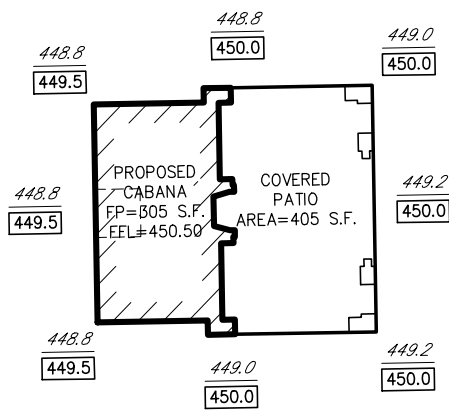


FENCE NOTES

	REQUIRED	PROVIDED
111-4C(2) MIN. DIST. TO CURB LINE	10 FT.	10.00 FT.
111-4D(2) MAX. HEIGHT OF FENCE (MORE THAN 50% OPEN)	6 FT.	6.00 FT.
111-4D(2) MAX. HEIGHT OF FENCE (LESS THAN 50% OPEN)	4 FT.	N/A
111-4D(3) MAX. HEIGHT OF CHEEK WALL (VARIES FROM HEIGHT OF PIER TO FENCE)	6 FT.	6.00 FT.
111-4D(4) MAX. PIER HEIGHT (1 FT. ABOVE FENCE, 9.5 FT. MAX.)	7 FT.	6.00 FT.
111-4D(5) MAX. GATE HEIGHT (MORE THAN 50% OPEN)	8 FT.	6.00 FT.
111-4D(6) LIGHTS ON PIERS MAX. HEIGHT	9.5 FT.	9.50 FT.
111-4E MAX. LENGTH OF CHEEK WALL (WIDTH OF DRIVEWAY)	16 FT.	12.00 FT.
111-4F MIN. SPACING OF PIERS (< TO >)	20 FT.	20.50 FT.
111-4F MAX. HORIZ. DIMENSION OF PIER (12.5% OF SPACING)	2.5 FT.	2.50 FT.
111-4G MIN. SETBACK OF GATE FROM ROADWAY (< 35 MPH)	20 FT.	21.50 FT.

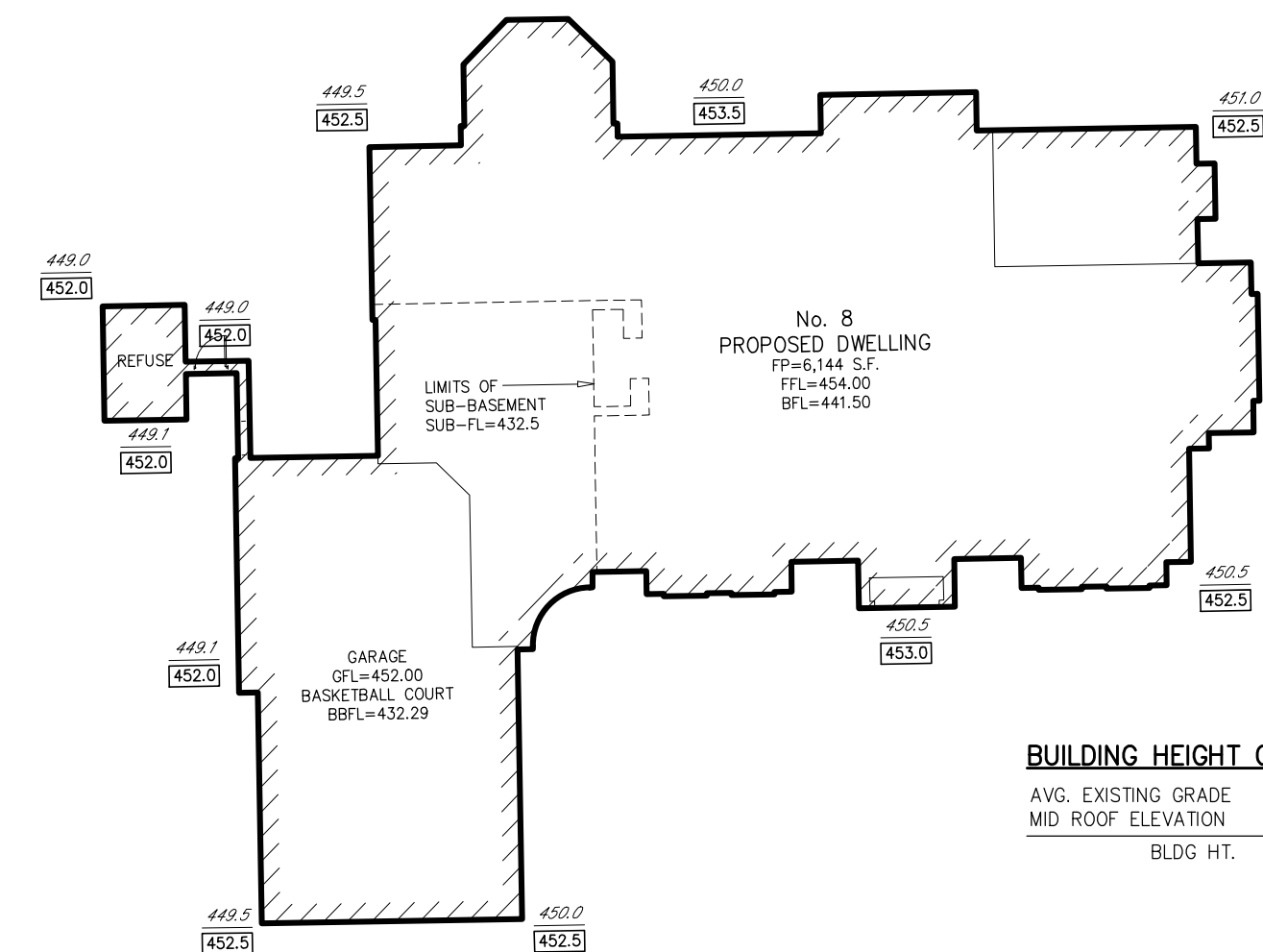
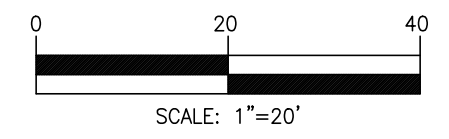


