UNIT (1.038 m<sup>3</sup> / UNIT) - WITHOUT STONE.
- THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE 0.913 FT<sup>3</sup> / FT (0.085 m<sup>3</sup> / m) - WITHOUT STONE.
- THE RECHARGER® 360HD CHAMBER SHALL HAVE 7 CORRUGATIONS.
- THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
- MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12.0 FEET (3.66 m).

**END CAP PARAMETERS**

- THE CULTEC RECHARGER® 360HD END CAP (REFERRED TO AS 'END CAP') SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- THE END CAP SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
- THE END CAP SHALL BE ARCHED IN SHAPE.
- THE END CAP SHALL BE OPEN-BOTTOMED.
- THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERS OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
- THE END CAP SHALL HAVE 5 CORRUGATIONS.
- THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 38.5 INCHES (977 mm) TALL, 60 INCHES (1525 mm) WIDE AND 16 INCHES (406 mm) LONG. WHEN JOINED WITH A RECHARGER® 360HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 16 INCHES (406 mm).
- THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 5.17 FT<sup>3</sup> / FT (0.48 m<sup>3</sup> / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 8.46 FT<sup>3</sup> / UNIT (0.183 m<sup>3</sup> / UNIT) - WITHOUT STONE.
- MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750mm) PVC.
- THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
- THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

**CULTEC HVLV FC-48 FEED CONNECTOR PRODUCT SPECIFICATIONS**

**GENERAL**  
CULTEC HVLV FC-48 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER MODEL 360HD STORMWATER CHAMBERS.

**FEED CONNECTOR PARAMETERS**

- THE FEED CONNECTOR SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE).
- THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE.
- THE FEED CONNECTOR SHALL BE OPEN-BOTTOMED.
- THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.
- THE NOMINAL STORAGE VOLUME OF THE HVLV FC-48 FEED CONNECTOR SHALL BE 0.913 FT<sup>3</sup> / FT (0.085 m<sup>3</sup> / m) - WITHOUT STONE.
- THE HVLV FC-48 FEED CONNECTOR SHALL HAVE 4 CORRUGATIONS.
- THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A WHOLE UNIT HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
- THE FEED CONNECTOR SHALL BE DESIGNED TO WITHSTAND ASHTO HS-20 DEFINED LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
- THE FEED CONNECTOR SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.

**CULTEC NO. 410™ NON-WOVEN GEOTEXTILE**  
CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

**GEOTEXTILE PARAMETERS**

- THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
- THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M).
- THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (500 L/MIN/M) PER ASTM D4491 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

**CULTEC NO. 4800™ WOVEN GEOTEXTILE**  
CULTEC NO. 4800 WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.

**GEOTEXTILE PARAMETERS**

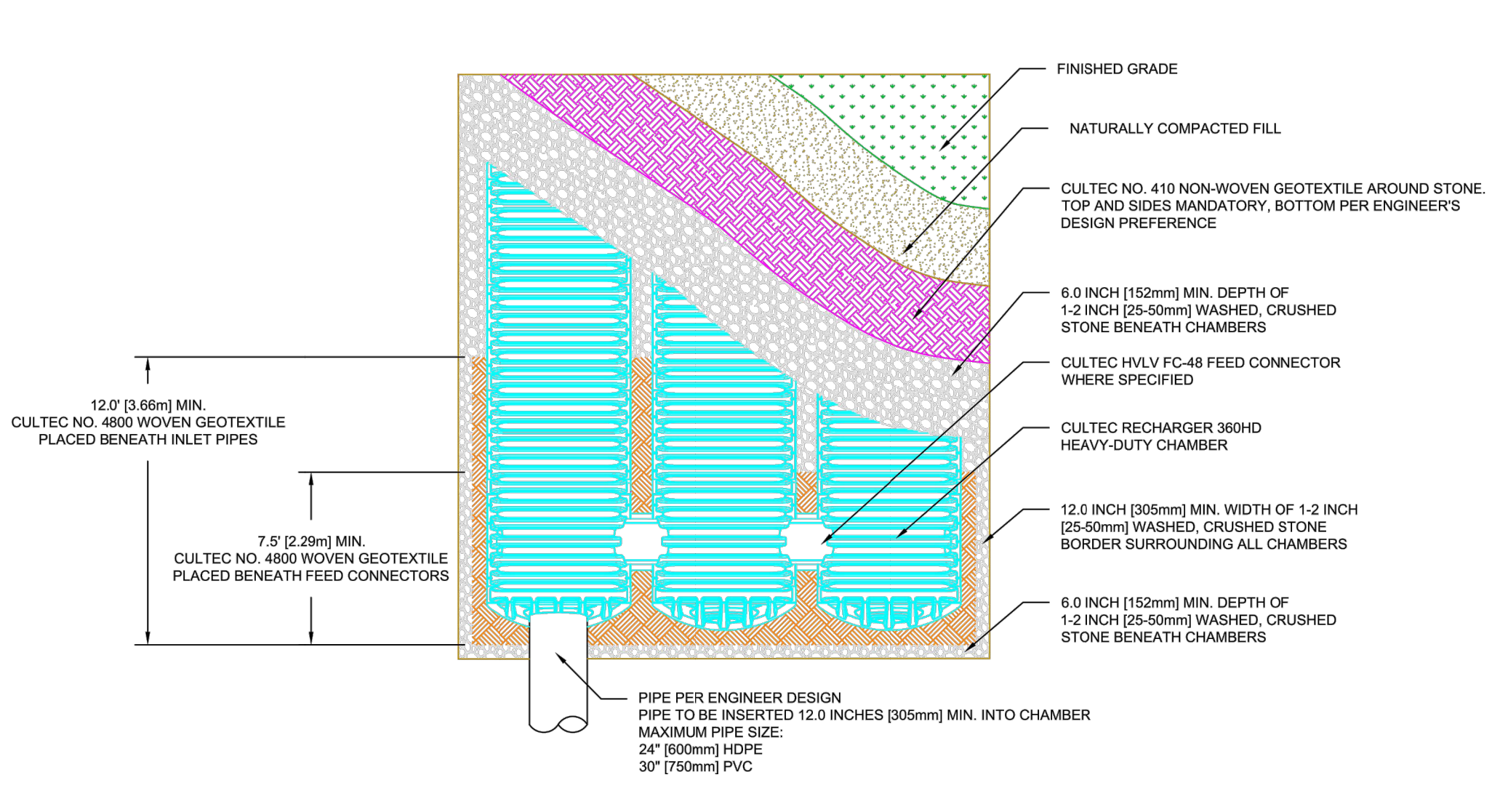
- THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
- THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 550 X 550 LBS (2,448 X 2,448 N) PER ASTM D4632 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 20 X 20% PER ASTM D4632 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 5,070 X 5,070 LBS/FT (74 X 74 KN/M) PER ASTM D4595 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 2% STRAIN OF 960 X 1,096 LBS/FT (14 X 16 KN/M) PER ASTM D4595 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 5% STRAIN OF 2,740 X 2,740 LBS/FT (40 X 40 KN/M) PER ASTM D4595 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 10% STRAIN OF 4,800 X 4,800 LBS/FT (70 X 70 KN/M) PER ASTM D4595 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,700 LBS (7,560 N) PER ASTM D6241 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 180 X 180 LBS (801 X 801 N) PER ASTM D4533 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 40 US STD. SIEVE (0.425 MM) PER ASTM D4751 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.15 SEC-1 PER ASTM D4491 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 11.5 GPM/FT2 (470 LPM/M2) PER ASTM D4491 TESTING METHOD.
- THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 80% @ 500 HRS. PER ASTM D4355 TESTING METHOD.

**GENERAL NOTES**

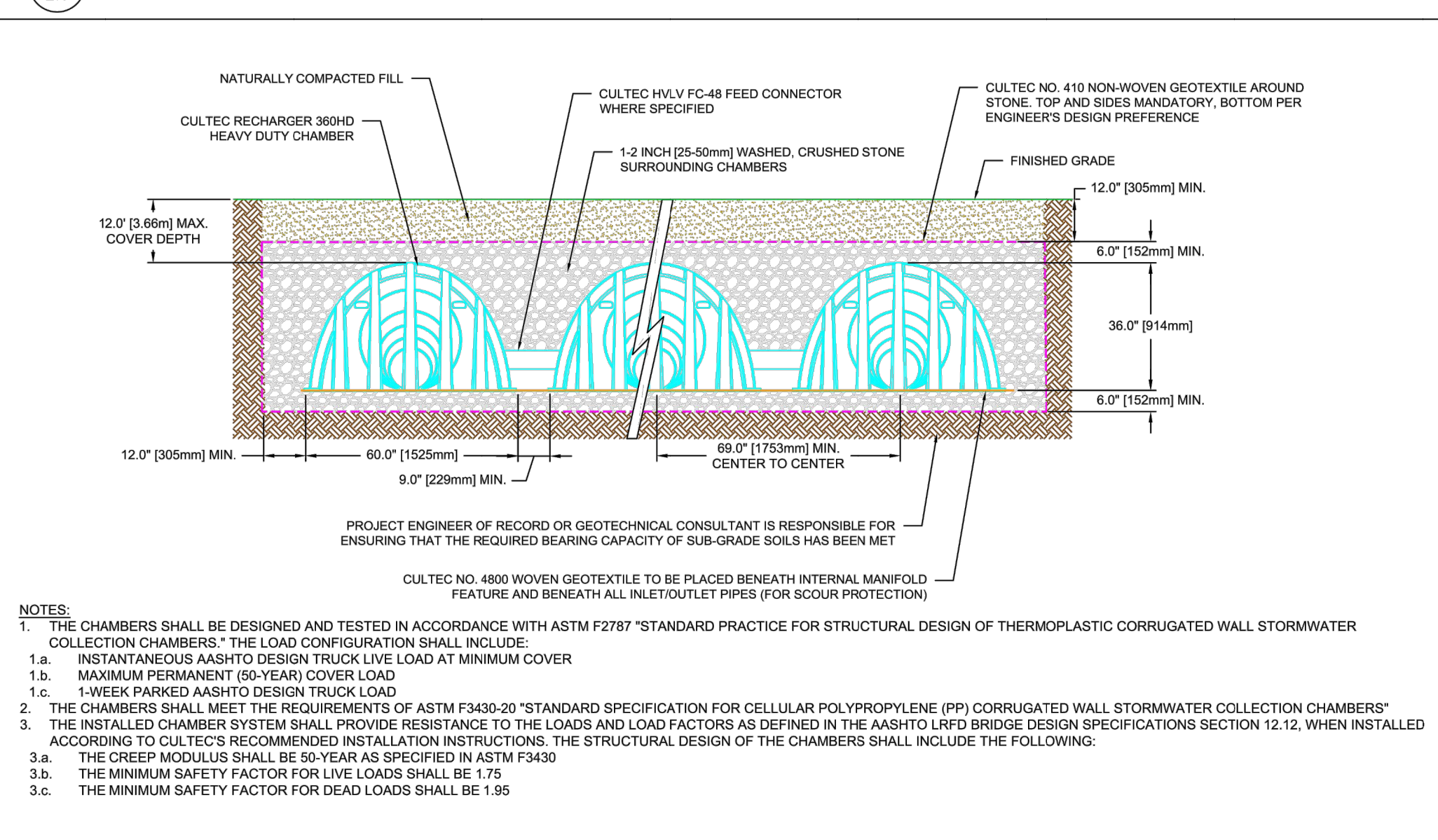
- THE TYPICAL INVERT TABLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC PIPE. THE HEAVY DUTY END CAP HAS PRE-MARKED TRIM LINES FOR PIPE DIAMETERS 12" (300mm), 15" (375mm), 18" (450mm) AND 24" (600mm). PIPES OF ANY SIZE AND MATERIAL UP TO 24" (600mm) MAY BE PLACED AT CUSTOM LOCATIONS AND CUSTOM INVERTS. 30" (750 mm) SMOOTH-WALL SDR-35 PVC PIPE MAY BE USED AT THE BOTTOM OF THE END CAP. THE CROWN OF THE PIPE MUST REMAIN A MINIMUM OF 3" (75mm) FROM THE EDGE OF THE HEAVY DUTY END CAP.

| PIPE         | A               | B             |
|--------------|-----------------|---------------|
| 6" [150 mm]  | 26.00" [660 mm] | 0.75" [20 mm] |
| 8" [200 mm]  | 24.00" [600 mm] | 1.00" [25 mm] |
| 10" [250 mm] | 21.00" [525 mm] | 1.25" [32 mm] |
| 12" [300 mm] | 18.00" [450 mm] | 1.75" [45 mm] |
| 15" [375 mm] | 15.00" [375 mm] | 2.00" [50 mm] |
| 18" [450 mm] | 12.00" [300 mm] | 2.25" [58 mm] |
| 24" [600 mm] | 6.00" [150 mm]  | 2.50" [64 mm] |

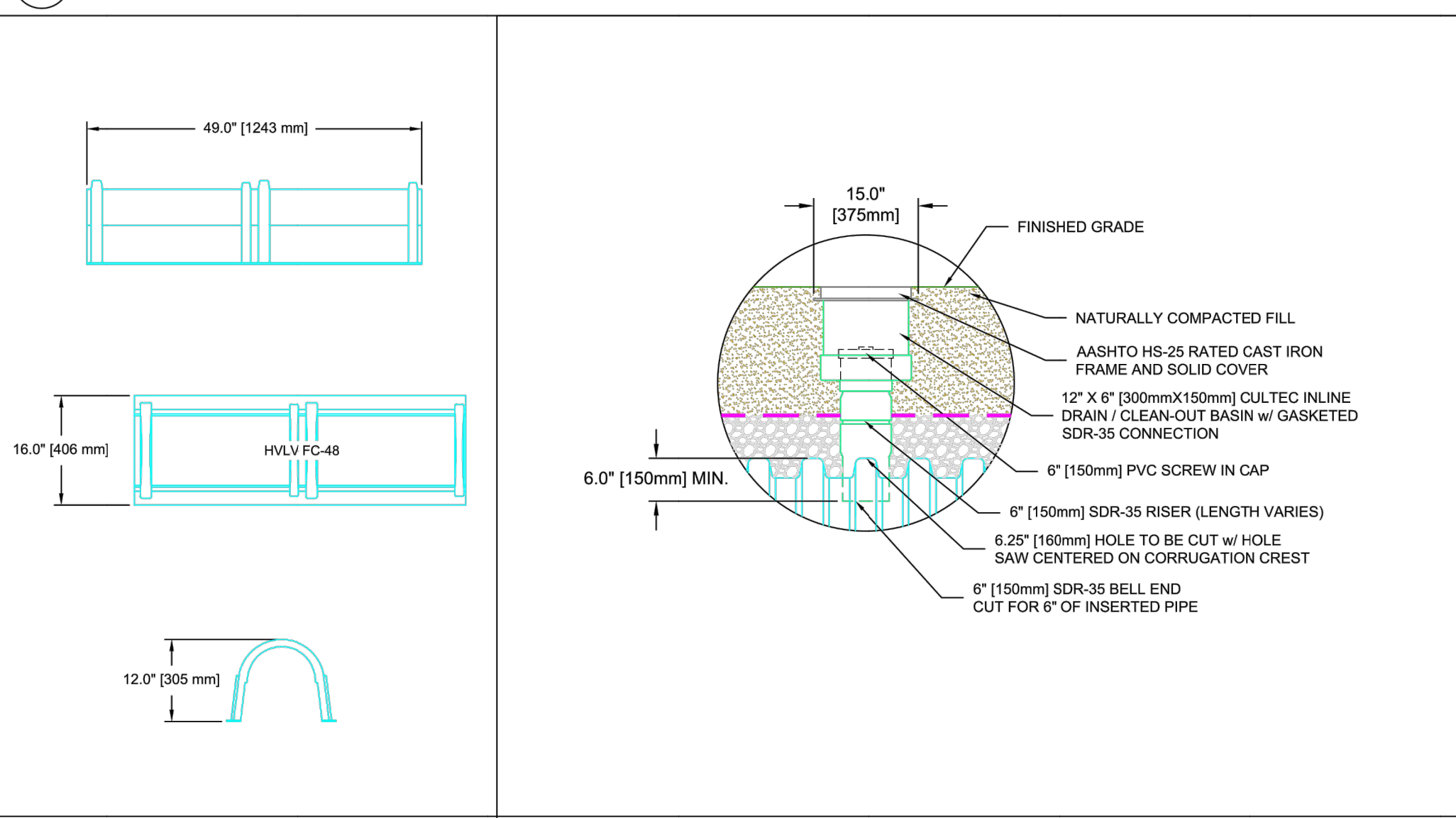
**CULTEC RECHARGER 360HD TYPICAL PIPE INVERTS**