CABANA HEIGHT CALC'S

AVG. EXISTING GRADE EL. 448.95
MID ROOF ELEVATION EL. 453.95
BLDG HT. 15.00 FT.

AVG. PROPOSED GRADE = EL. 449.81
AVG. EXISTING GRADE = EL. 448.95

CABANA HEIGHT SCHEMATIC

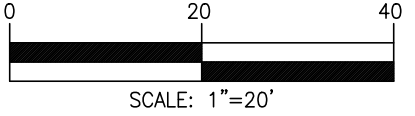


BUILDING HEIGHT CALC'S

AVG. EXISTING GRADE EL. 449.75
MID ROOF ELEVATION EL. 484.75
BLDG HT. 35.00 FT.

AVG. PROPOSED GRADE = EL. 452.45
AVG. EXISTING GRADE = EL. 449.75

BUILDING HEIGHT SCHEMATIC



ORDNANCE (STORIES)

FPL = 454.00
EL. 448.00
6.00'

BUILDING STORY CALC'S

AS PER ORDINANCE

TOTAL PERIMETER OF DWELLING = 518 L.F.
PERIMETER LOWER THAN EL. 448.00 = 0 L.F.
0 L.F./518 L.F. x 100 = 0.00% < 50%
DWELLING IS 2 STORY.

THE ESPLANADE

STONE TOWER DRIVE

ROBERT J. MUELLER
PROFESSIONAL LAND SURVEYOR
N.J. LIC. NO. 37206

MICHAEL J. HUBSCHMAN P.E., P.P.
PROFESSIONAL ENGINEER AND PLANNER
N.J.P.E. NO. 29497 N.J.P.P. NO. 3200

HUBSCHMAN ENGINEERING, P.A.
ENGINEERS - PLANNERS - SURVEYORS
263A S. WASHINGTON AVE., BERGENFIELD, NJ 07621
201-384-5666

DRAWN BY: B.W.
CHKD BY: MJH
SCALE: 1"=20'
DRAWING NO. 3972-2
REV. #

ZONING NOTES

ZONE R-A

	REQUIREMENT	PROVIDED
MIN. LOT AREA	87,120 S.F.	87,120.64 S.F.
MIN. WIDTH	250 FT.	254.72 FT.
MIN. FRONTAGE	200 FT.	250.16 FT.
MIN. FRONT YARD	75 FT.	79.29 FT.
MIN. SIDE YARD	50 FT.	52.71 FT.
MIN. REAR YARD	100 FT.	173.24 FT.
MAX. BLDG. COVERAGE	9%	7.05%
MAX. IMPROVED LOT COVERAGE	25%	23.32%
MAX. BUILDING HEIGHT	2 1/2 STY./35 FT.	2 STY./35.00 FT.
220-150 MAX. L.F. GARAGE DOOR	40 FT.	36.0 FT.
220-150 MAX. NO. OF GARAGE DOORS	4	4
220-98 CONSTRUCTION ACTIVITY WITHIN BUFFER ZONE	NOT PERMITTED	NOT PROPOSED

ACCESSORY STRUCTURES

	REQUIREMENT	POOL PROVIDED	CABANA PROVIDED
MIN. SIDE YARD	30 FT.	70.85 FT.	34.62 FT.
MIN. REAR YARD	30 FT.	90.63 FT.	105.56 FT.
LOCATED IN REAR	YES	YES	YES
POOL - MAX. 3' OR MORE ABOVE GRADE	30%	0%	N/A
POOL - HEIGHT MORE THAN 5' ABOVE NATURAL GRADE	0%	0%	N/A
ACC. STRCT. HEIGHT	15 FT.	N/A	15.00 FT.

GENERAL NOTES

- ELEVATIONS BASED ON NGVD 1929.
- LOT AREA: 87,120.64 S.F. (2.00 AC.)
- 1"=20' SCALE DENOTES TREE TO BE REMOVED. (SEE SHEET 3972-5)
- THERE ARE NO WATER COURSES OR WETLANDS WITHIN 300 FT. OF THE SITE.
- OWNER OF RECORD: 8 STONE TOWER DRIVE, LLC
1500 GARDEN STREET, APT. 10L
HOBOKEN, NJ 07030

REFERENCES

- V BOOK 1657, PAGE 2468.
- A CERTAIN MAP ENTITLED "FINAL SUBDIVISION PLAN, SECTION IV, RIO VISTA-ALPINE, IN THE BOROUGH OF ALPINE, BERGEN COUNTY, NEW JERSEY, FOR RIO VISTA ASSOCIATES, INC." FILED IN THE B.C.C.O. AS MAP NO. 8019.
- BOROUGH OF ALPINE TAX MAPS.

BUILDING COVERAGE CALCULATIONS

FOOTPRINT 6,144 S.F./87,120.64 S.F. = 7.05%

IMPROVED COVERAGE CALCULATIONS

BLDG. COVERAGE	6,144 S.F.
CABANA	305 S.F.
COVERED PATIO	405 S.F.
DRIVEWAY	5,988 S.F.
POOL & SPA	1,428 S.F.
POOL PATIO	2,478 S.F.
FRONT WALKS & STEPS	255 S.F.
REAR PATIO, BBQ, & STEPS	2,849 S.F.
REAR WALKS	155 S.F.
WALLS & COLUMNS	307 S.F.
TOTAL	20,314 S.F./87,120.64 S.F. = 23.32%

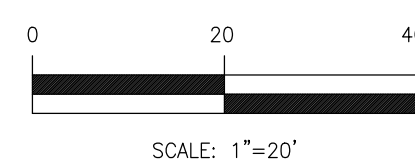
STEEP SLOPE NOTES

THERE ARE NO STEEP SLOPES ON SITE.

SOIL MOVING NOTES

CUT	4,042 C.Y.
FILL	2,260 C.Y.
EXPORT	1,782 C.Y.

WAIVER REQUIRED TO MOVE MORE THAN 1,000 C.Y. OF SOIL.