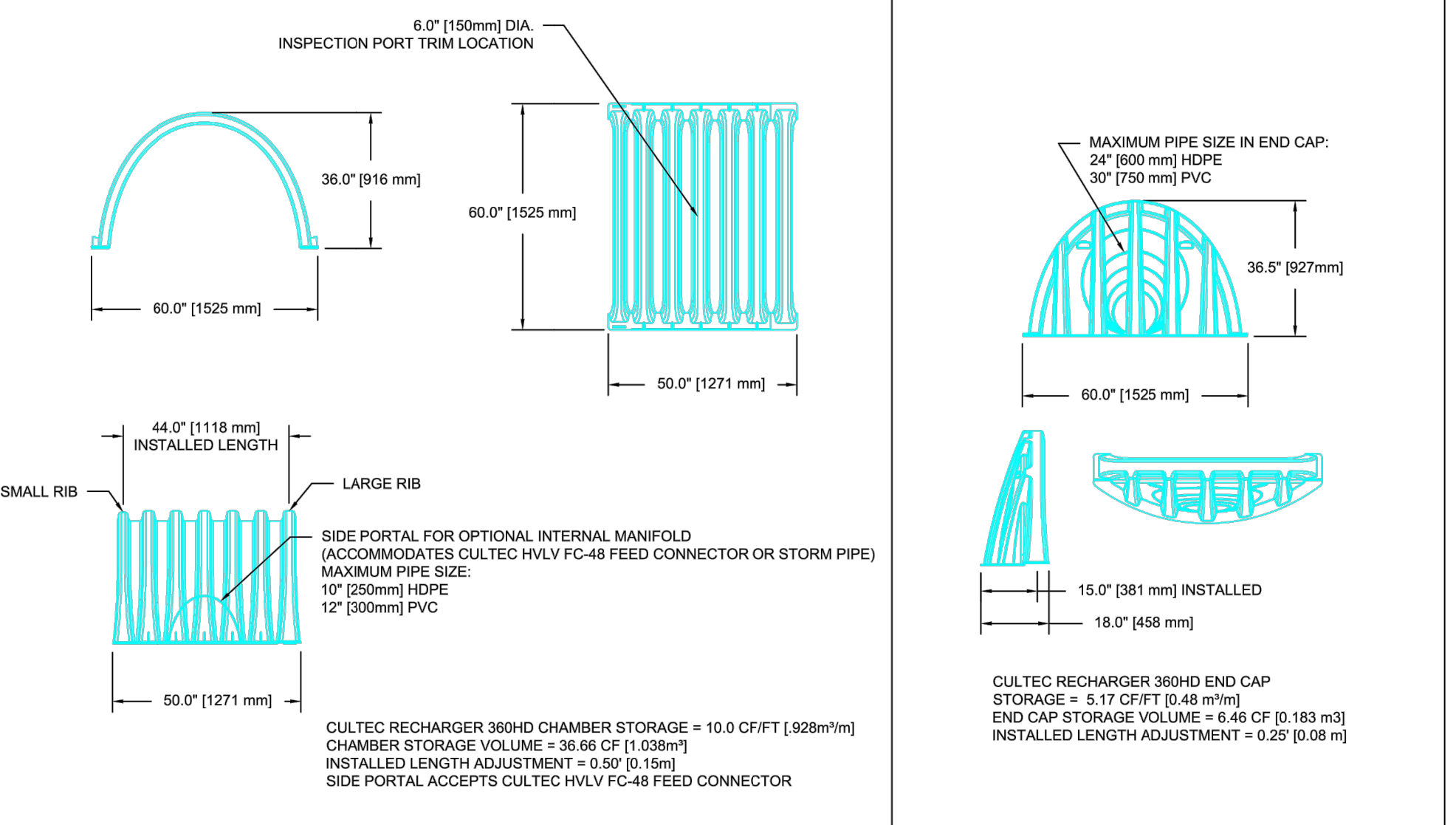
**CULTEC RECHARGER 360HD HEAVY DUTY PLAN VIEW**



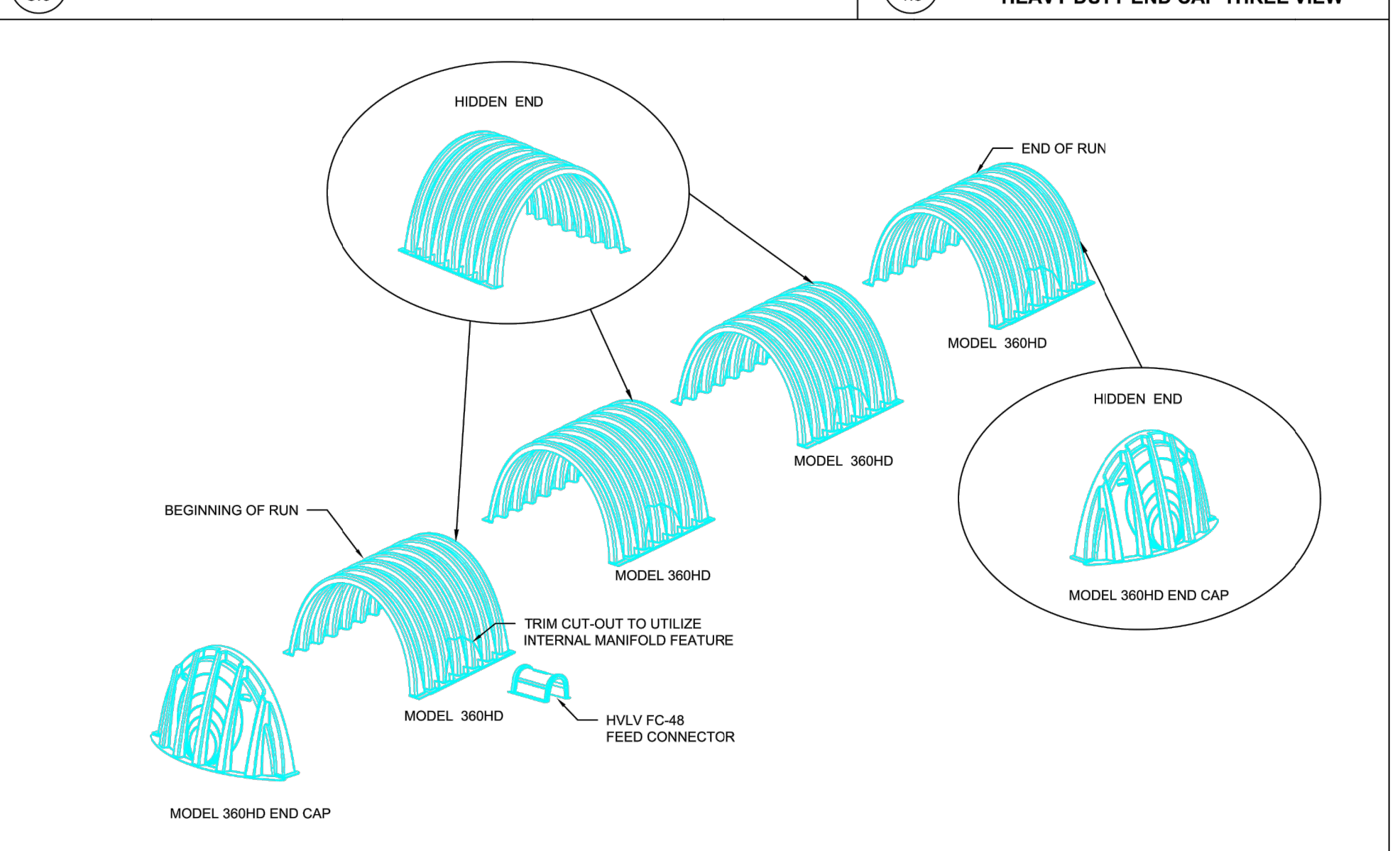
**CULTEC RECHARGER 360HD HEAVY DUTY CROSS SECTION**



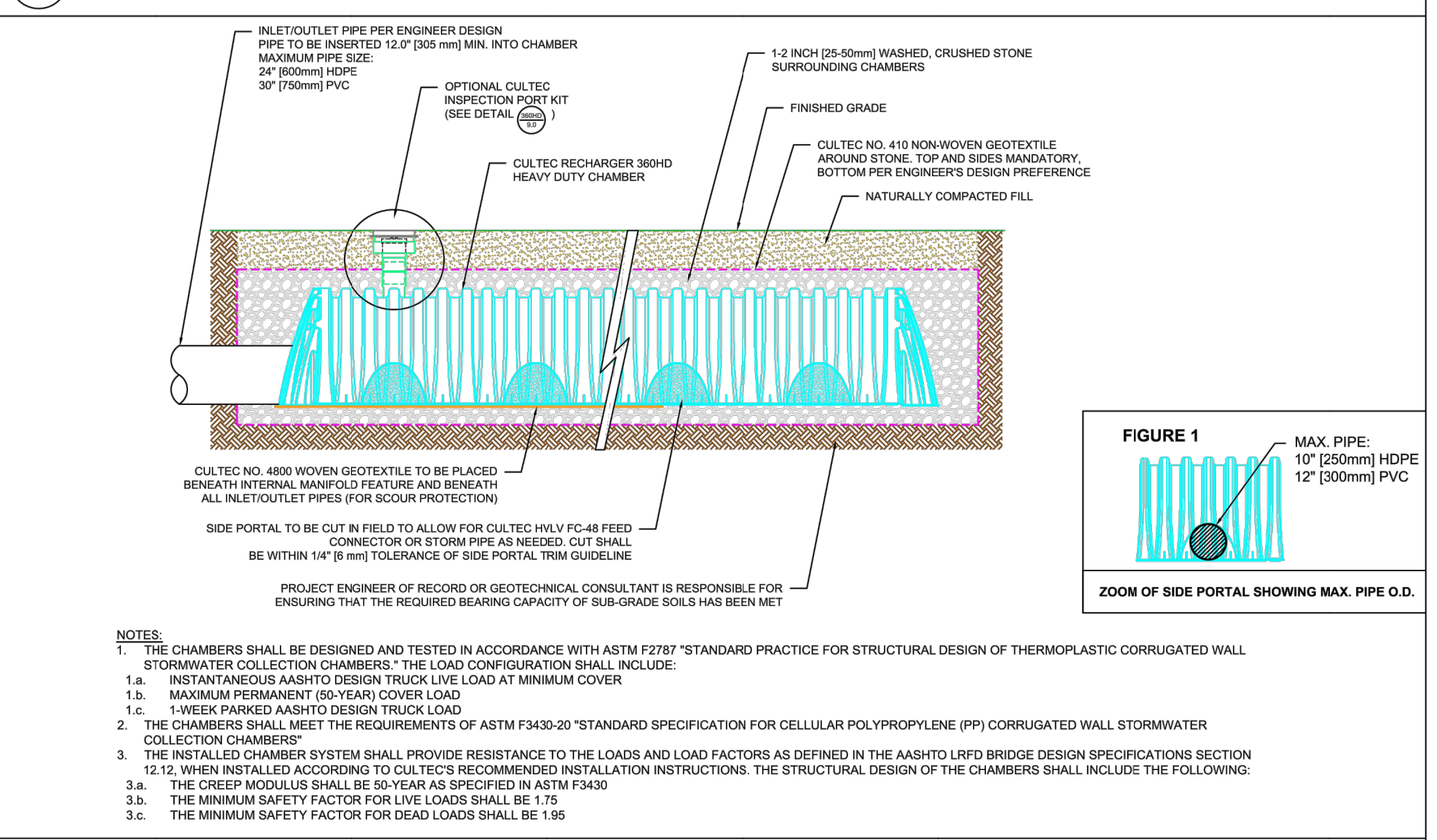
**CULTEC HVLV FC-48 FEED CONNECTOR THREE VIEW**



**CULTEC RECHARGER 360HD HEAVY DUTY THREE VIEW**



**CULTEC RECHARGER 360HD HEAVY DUTY TYPICAL INTERLOCK**



**CULTEC INTERNAL MANIFOLD - OPTIONAL INSPECTION PORT DETAIL**

**ADNAN A. KHAN, P.E., C.M.E.**  
PROFESSIONAL ENGINEER  
DATE: 12/20/21  
DESIGNED BY: AK  
DATE: 12/20/21  
APPROVED BY: AK  
DATE: 12/20/21