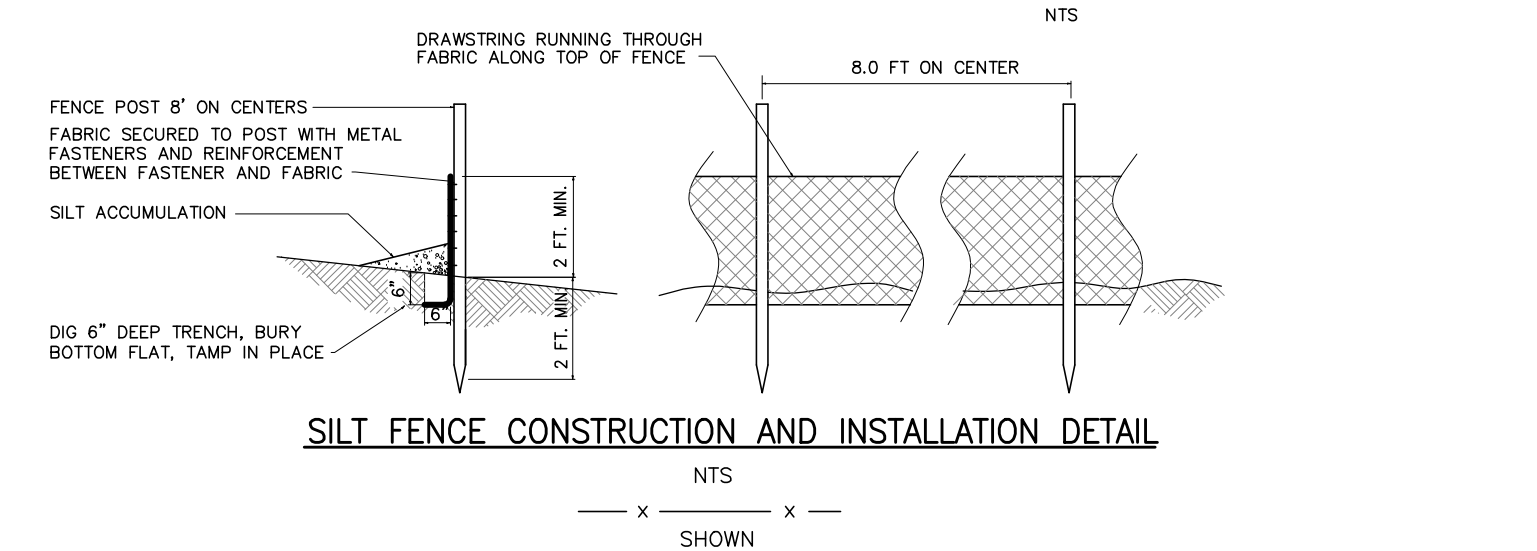
BERGEN COUNTY SOIL CONSERVATION DISTRICT
SOIL EROSION AND SEDIMENT CONTROL NOTES

1. All soil erosion and sediment control practices will be installed in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey (NJ Standards), and will be installed in proper sequence and maintained until permanent stabilization is established.
2. Any disturbed area that will be left exposed for more than thirty (30) days and not subject to construction traffic shall immediately receive a temporary seeding and mulching. If the season prohibits temporary seeding, the disturbed area will be mulched with unrutted straw at a rate of 2 tons per acre anchored by approved methods (i.e. peg and twine, mulch netting, or liquid mulch binder).
3. Immediately following initial disturbance or rough grading, all critical areas subject to erosion will receive a temporary seeding in combination with straw mulch or a suitable equivalent, at a rate of 2 tons per acre, according to the NJ Standards.
4. Stabilization Specifications:
 - A. Temporary Seeding and Mulching:
 - Grass Seed - Apply 11lbs./1,000 sq ft of 10-20-10 or equivalent with 50% water insoluble nitrogen (unless a soil test indicates otherwise) worked into the soil a minimum of 4".
 - Seed - perennial ryegrass 100 lbs./acre (2.3 lbs./1,000 sq ft) or other approved seeds; plant between March 1 and May 15 or between August 15 and October 1.
 - Mulch - Unrutted straw or hay at a rate of 70 to 90 lbs./1,000 sq ft applied to achieve 95% soil surface coverage. Mulch shall be anchored by approved methods (i.e. peg and twine, mulch netting, or liquid mulch binder).
 - B. Permanent Seeding and Mulching:
 - Topsoil - A uniform application to an average depth of 5", minimum of 4" firm in place is required.
 - Grass Seed - Apply 11lbs./1,000 sq ft of 10-20-10 or equivalent with 50% water insoluble nitrogen (unless a soil test indicates otherwise) worked into the soil a minimum of 4".
 - Seed - Turf type tall fescue (blend of 3 cultivars) 250 lbs./acre (8 lbs./1,000 sq ft) or other approved seeds; plant between March 1 and October 1.
 - Mulch - Unrutted straw or hay at a rate of 70 to 90 lbs./1,000 sq ft applied to achieve 95% soil surface coverage. Mulch shall be anchored by approved methods (i.e. peg and twine, mulch netting, or liquid mulch binder).
5. The site shall at all times be graded and maintained such that all Stormwater runoff is diverted to soil erosion and sediment control facilities.
6. Soil erosion and sediment control measures will be inspected and maintained on a regular basis, including after every storm event.
7. Stockpiles are not to be located within 50' of a floodplain, stream, roadway or drainage facility. The base of all stockpiles shall be contained by a hwy/drainage sediment barrier or silt fence.
8. A crushed stone, vehicle wheel-cleaning blanket will be installed whenever a construction access road intersects any paved roadway. Said blanket will be composed of 1" - 2 1/2" crushed stone, 6" thick, will be at least 30' x 100' and should be underlain with a suitable synthetic sediment filter fabric and maintained.
9. Maximum side slopes of all exposed surfaces shall not exceed 3:1 unless otherwise approved by the District.
10. Driveways must be stabilized with 1" - 2 1/2" crushed stone or subbase prior to individual lot construction.
11. All soil washed, dropped, spilled or tracked outside the limit of disturbance or onto public right-of-ways, will be removed immediately. Paved roadways must be kept clean at all times.
12. Catch basin inlets will be protected with an inlet filter designed in accordance with Section 28 - 1 of the NJ Standards.
13. Storm drainage outlets will be stabilized, as required, before the discharge points become operational.
14. Dewatering operations must discharge directly into a sediment control bag or other approved filter in accordance with Section 14-1 of the NJ Standards.
15. Dust shall be controlled via the application of water, calcium chloride or other approved method in accordance with Section 16-1 of the NJ Standards.
16. Trees to remain after construction are to be protected with a suitable fence installed at the drip line or beyond in accordance with Section 9-1 of the NJ Standards.
17. The project owner shall be responsible for any erosion or sedimentation that may occur below stormwater outfalls or off-site as a result of construction of the project.
18. Any revision to the certified Soil Erosion and Sediment Control Plan must be submitted to the District for review and approval prior to implementation in the field.
19. A copy of the certified Soil Erosion and Sediment Control Plan must be available at the project site throughout construction.
20. The Bergen County Soil Conservation District must be notified, in writing, at least 48 hours prior to any land disturbance: Bergen County SCD, 700 Kinderhook Road, Suite 106, Oradell, NJ 07649. Tel. 201-261-4407; Fax 201-261-7573.
21. The Bergen County Soil Conservation District may request additional measures to minimize on- or off-site erosion problems during construction.
22. The owner must obtain a District issued report of compliance prior to the issuance of any certificate of occupancy. The District requires at least one week's notice to initiate the scheduling of all report of compliance inspections. All site work must be completed, including temporary/permanent stabilization of all exposed areas, prior to the issuance of a report of compliance by the District.