1. PER REVIEW COMMENTS  
NO.  
REVISIONS  
DATE: 12/20/21  
BY: APZ

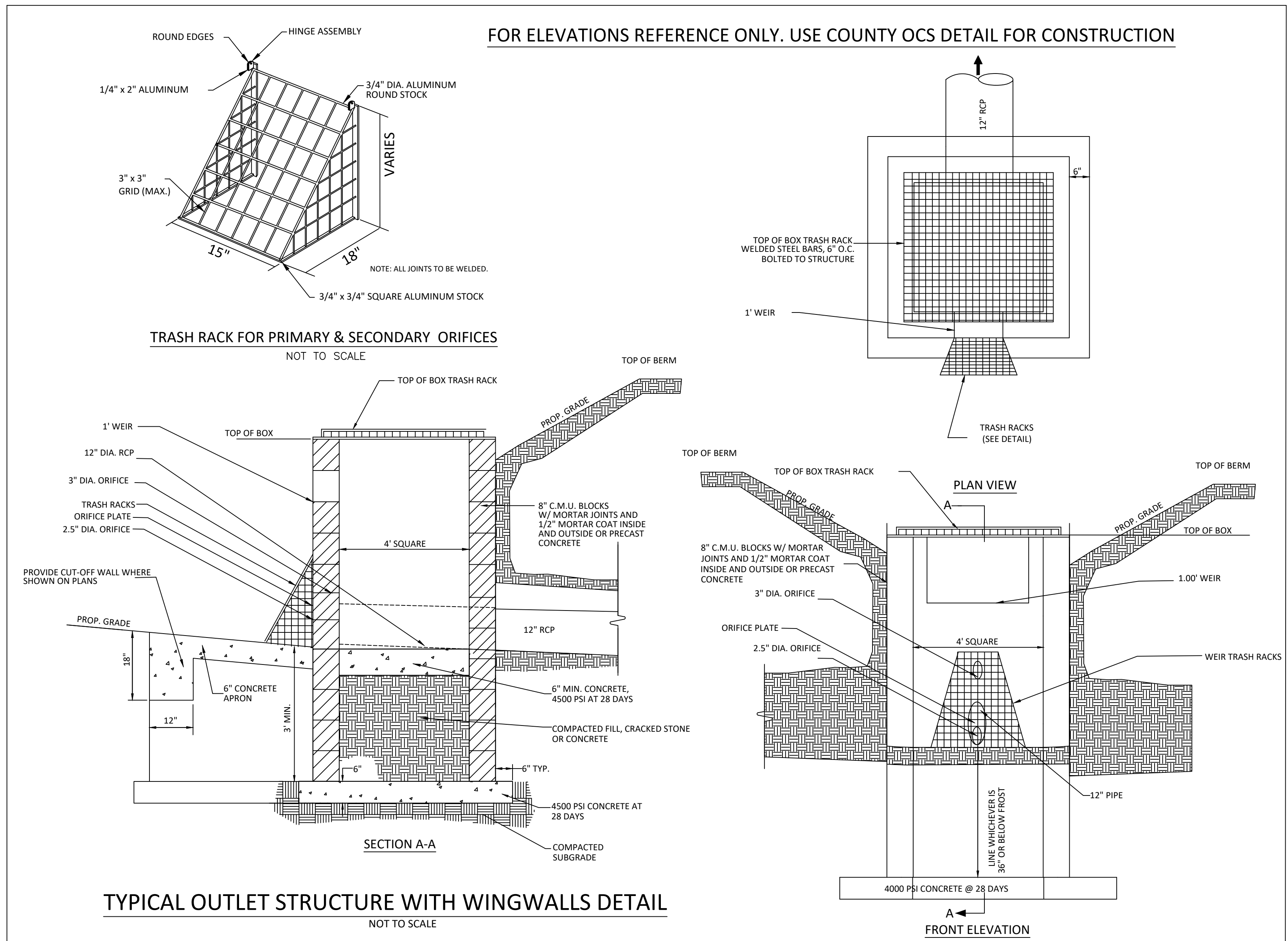
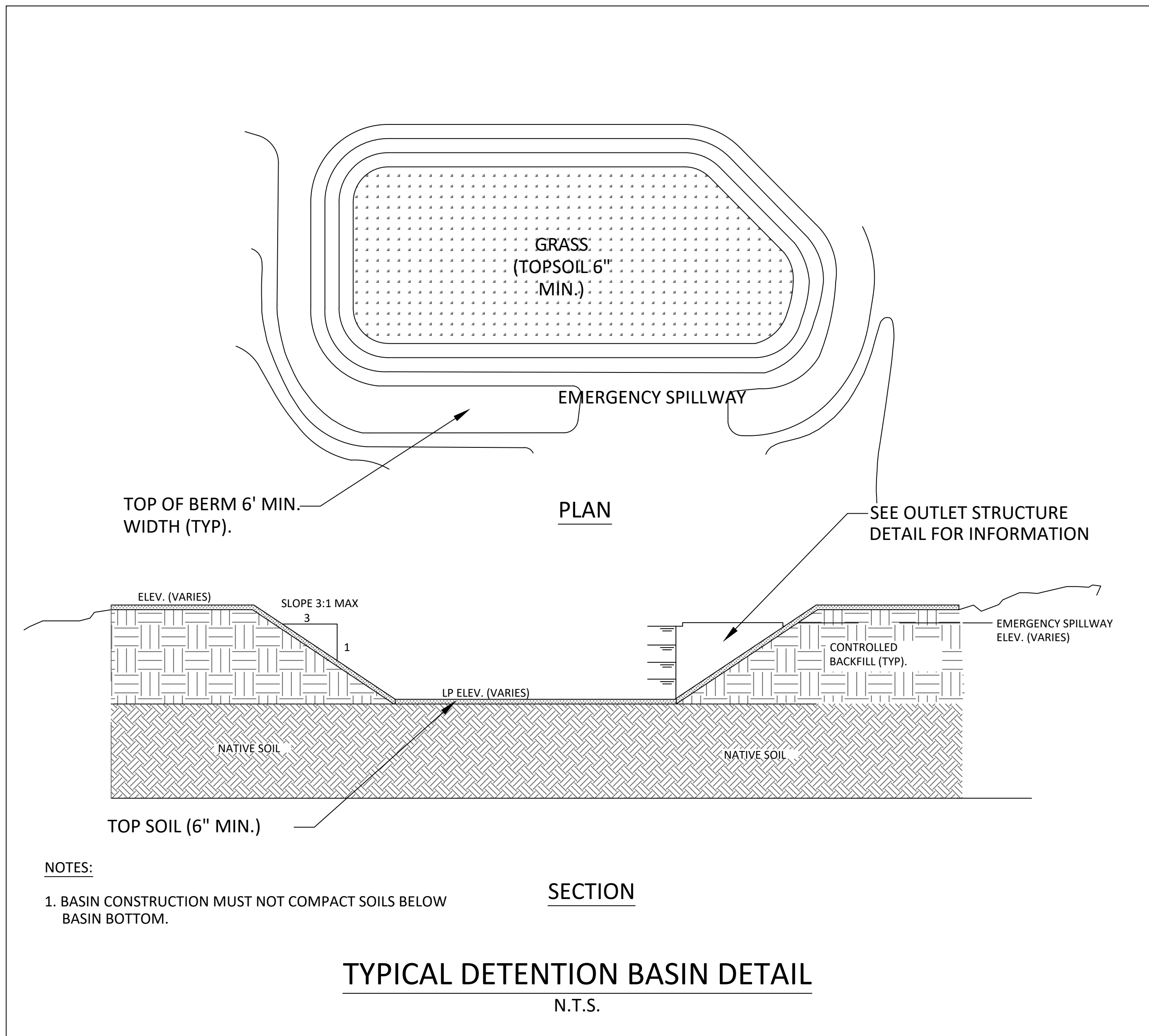
**AWZ ENGINEERING, INC.**  
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www.awzengineering.com e-mail: info@awzengineering.com  
New Jersey Certificate of Authorization No.: 24GA28118400  
Pennsylvania Certificate of Authority No.: 37713554

TAX LOTS 23, 24, 25 & 28  
BLOCK 444.04  
212, 214 & 216 ERNSTON ROAD  
BOROUGH OF SAYREVILLE  
MIDDLESEX COUNTY, NEW JERSEY  
CONSTRUCTION DETAILS

JOB NUMBER:  
21-1009

SCALE: AS SHOWN

C-17  
SHEET 17 OF 19



**Chamber Model = Cultec R-360HD (Cultec Recharger@360HD)**  
 Effective Size= 54.9"W x 36.0"H => 9.99 sf x 3.67'L = 36.6 cf  
 Overall Size= 60.0"W x 36.0"H x 4.17'L with 0.50' Overlap  
 Cap Storage= +6.5 cf x 2 x 10 rows = 129.2 cf

60.0" Wide x 9.0" Spacing = 69.0" C-C Row Spacing

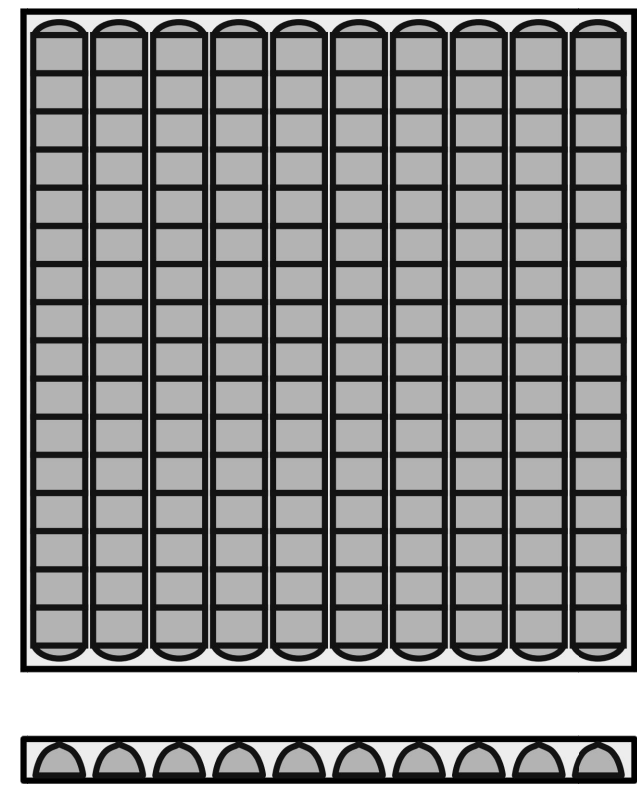
16 Chambers/Row x 3.67' Long + 1.25' Cap Length x 2 = 61.17' Row Length + 12.0" End Stone x 2 = 63.17' Base Length  
 10 Rows x 60.0" Wide x 9.0" Spacing x 9 + 12.0" Side Stone x 2 = 58.75' Base Width  
 6.0" Base + 36.0" Chamber Height + 6.0" Cover = 4.00' Field Height

160 Chambers x 36.6 cf + 6.5 of Cap Volume x 2 x 10 Rows = 5,992.3 of Chamber Storage

14,844.2 cf Field - 5,992.3 of Chambers = 8,851.8 of Stone x 40.0% Voids = 3,540.7 of Stone Storage

Chamber Storage + Stone Storage = 9,533.1 cf = 0.219 af  
 Overall Storage Efficiency = 64.2%  
 Overall System Size = 63.17' x 58.75' x 4.00'

160 Chambers  
 549.8 cy Field  
 327.8 cy Stone



**Summary for Pond Det.: Detention System**

Inflow Area = 2,258 ac, 49.41% Impervious, Inflow Depth = 4.54" for 100-Year event  
 Inflow = 10.09 cfs @ 12.10 hrs, Volume= 0.855 af  
 Outflow = 6.31 cfs @ 12.14 hrs, Volume= 0.835 af, Atten= 38%, Lag= 2.3 min  
 Primary = 1.23 cfs @ 12.13 hrs, Volume= 0.634 af  
 Secondary = 5.08 cfs @ 12.14 hrs, Volume= 0.200 af  
 Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
 Peak Elev= 87.49' @ 12.14 hrs Surf.Area= 3,711 sf Storage= 7,826 cf

Plug-Flow detention time= 77.6 min calculated for 0.835 af (98% of inflow)  
 Center-of-Mass det. time= 62.1 min ( 822.8 - 760.8 )

| Volume | Invert | Avail. Storage | Storage Description  |
|--------|--------|----------------|--|
| #1A    | 84.50' | 3,541 cf       | 58.75'W x 63.17'L x 4.00'H Field A   |
| #2A    | 85.00' | 5,992 cf       | 14,844 of Overall - 5,992 cf Embedded = 8,852 cf x 40.0% Voids<br>Cultec R-360HD x 160 Inside #1<br>Effective Size= 54.9"W x 36.0"H => 9.99 sf x 3.67'L = 36.6 cf<br>Overall Size= 60.0"W x 36.0"H x 4.17'L with 0.50' Overlap<br>160 Chambers in 10 Rows<br>Cap Storage= +6.5 cf x 2 x 10 rows = 129.2 cf |
|        |        | 9,533 cf       | Total Available Storage  |

Storage Group A created with Chamber Wizard

| Device | Routing   | Invert | Outlet Devices  |
|--------|-----------|--------|---|
| #1     | Primary   | 85.00' | 6.0" Vert. Orifice/Grate C= 0.600   |
| #2     | Secondary | 86.14' | 10.0" Vert. Orifice/Grate X 2.00 C= 0.600   |
| #3     | Tertiary  | 88.45' | 2.0' long x 0.7' breadth Broad-Crested Rectangular Weir<br>Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00<br>2.50<br>Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32<br>3.31 3.32 |

**Cut/Fill Summary**

| Name      | Cut Factor | Fill Factor | 2d Area           | Cut             | Fill            | Net                   |
|-----------|------------|-------------|-------------------|-----------------|-----------------|-----------------------|
| SITE WORK | 1.000      | 1.000       | 105854.6 Sq. Ft.  | 1075.41 Cu. Yd. | 3512.01 Cu. Yd. | 2436.60 Cu. Yd.<Fill> |
| CULTEC    |            |             | 3774.99 Sq. Ft.   | 559.26 Cu. Yd.  | 0 Cu. Yd.       | 559.26 Cu. Yd.<Cut>   |
| TOTALS    |            |             | 109629.59 Sq. Ft. | 1634.67 Cu. Yd. | 3512.01 Cu. Yd. | 1877.34 Cu. Yd.<Fill> |

\* THE ABOVE CALCULATIONS DO NOT INCLUDE SOIL REMOVAL (CUT) FROM BASEMENT/FOUNDATION AREA.