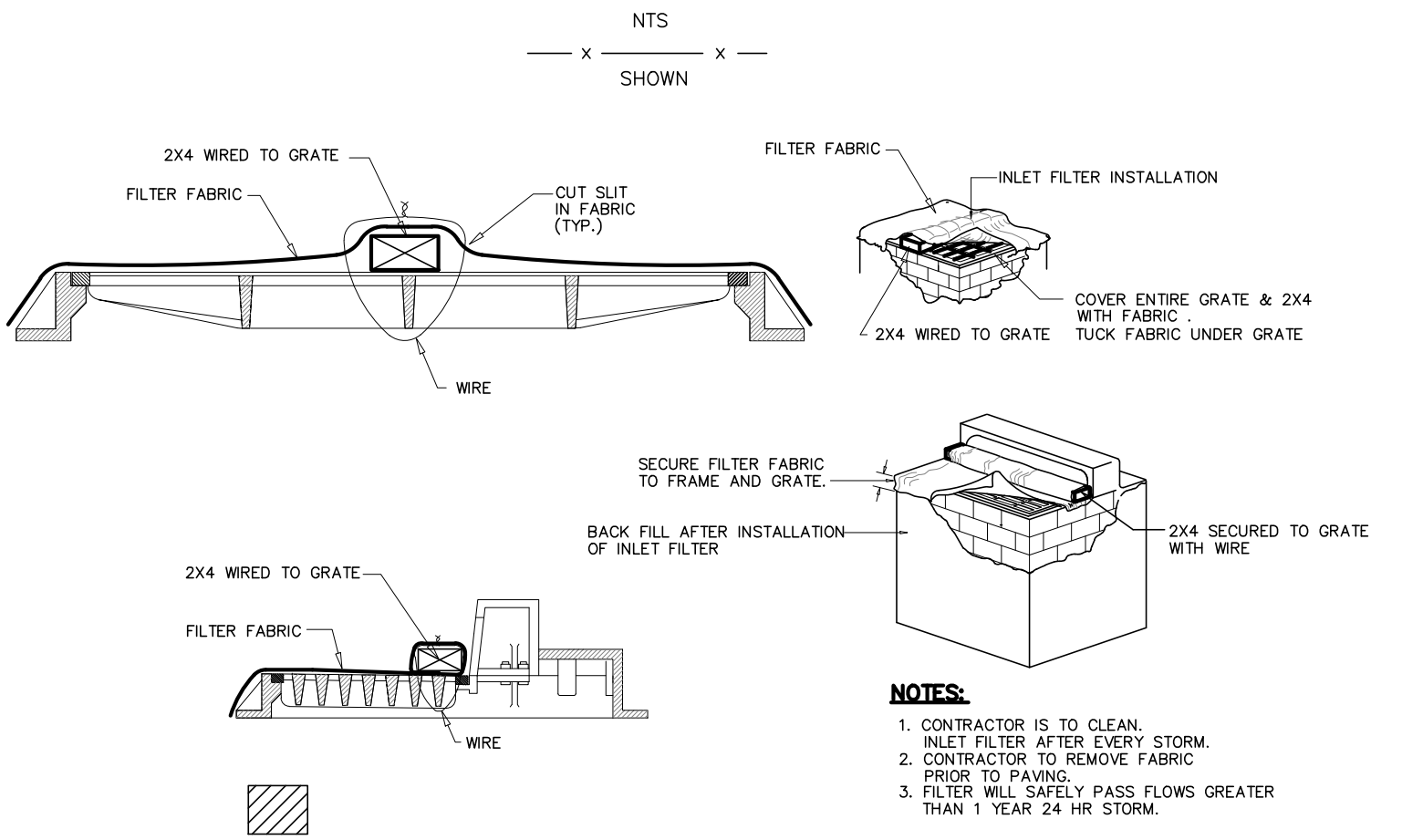
SEQUENCE OF CONSTRUCTION

- 1A. INSTALL 25'X50' TRACKING BED AT CONSTRUCTION ENTRANCE
- 1B. INSTALL SILT FENCE ALONG PROPERTY SUBJECT TO SOIL EROSION ACCORDING TO PLAN
2. DEMOLISH EXISTING BUILDING
3. REMOVE TOPSOIL AND STOCKPILE
4. PROVIDE ROUGH GRADING FOR SITE
5. EXCAVATE FOR NEW BUILDING, DRIVEWAY, AND UTILITIES
6. CONSTRUCT NEW BUILDING, DRIVEWAY, AND UTILITIES
7. PROVIDE FINAL GRADING, TOPSOIL REPLACEMENT, AND LANDSCAPING (UNIFORMITY APPLY TOPSOIL TO AN AVERAGE DEPTH OF 5", MINIMUM OF 4", FIRMED IN PLACE)
8. PROVIDE FINAL PAVING
9. REMOVE SOIL EROSION CONTROL DEVICES AS DIRECTED BY LOCAL SERVICE