**Summary for Pond Det.: Detention System**

Inflow Area = 2,258 ac, 49.41% Impervious, Inflow Depth = 4.54" for 100-Year event  
 Inflow = 10.09 cfs @ 12.10 hrs, Volume= 0.855 af  
 Outflow = 6.31 cfs @ 12.14 hrs, Volume= 0.835 af, Atten= 38%, Lag= 2.3 min  
 Primary = 1.23 cfs @ 12.13 hrs, Volume= 0.634 af  
 Secondary = 5.08 cfs @ 12.14 hrs, Volume= 0.200 af  
 Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

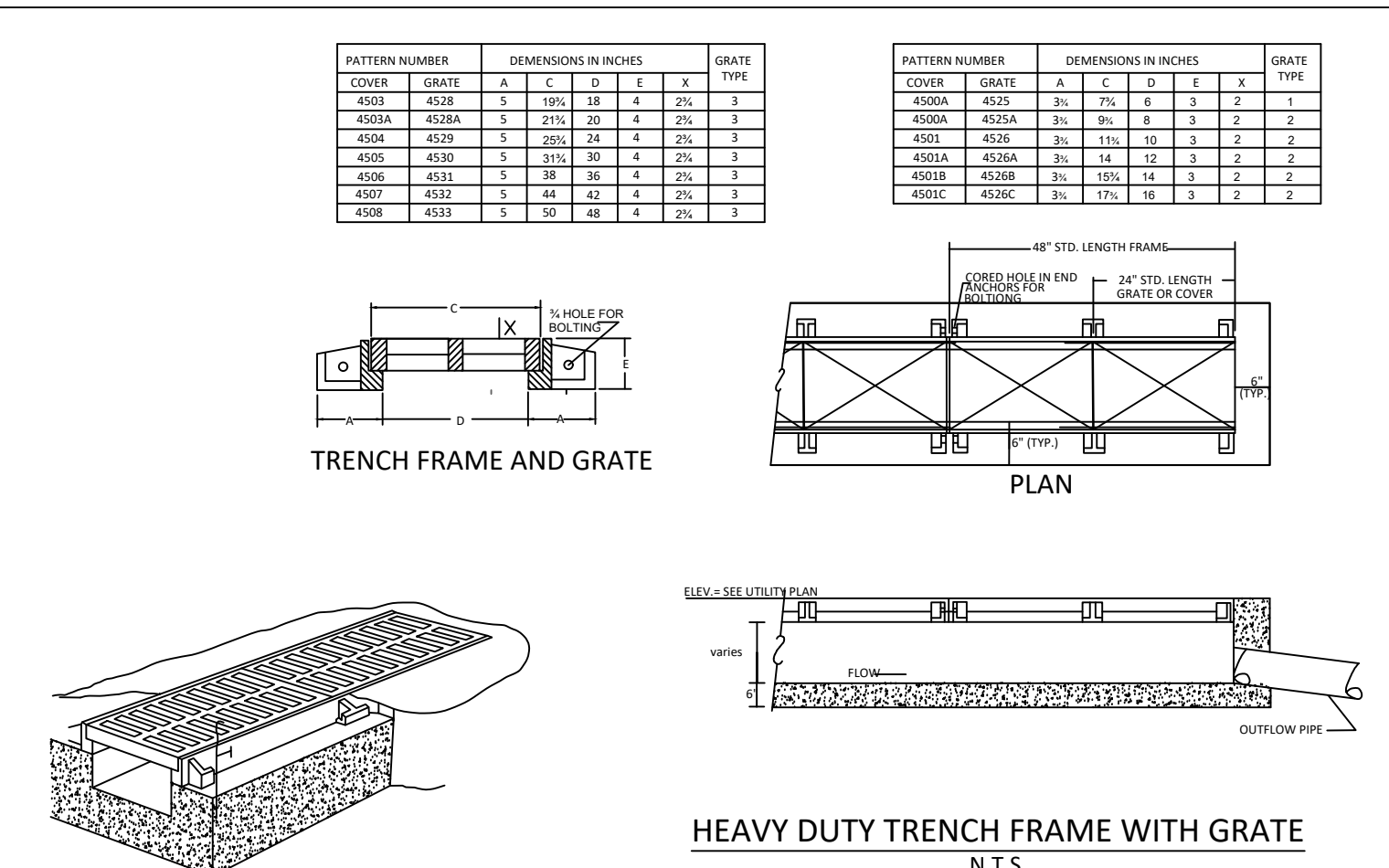
Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs  
 Peak Elev= 87.49' @ 12.14 hrs Surf.Area= 3,711 sf Storage= 7,826 cf

Plug-Flow detention time= 77.6 min calculated for 0.835 af (98% of inflow)  
 Center-of-Mass det. time= 62.1 min ( 822.8 - 760.8 )

| Volume | Invert | Avail. Storage | Storage Description  |
|--------|--------|----------------|--|
| #1A    | 84.50' | 3,541 cf       | 58.75'W x 63.17'L x 4.00'H Field A   |
| #2A    | 85.00' | 5,992 cf       | 14,844 of Overall - 5,992 cf Embedded = 8,852 cf x 40.0% Voids<br>Cultec R-360HD x 160 Inside #1<br>Effective Size= 54.9"W x 36.0"H => 9.99 sf x 3.67'L = 36.6 cf<br>Overall Size= 60.0"W x 36.0"H x 4.17'L with 0.50' Overlap<br>160 Chambers in 10 Rows<br>Cap Storage= +6.5 cf x 2 x 10 rows = 129.2 cf |
|        |        | 9,533 cf       | Total Available Storage  |

Storage Group A created with Chamber Wizard

| Device | Routing   | Invert | Outlet Devices  |
|--------|-----------|--------|---|
| #1     | Primary   | 85.00' | 6.0" Vert. Orifice/Grate C= 0.600   |
| #2     | Secondary | 86.14' | 10.0" Vert. Orifice/Grate X 2.00 C= 0.600   |
| #3     | Tertiary  | 88.45' | 2.0' long x 0.7' breadth Broad-Crested Rectangular Weir<br>Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00<br>2.50<br>Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32<br>3.31 3.32 |



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 PROFESSIONAL ENGINEER  
 P.A. LICENSE NO. 49856  
 N.Y. LICENSE NO. 08645 M.D. LICENSE NO. 41803

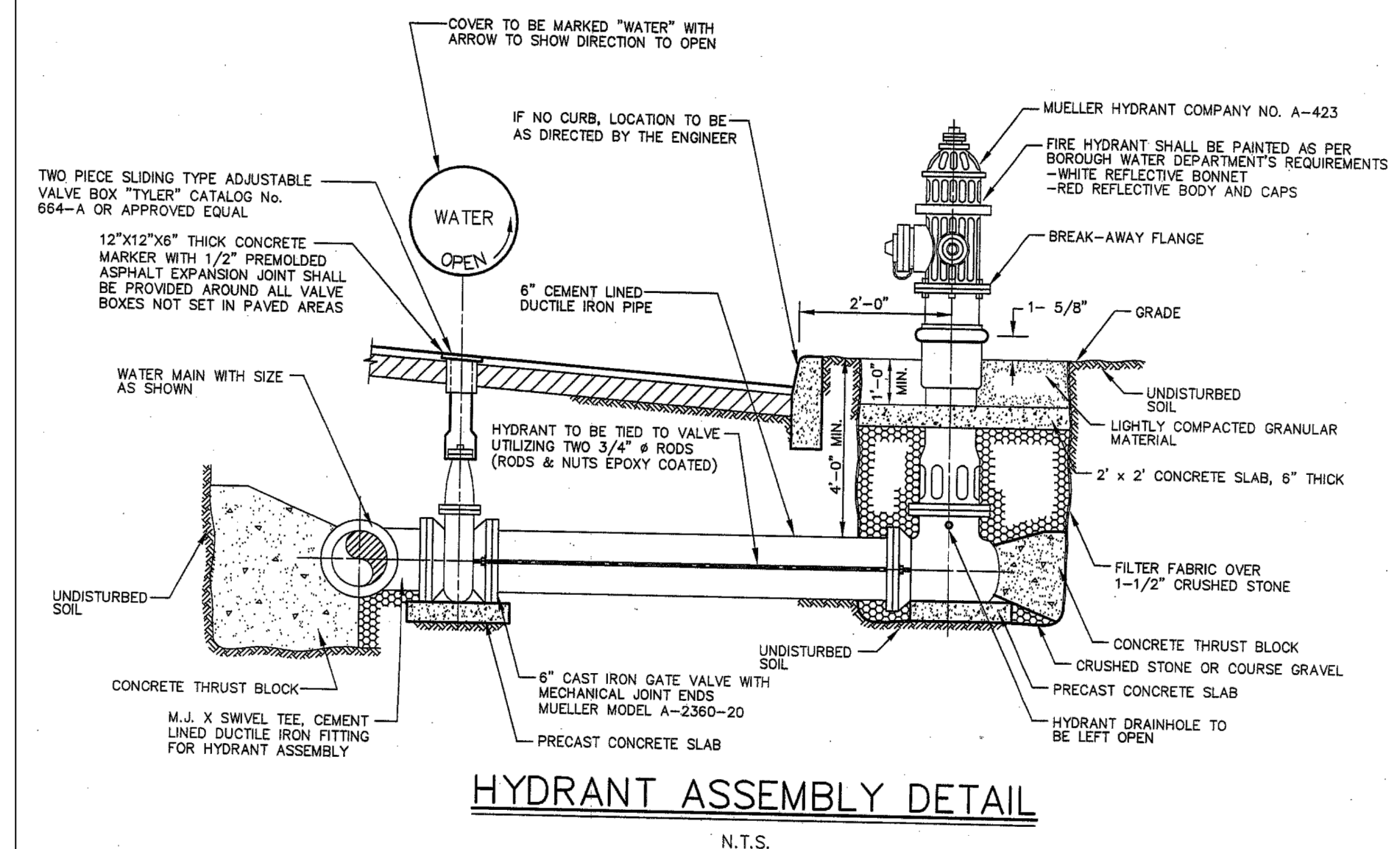
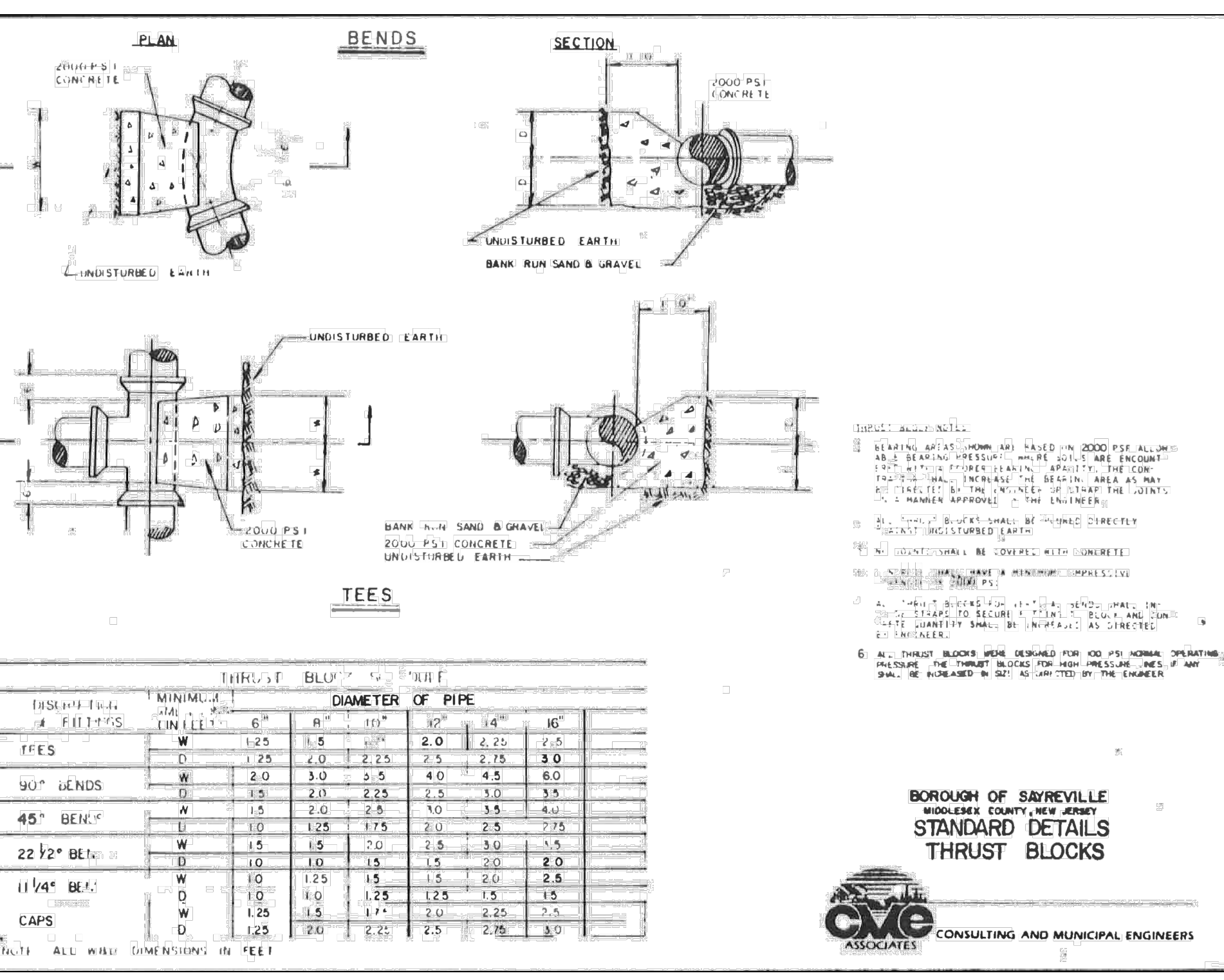
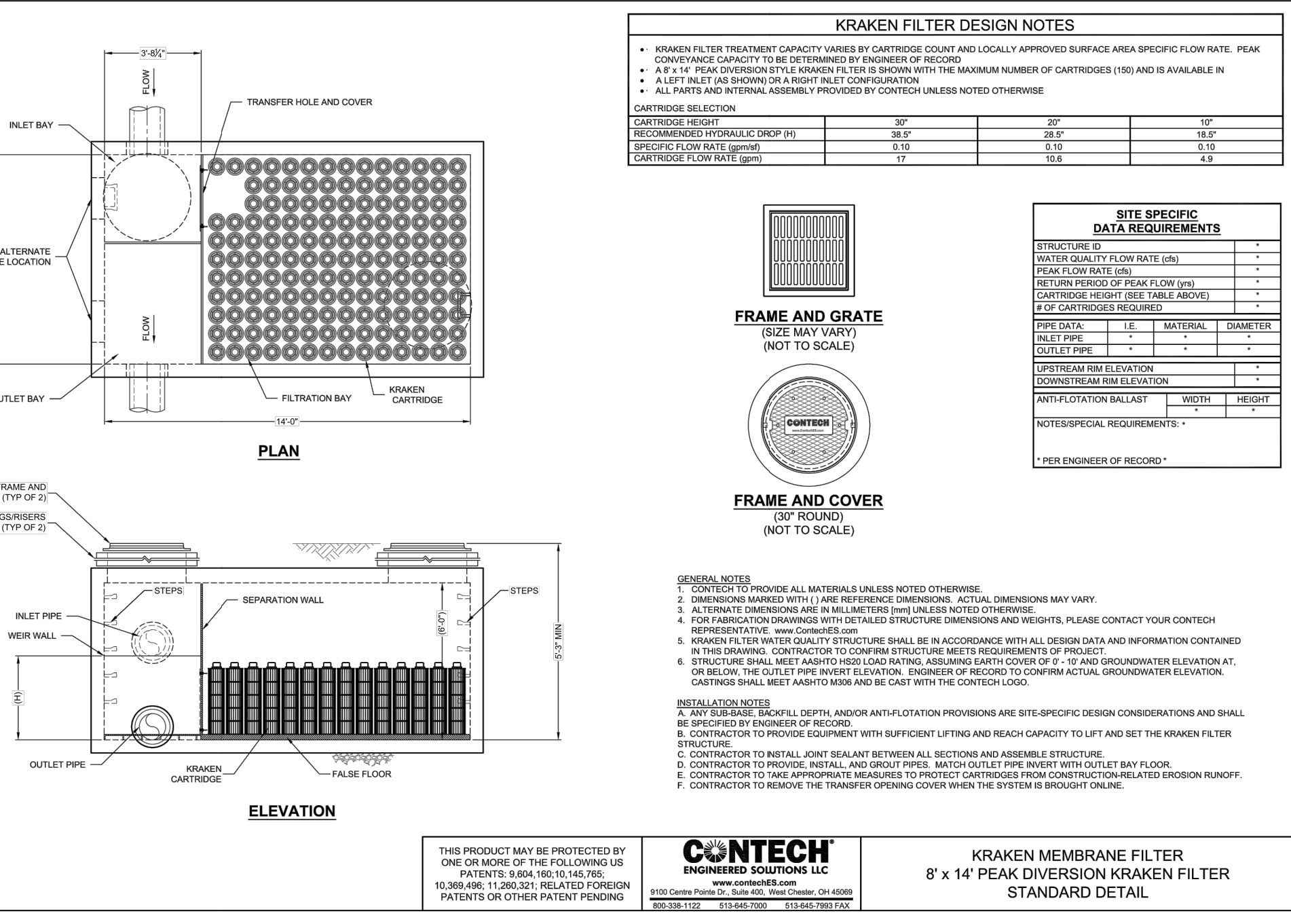
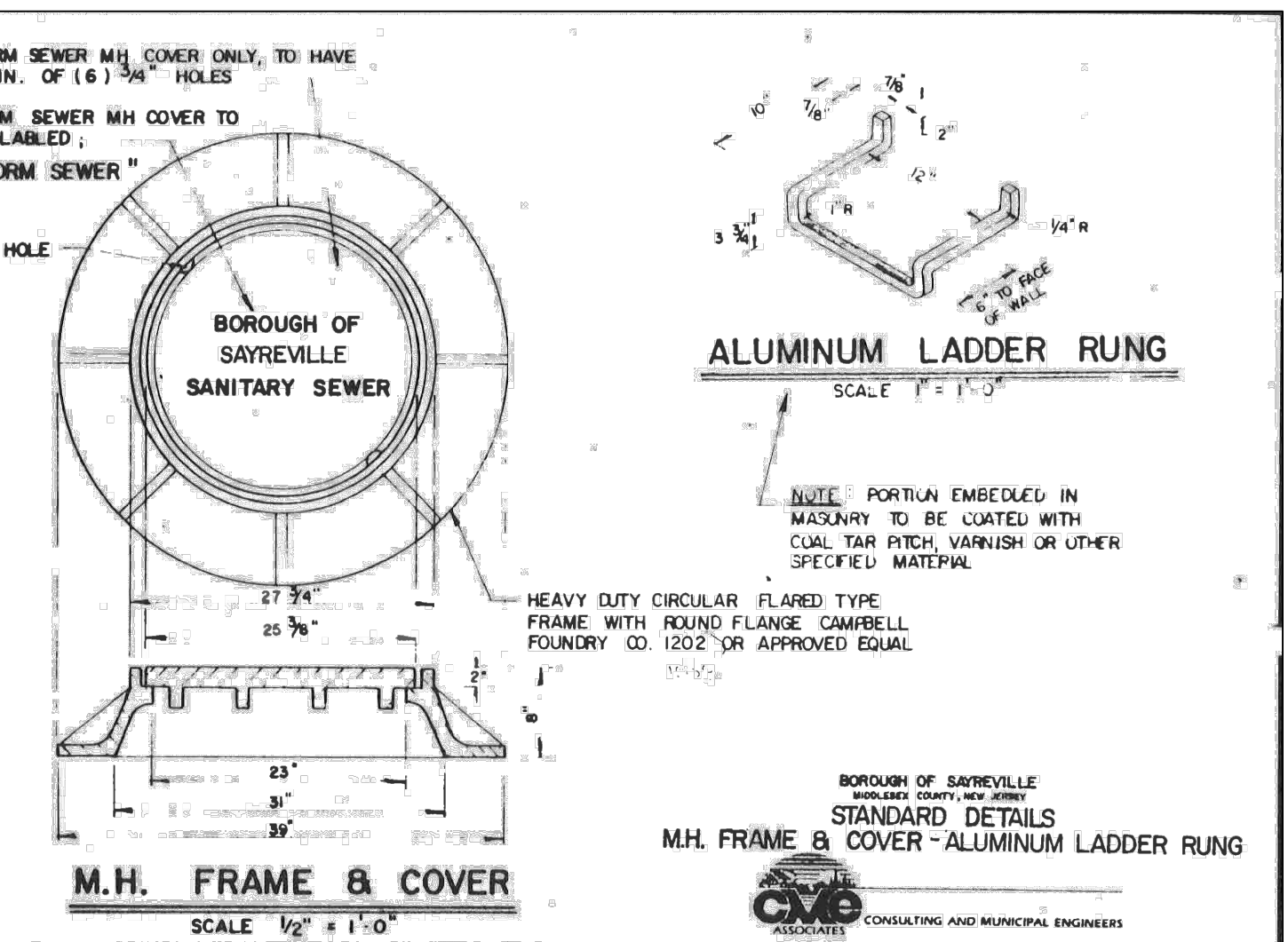
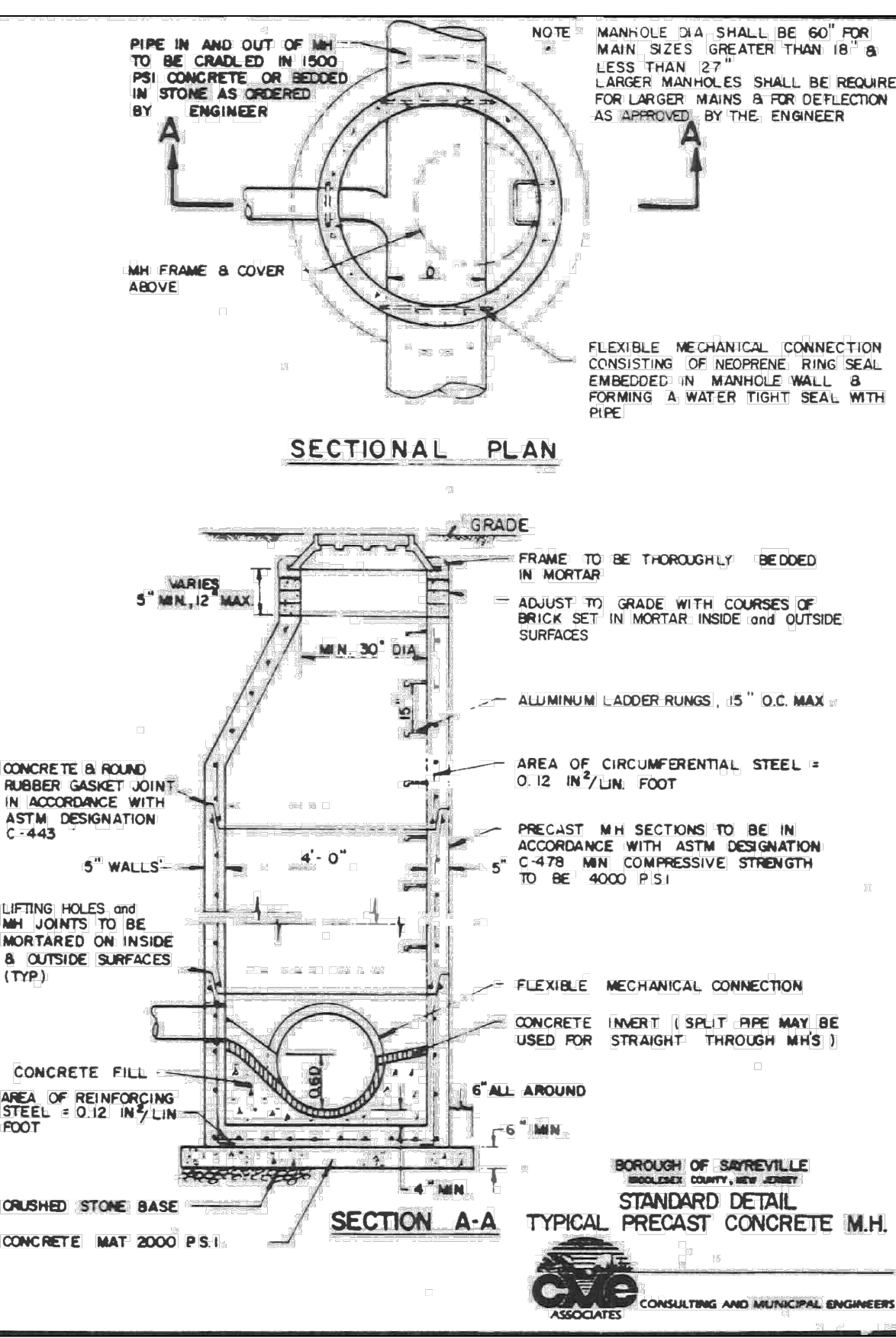
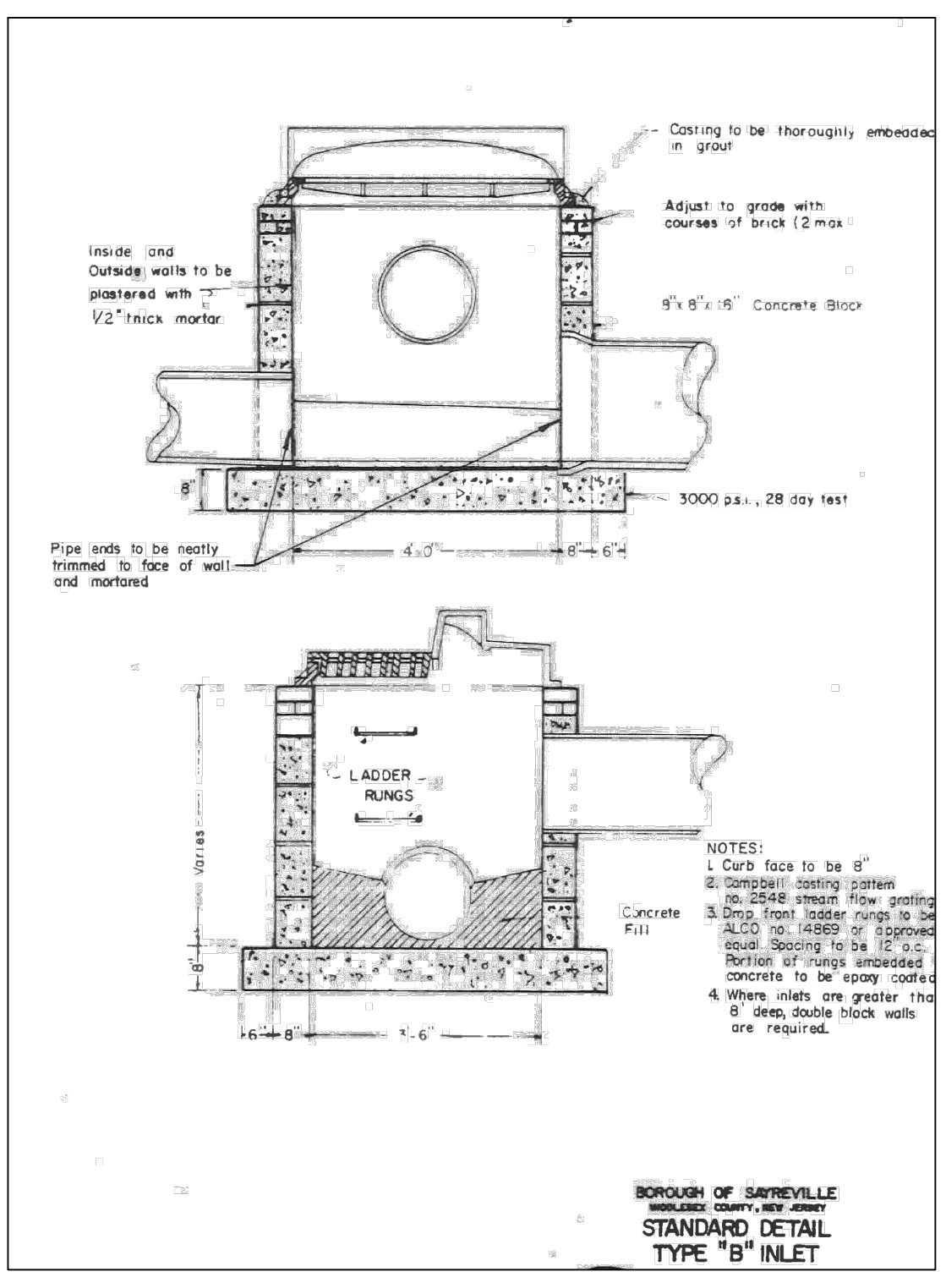
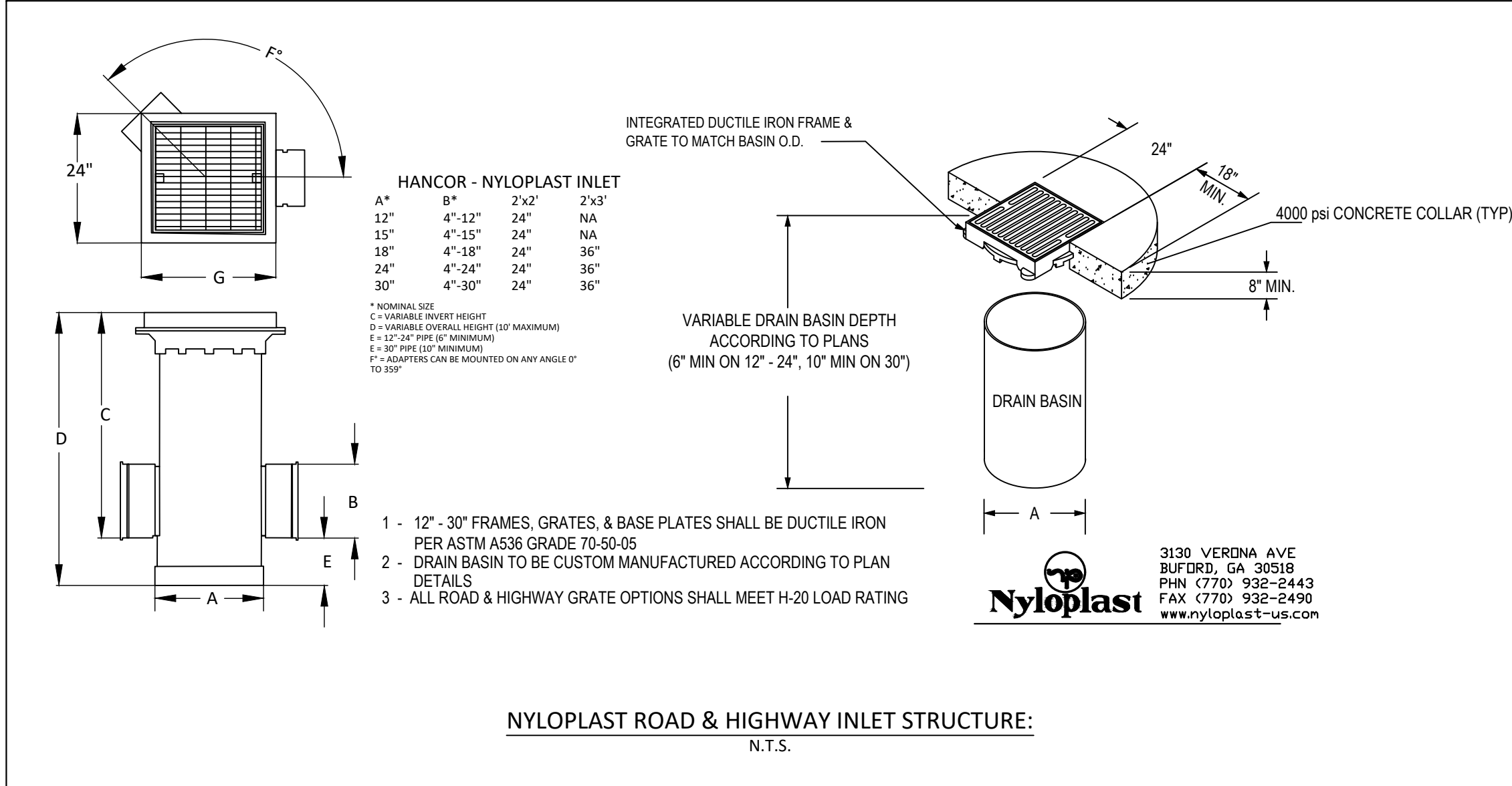