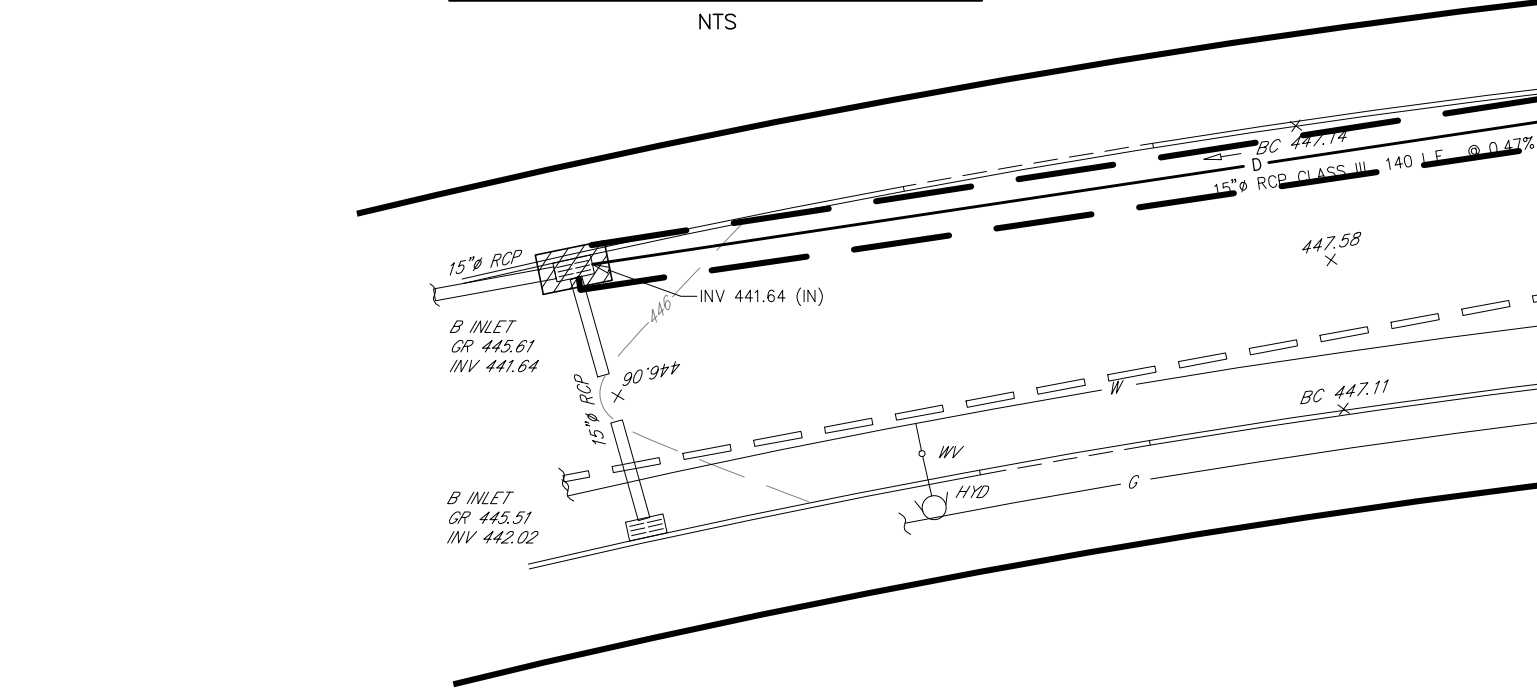
STABILIZED CONSTRUCTION ACCESS



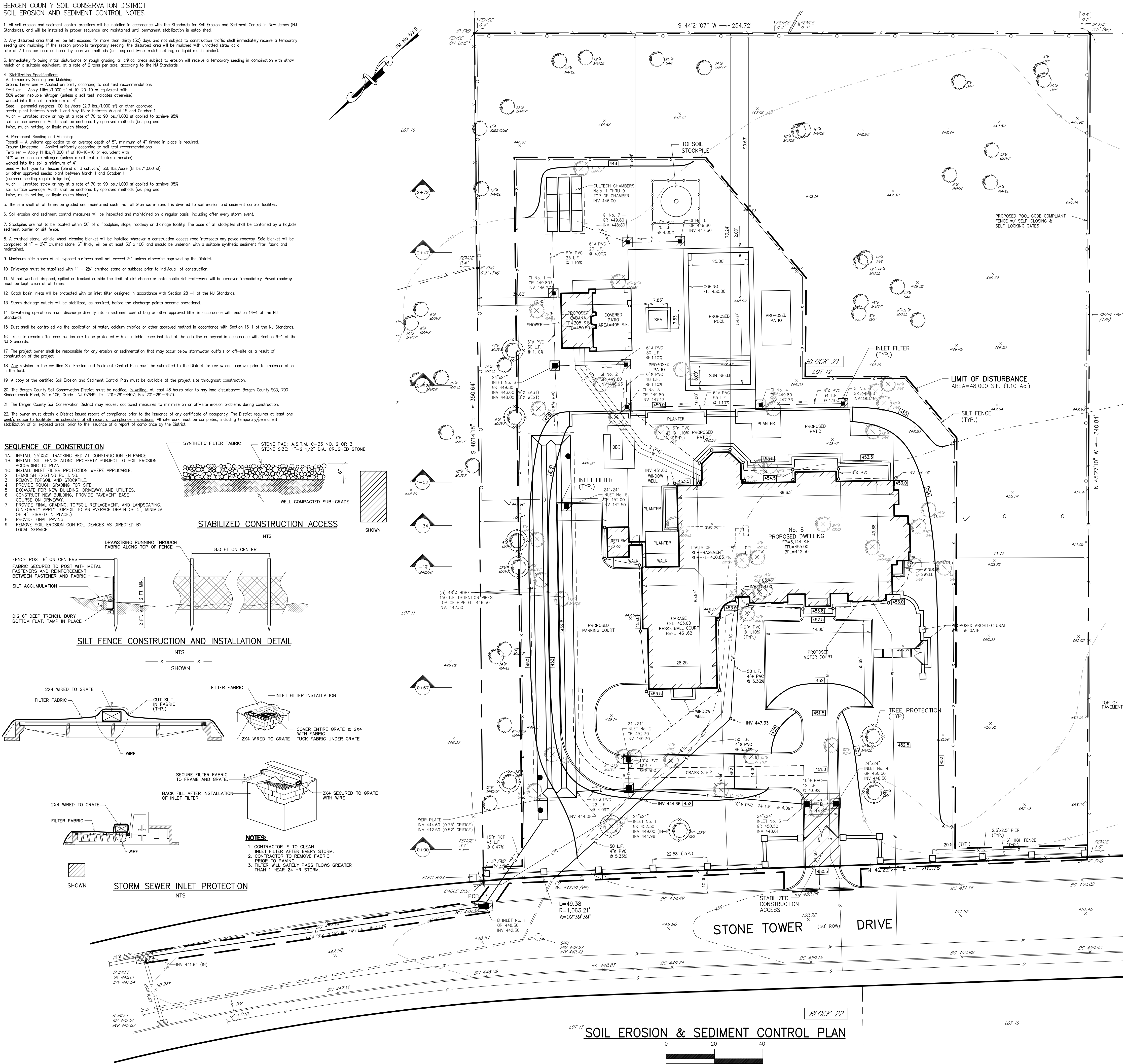