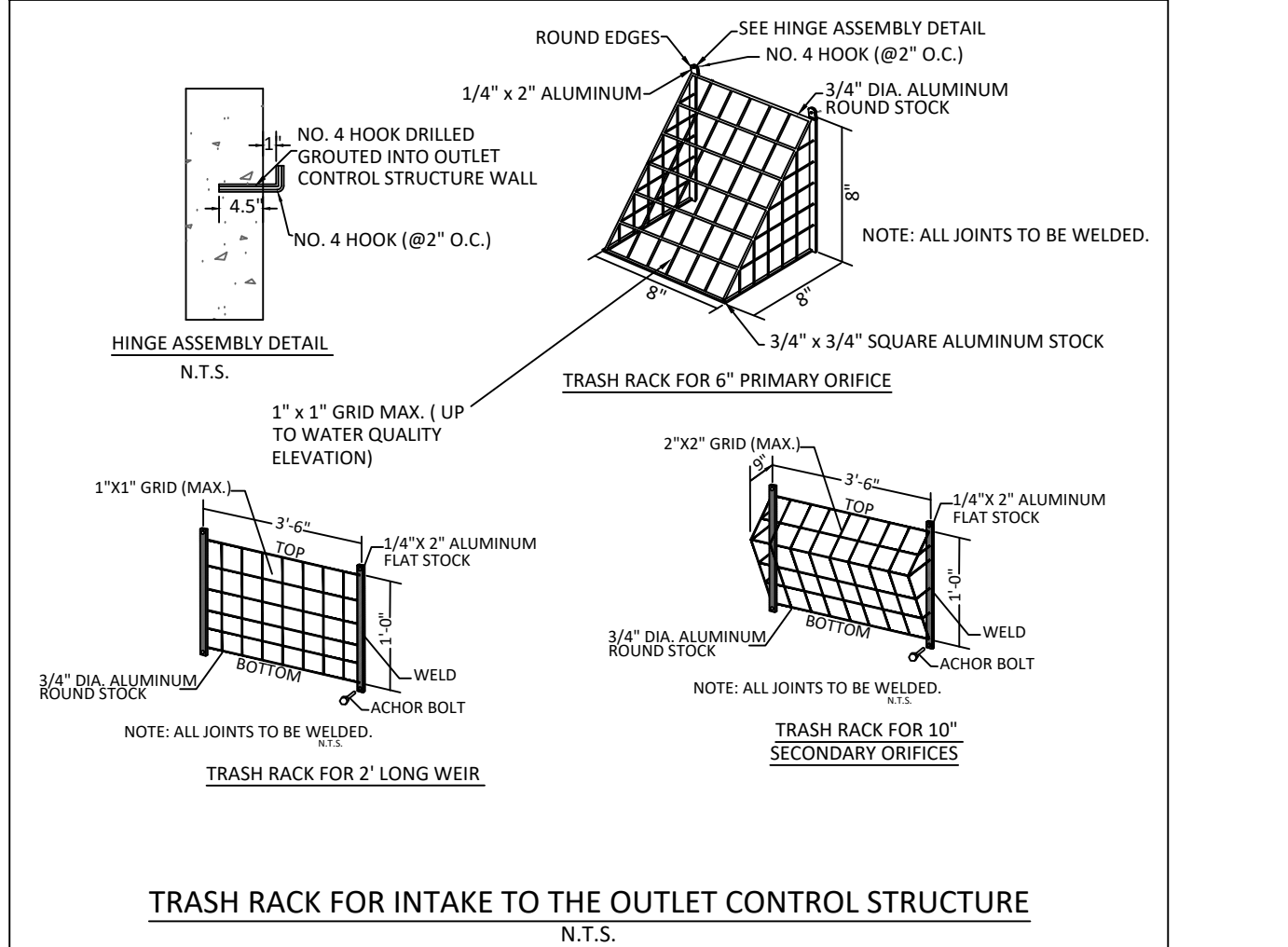
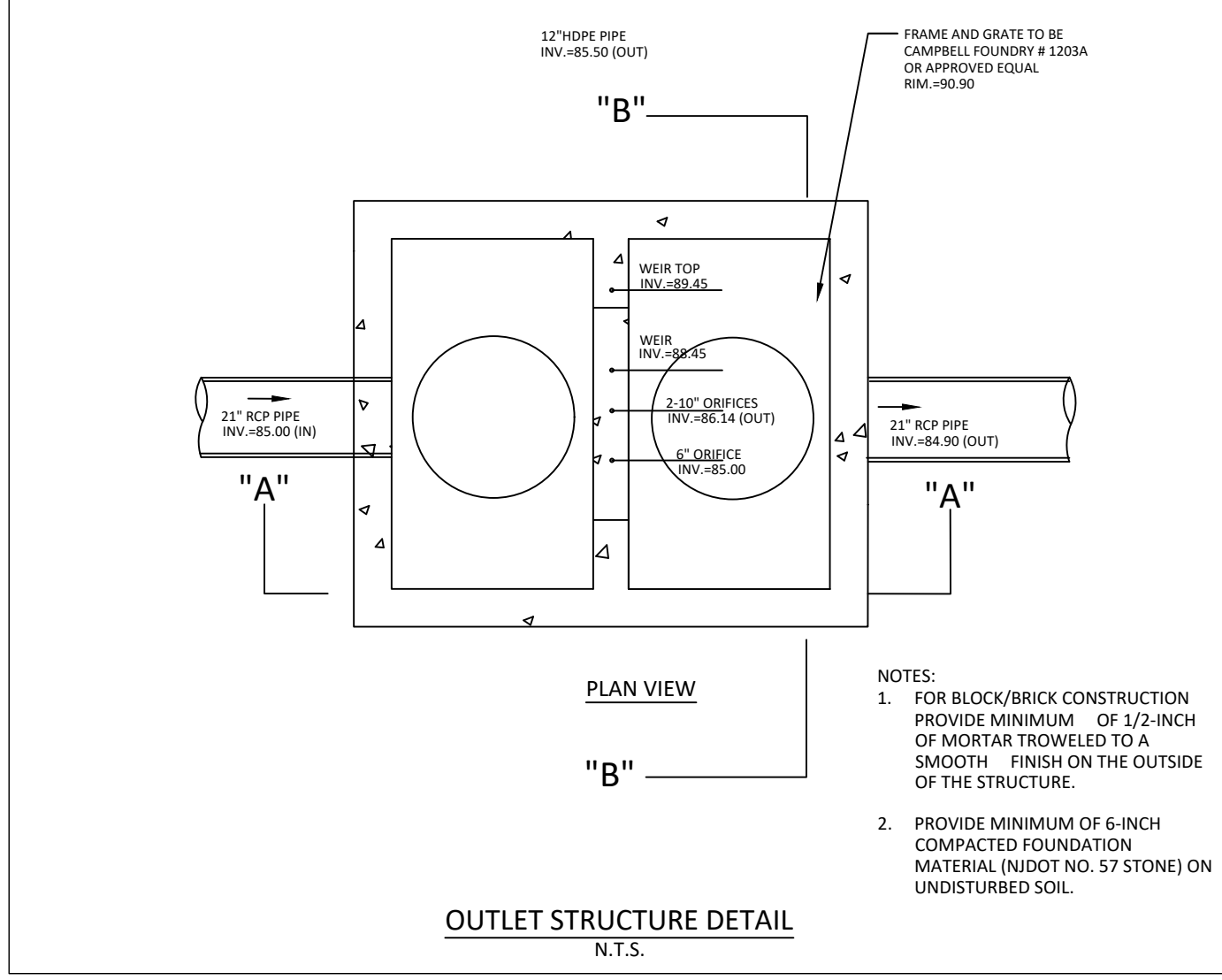
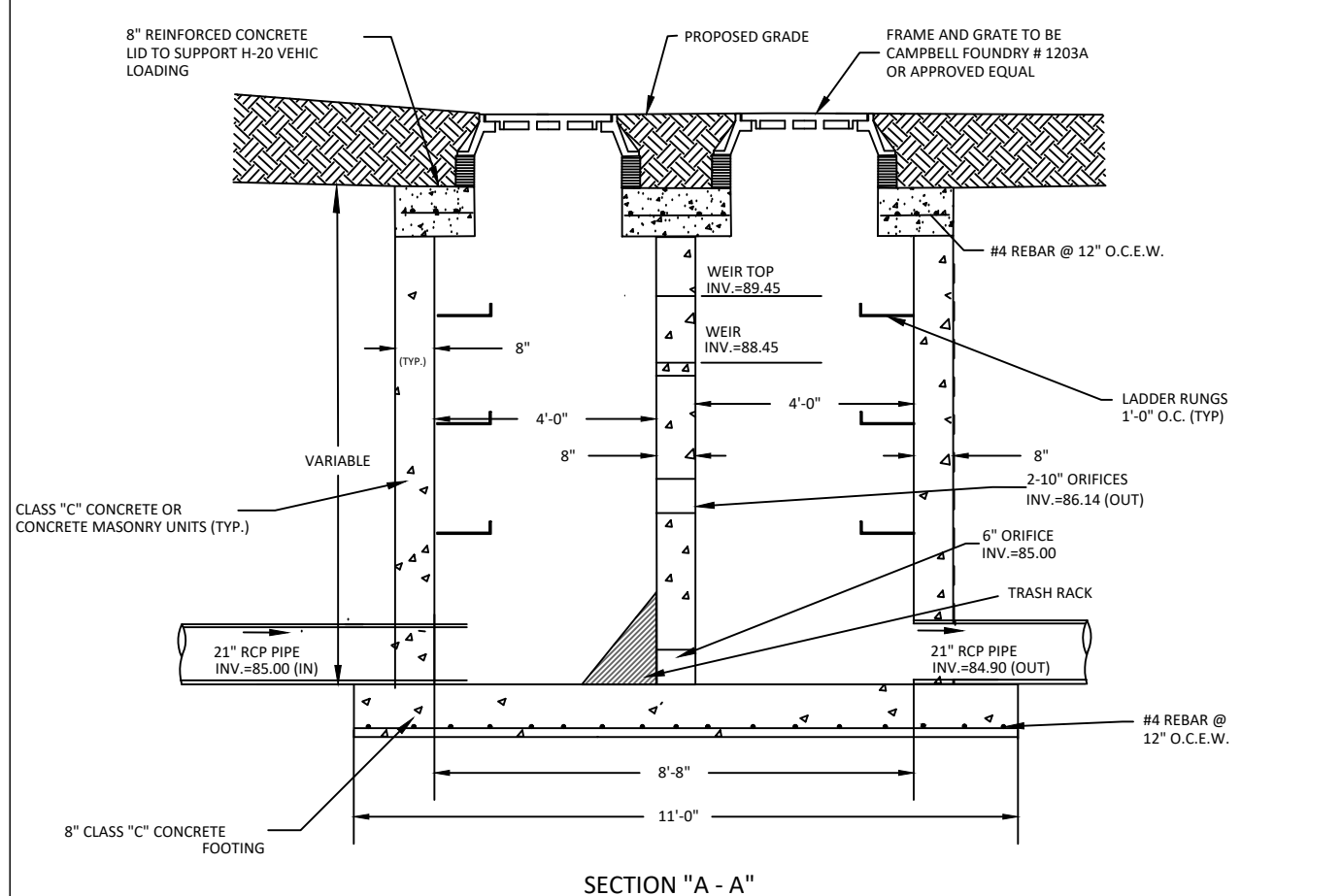
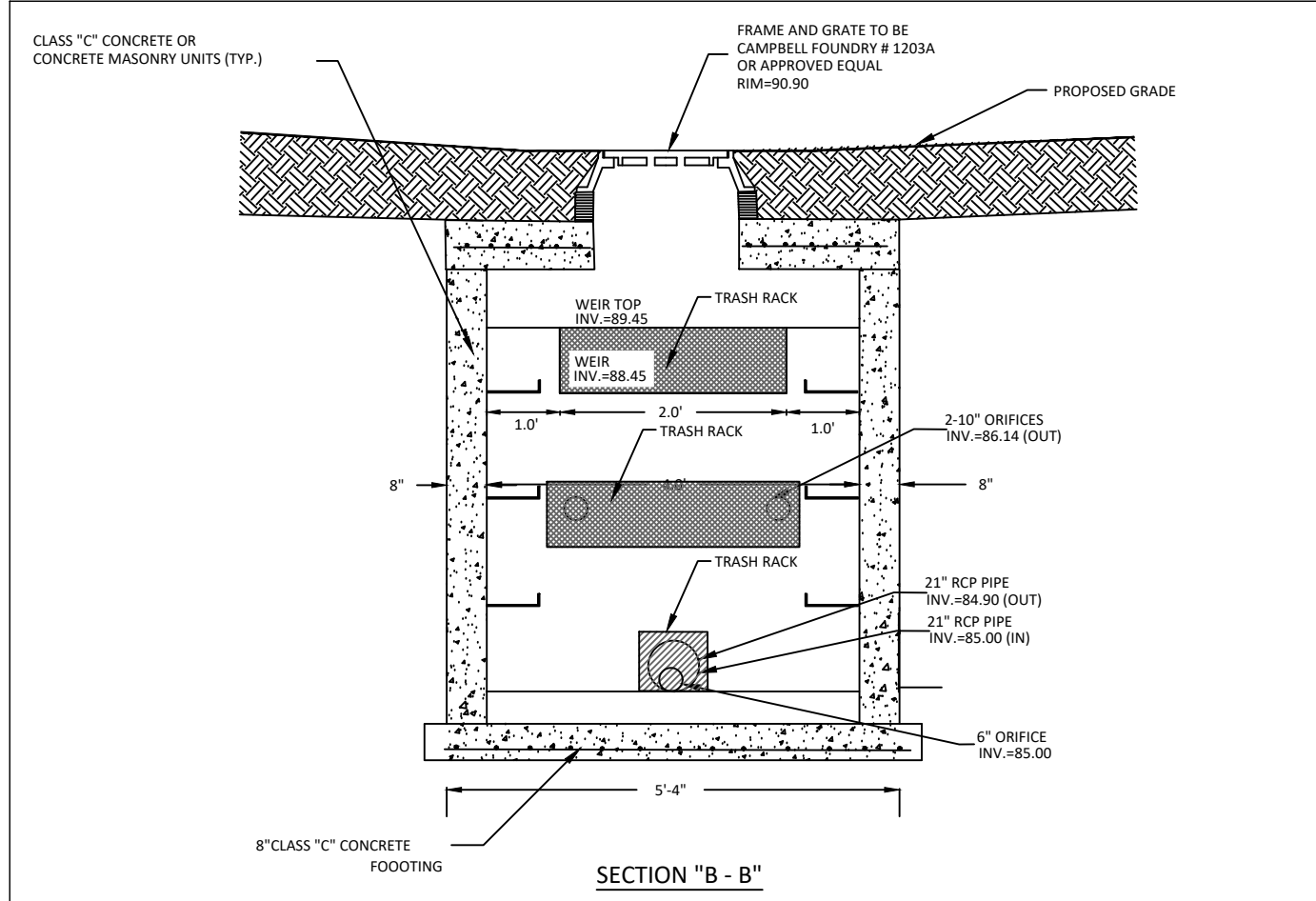
**TAX LOTS 23, 24, 25 & 28**  
 BLOCK 444.04  
 212, 214 & 216 ERNSTON ROAD  
 BOROUGH OF SAYREVILLE  
 MIDDLESEX COUNTY, NEW JERSEY

**CONSTRUCTION DETAILS**

JOB NUMBER:  
 21-1009

SCALE: AS SHOWN

**C-18**  
 SHEET 18 OF 19



**ADNAN A. KHAN, P.E., C.M.E.**  
PROFESSIONAL ENGINEER

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Pennsylvania Certificate of Authority No.: 37171554

**TAX LOTS 23, 24, 25 & 28**  
**BLOCK 444.04**  
**212, 214 & 216 ERNSTON ROAD**  
**BOROUGH OF SAYREVILLE**  
**MIDDLESEX COUNTY, NEW JERSEY**

**CONSTRUCTION DETAILS**

**JOB NUMBER:**  
21-1009

**SCALE:** AS SHOWN

**C-19**  
SHEET 19 OF 19

**DATE:** 12/20/21  
**DATE:** 12/20/21  
**DATE:** 10/25/23  
**DATE:** 12/20/21

**DESIGNED BY:** AK  
**DATE:** 12/20/21

**APPROVED BY:** AK  
**DATE:** 12/20/21

**REVISIONS**

| NO. | DESCRIPTION            | DATE     | BY |
|-----|------------------------|----------|----|
| 1   | PER REVIEW COMMENTS    | 06/13/23 | AK |
| 2   | PER ENGINEERING REVIEW | 06/13/23 | AK |

THIS PLAN IS TO BE USED FOR SOIL EROSION CONTROL PURPOSES ONLY

INSTALL SUPER SILT FENCE AROUND AREA OF DISTURBANCE (108,511.50 SF, 2.49 ACRES)

INSTALL TREE PROTECTION AS REQUIRED (TYP)

EXIST. CONC. TO BE REMOVED (TYP).

TEMPORARY STOCKPILE AREA WITH SILT FENCE

INSTALL TEMPORARY STABILIZED CONSTRUCTION ENTRANCE (TYP).

INSTALL TEMPORARY INLET PROTECTION (EXISTING AND PROPOSED) AS REQUIRED (TYP).

**PROTECT YOURSELF**  
A PHONE CALL CAN BE YOUR INSURANCE POLICY

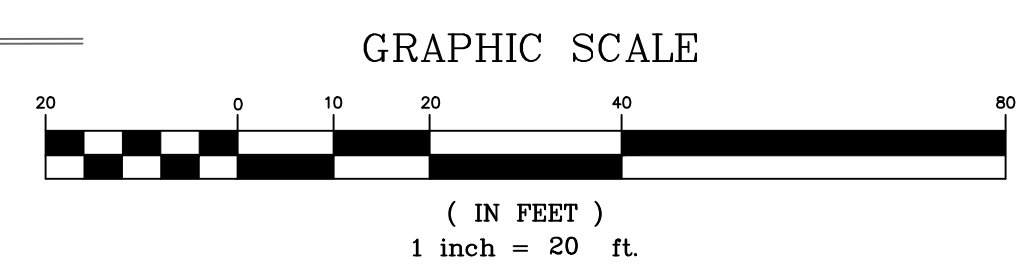
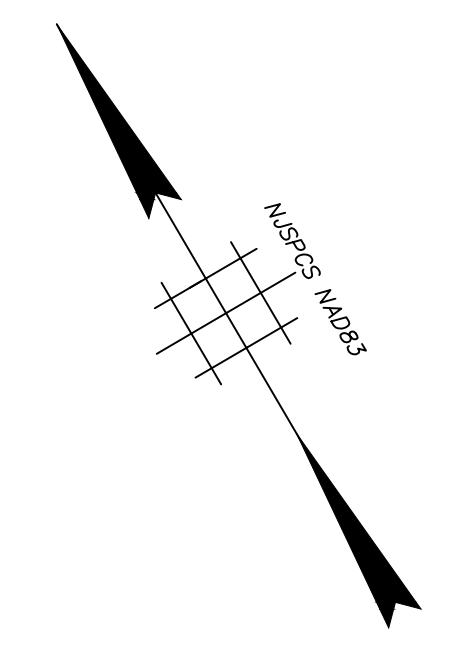
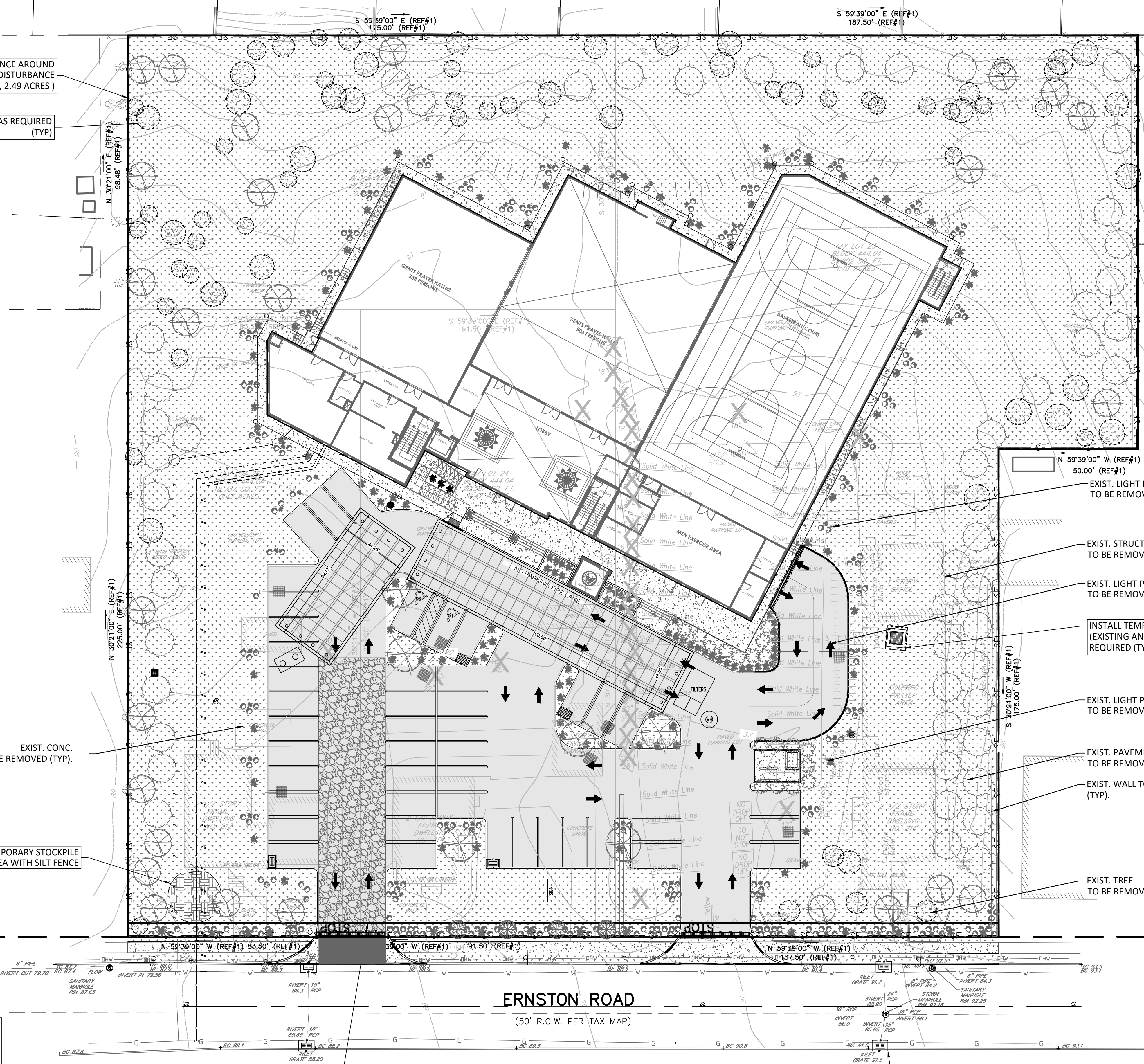


WHAT YOU DON'T KNOW CAN HURT YOU. THE STATE OF NEW JERSEY REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.

**LEGEND:**

**X** TBR - TO BE REMOVED

| LEGEND |                           |
|--------|---------------------------|
|        | - EXISTING SPOT ELEVATION |
|        | - EXISTING CONTOUR        |
|        | - PROPOSED CONTOUR        |
|        | - PROPOSED SPOT ELEVATION |



|                         |          |    |
|-------------------------|----------|----|
| DRAWN BY                | PC       | AK |
| DATE:                   | 12/20/21 | AK |
| DESIGNED BY             | AK       | AK |
| DATE:                   | 12/20/21 | AK |
| APPROVED BY             | AK       | AK |
| DATE:                   | 06/13/21 | AK |
| PER. ENGINEERING REVIEW | 1        | AK |
| REVISIONS               | NO.      | AK |
| DATE:                   |          | AK |
| BY:                     |          | AK |

ADNAN A. KHAN, P.E., C.M.E.  
PROFESSIONAL ENGINEER  
*Adnan A. Khan*  
DATE: 10/25/23  
N.J. LICENSE NO. 39812 P.A. LICENSE NO. 4965E  
N.Y. LICENSE NO. 08645 M.D. LICENSE NO. 41803

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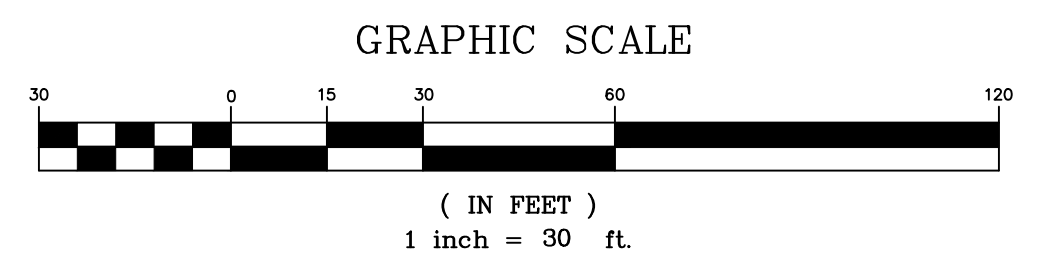
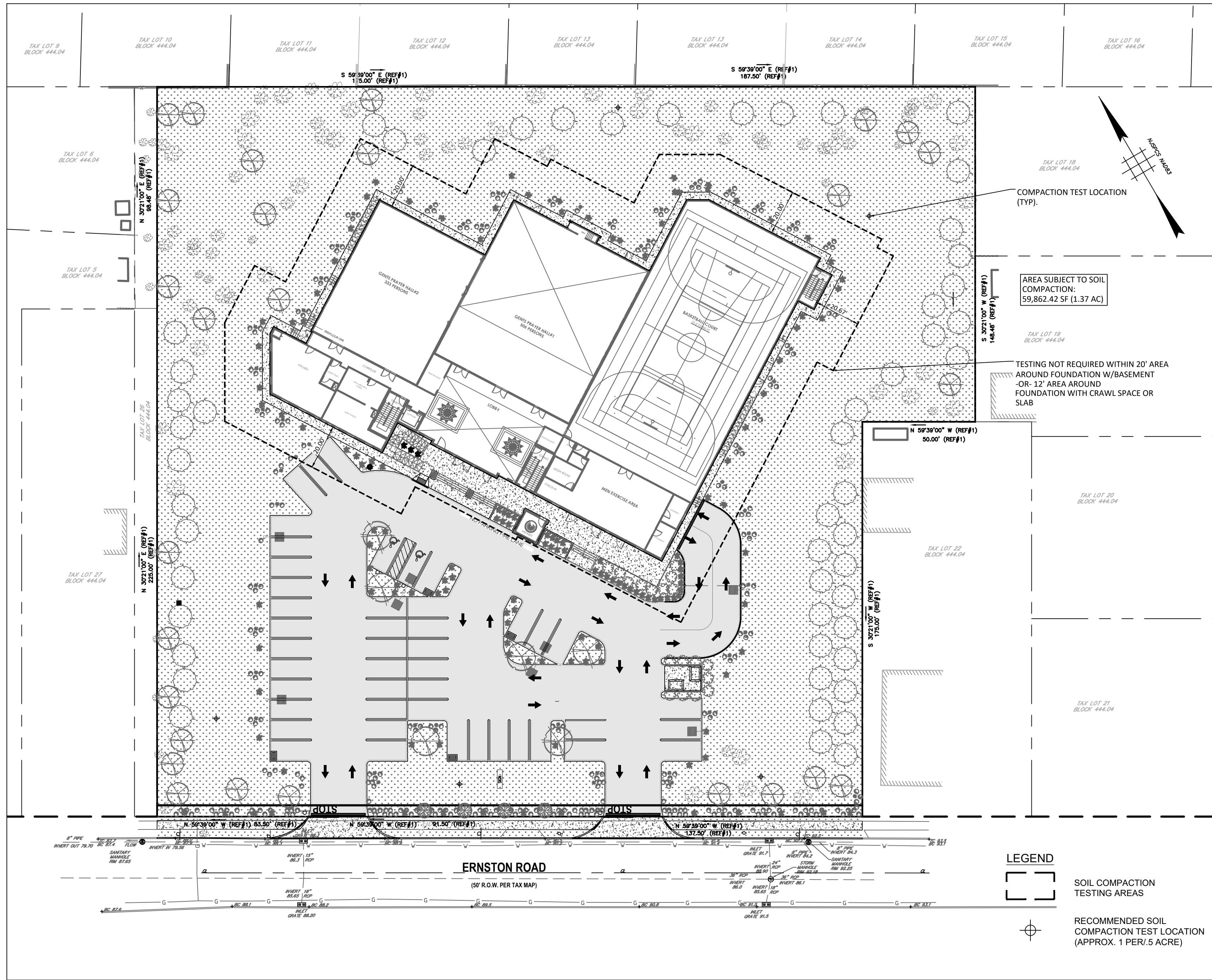
TAX LOTS 23, 24, 25 & 28 BLOCK 444.04  
212, 214 & 216 ERNSTON ROAD  
BOROUGH OF SAYREVILLE  
MIDDLESEX COUNTY, NEW JERSEY  
**SOIL EROSION AND SEDIMENT CONTROL PLAN**

JOB NUMBER: 21-1009  
SCALE: AS SHOWN

**S-01**  
SHEET 1 OF 4







**PROTECT YOURSELF**  
A PHONE CALL  
CAN BE YOUR INSURANCE POLICY



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SURFACE ANYWHERE IN THE STATE.

**SOIL DE-COMPACTION AND TESTING REQUIREMENTS**

**A. SOIL COMPACTION TESTING REQUIREMENTS CONTROL NOTES**

- SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
- AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY DENOTED ON THE CERTIFIED SOIL EROSION CONTROL PLAN.
- COMPACTION TESTING LOCATIONS ARE DENOTED ON THE PLAN. LOCATION ID'S SHALL BE USED TO COMPLETE THE COMPACTION REMEDIATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT. THIS FORM MUST BE FILLED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT.
- IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS (SEE DETAILS BELOW), THE CONTRACTOR/ OWNER SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA DENOTED ON THE PLAN (EXCLUDING EXEMPT AREAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

**B. COMPACTION TESTING METHODS**

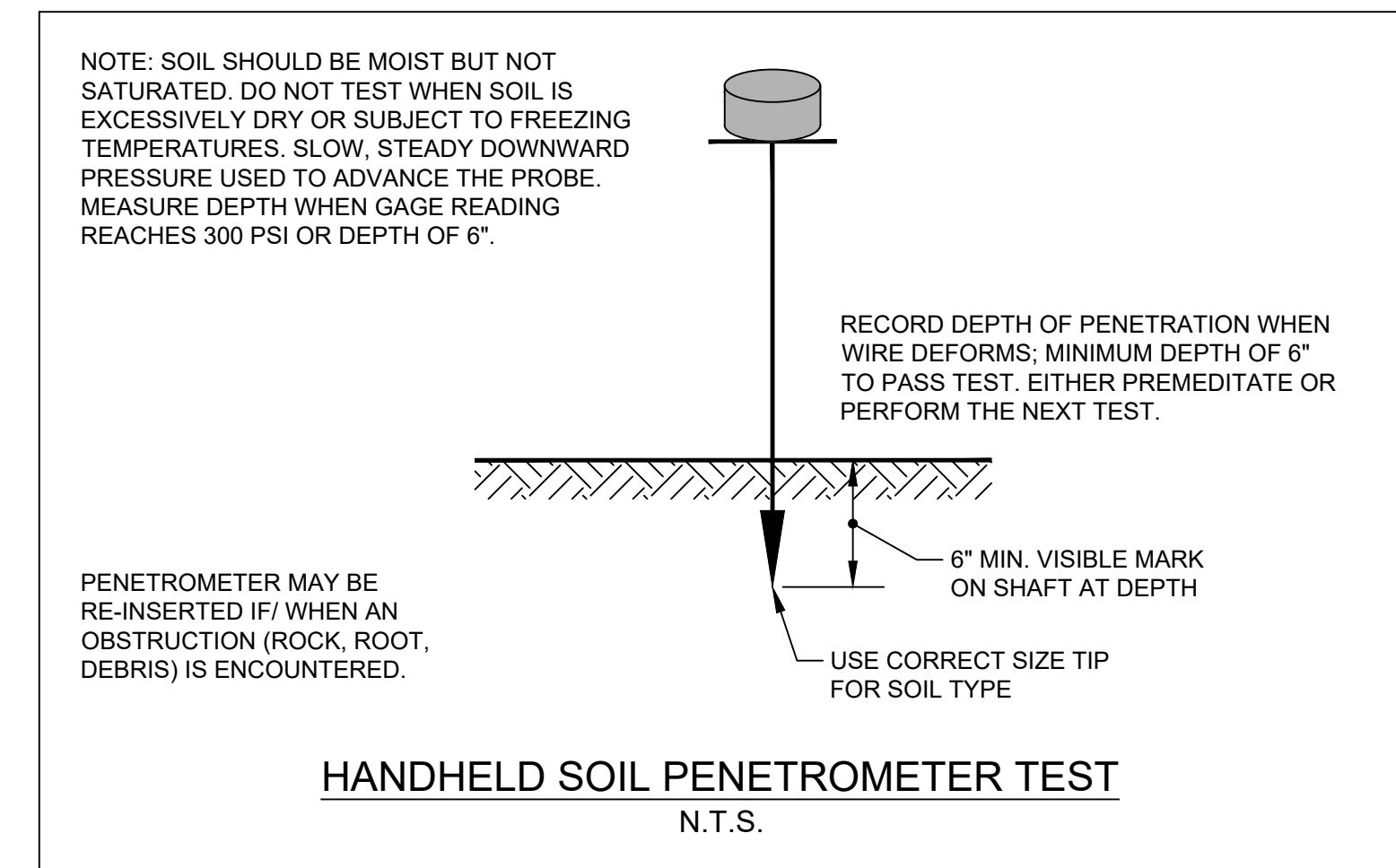
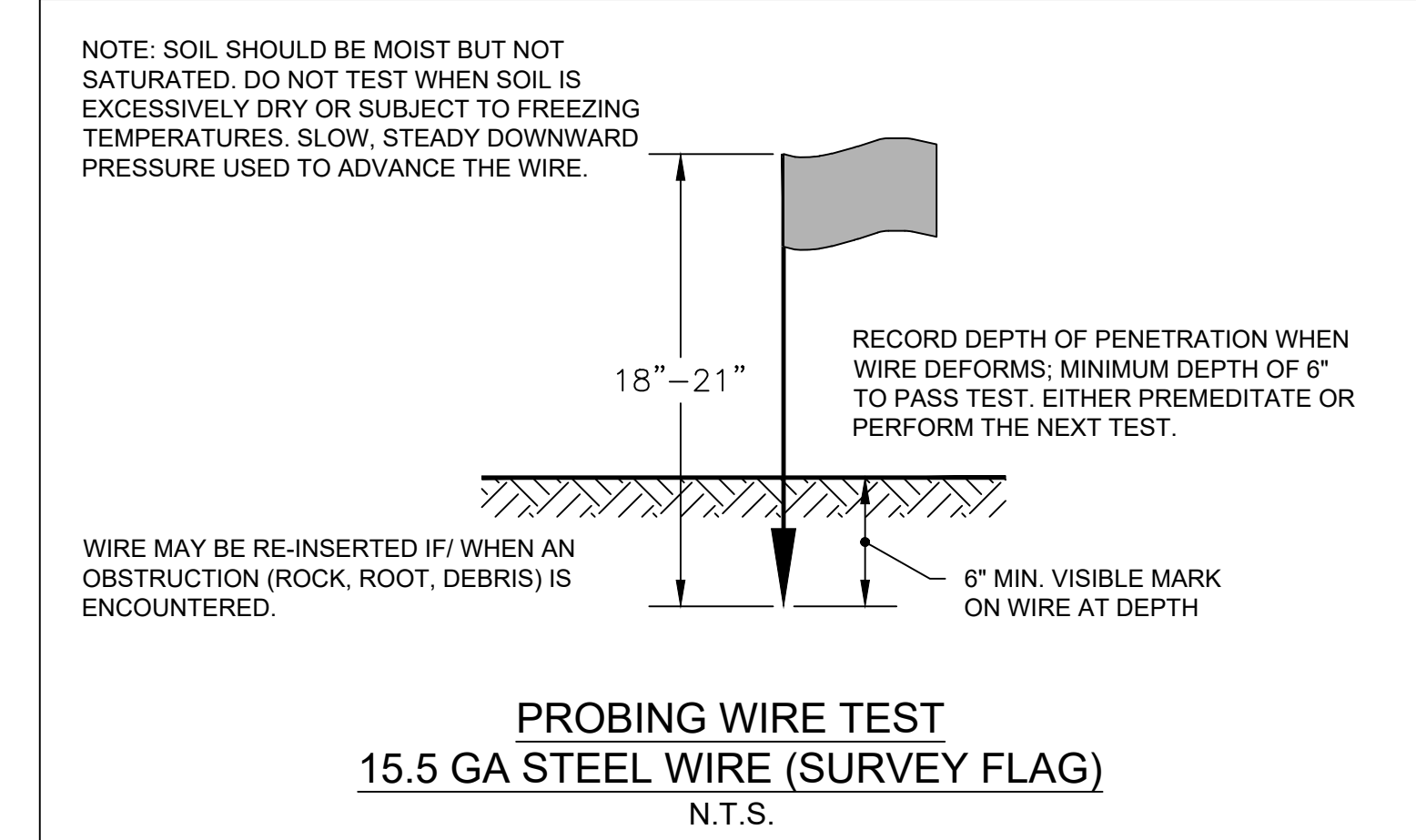
- PROBING WIRE TEST (SEE DETAIL).
- HAND-HELD PENETROMETER TEST (SEE DETAIL).
- TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED).
- NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED).

**NOTE:** ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.

**7. SOIL COMPACTION TESTING IS NOT REQUIRED IF/ WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/ TILLAGE (6" MINIMUM DEPTH) OR SIMILAR) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.**

**C. PROCEDURES FOR SOIL COMPACTION MITIGATION**

- PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
- RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/ TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLE, IRRIGATION SYSTEMS, ETC.). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER MAY BE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.



**STANDARD FOR TOPSOILING**

**DEFINITION**

TOPSOILING ENTAILS THE DISTRIBUTION OF SUITABLE QUALITY SOIL ON AREAS TO BE VEGETATED.

**PURPOSE**

TO IMPROVE THE SOIL MEDIUM FOR PLANT ESTABLISHMENT AND MAINTENANCE.

**WATER QUALITY ENHANCEMENT**

GROWTH AND ESTABLISHMENT OF WINDROW VEGETATIVE COVER IS FACILITATED BY TOPSOIL, PREVENTING SOIL LOSS BY WIND AND RAIN OFFSITE AND INTO STREAMS AND OTHER STORMWATER CONVEYANCES.

**WHERE APPLICABLE**

TOPSOIL SHALL BE USED WHERE SOILS ARE TO BE DISTURBED AND WILL BE REVEGETATED.

**METHODS AND MATERIALS**

- MATERIALS**
  - TOPSOIL SHOULD BE FRIABLE\*, LOAMY\*\*, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0.5 MILLIMHOS MAY DESICCATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). IMPORTED TOPSOIL SHALL HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER MAY BE RAISED BY ADDITIVES.
  - TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC MATTER, SOLUBLE SALTS AND PH LEVEL.
- STRIPPING AND STOCKPILING**
  - FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
  - STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
  - WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING PH TO APPROXIMATELY 6.5.
  - A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.
  - STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
  - STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN. SEE STANDARDS FOR PERMANENT (PG. 4-1) OR TEMPORARY (PG. 7-1) VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.
- SITE PREPARATION**
  - GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE. TIME IS OF THE ESSENCE.
  - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. SEE THE STANDARD FOR LAND GRADING, PG. 19-1.
  - AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
  - PRIOR TO TOPSOILING, THE SUBSOIL SHALL BE IN COMPLIANCE WITH THE STANDARD FOR LAND GRADING, PG. 19-1.
  - EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
- APPLYING TOPSOIL**
  - TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY (SEE GLOSSARY).
  - A UNIFORM APPLICATION TO AN AVERAGE DEPTH OF 5.0 INCHES, MINIMUM OF 4 INCHES. FIRMED IN PLACE IS REQUIRED. ALTERNATIVE DEPTH MAY BE CONSIDERED WHERE SPECIAL REGULATORY AND/ OR INDUSTRY DESIGN STANDARDS ARE APPROPRIATE SUCH AS ON GOLF COURSES, SPORTS FIELDS, LANDFILL CAPPING, ETC.. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG. 1-1).
  - PURSUANT TO THE REQUIREMENTS IN SECTION 7 OF THE STANDARD FOR PERMANENT VEGETATIVE STABILIZATION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PERMANENT VEGETATIVE COVER BECOMES ESTABLISHED ON AT LEAST 80% OF THE SOIL TO BE STABILIZED WITH VEGETATION. FAILURE TO ACHIEVE THE MINIMUM COVERAGE MAY REQUIRE ADDITIONAL WORK TO BE PERFORMED BY THE CONTRACTOR TO INCLUDE SOME OR ALL OF THE FOLLOWING: SUPPLEMENTAL SEEDING, RE-APPLICATION OF LIME AND FERTILIZERS, AND/ OR THE ADDITION OF ORGANIC MATTER (I.E. COMPOST) AS TOP DRESSING. SUCH ADDITIONAL MEASURES SHALL BE BASED ON TESTS SUCH AS THOSE OFFERED BY RUTGERS COOPERATIVE EXTENSION SERVICE OR OTHER APPROVED LABORATORY FACILITIES QUALIFIED TO TEST SOIL SAMPLES FOR AGRONOMIC PROPERTIES.

\* FRIABLE MEANS EASILY CRUMBLES IN THE FINGERS, AS DEFINED IN MOST SOILS TEXTS.  
\*\* LOAMY MEANS TEXTURE GROUPS CONSISTING OF COARSE LOAMY SANDS, SANDY LOAM, FINE AND VERY FINE SANDY LOAM, LOAM, SILT LOAM, CLAY LOAM, SANDY CLAY LOAM AND SILTY CLAY LOAM TEXTURES AND HAVING LESS THAN 35% COARSE FRAGMENTS (PARTICLES LESS THAN 2mm IN SIZE) AS DEFINED IN THE GLOSSARY OF SOIL SCIENCE TERMS, 1996, SOIL SCIENCE SOCIETY OF AMERICA.

|  |  |
|--|--|
| <p><b>ADNAN A. KHAN, P.E., C.M.E.</b><br/>PROFESSIONAL ENGINEER</p> <p><i>Adnan A. Khan</i><br/>DATE: 12/20/21</p> <p>N.J. LICENSE NO. 39812 P.A. LICENSE NO. 40862<br/>N.Y. LICENSE NO. 08645 M.D. LICENSE NO. 4180</p> | <p><b>AWZ ENGINEERING, INC.</b><br/>ENGINEERS • SCIENTISTS • CONSULTANTS<br/>Main Office: 150 River Road, Suite B3, Montville, NJ 07045<br/>Pennsylvania Office: Scranton, PA 18504<br/>Tel: 973-588-7080 Fax: 973-588-7079<br/>www.awzengineering.com e-mail: info@awzengineering.com<br/>New Jersey Certificate of Authorization No.: 24GA28118400<br/>Pennsylvania Certificate of Authority No.: 37711554</p> |
| <p><b>TAX LOTS 23, 24, 25 &amp; 28</b><br/>BLOCK 444.04<br/>212, 214 &amp; 216 ERNSTON ROAD<br/>BOROUGH OF SAYREVILLE<br/>MIDDLESEX COUNTY, NEW JERSEY</p>   | <p><b>SOIL MANAGEMENT AND PREPARATION PLAN</b></p>   |
| <p><b>JOB NUMBER:</b><br/>21-1009</p>  | <p><b>SCALE:</b> AS SHOWN</p>  |
| <p><b>S-04</b></p>   | <p><b>SHEET 4 OF 4</b></p>   |

**THIS PLAN IS TO BE USED FOR SOIL EROSION CONTROL PURPOSES ONLY**