SILT FENCE CONSTRUCTION AND INSTALLATION DETAIL



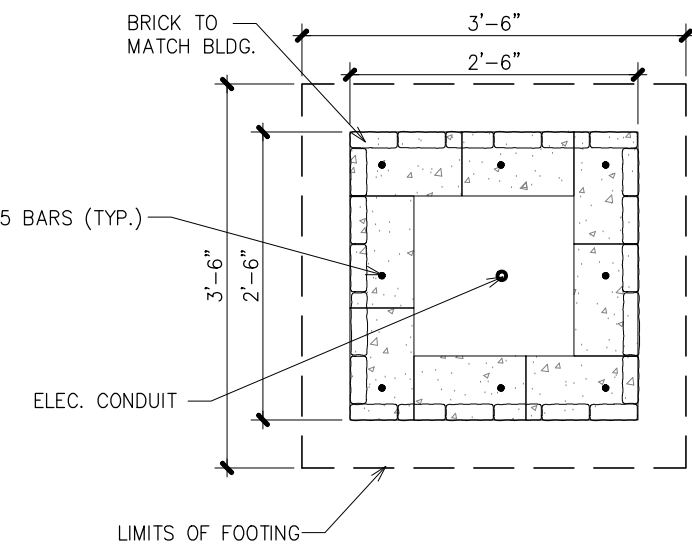
STORM SEWER INLET PROTECTION



SOIL EROSION & SEDIMENT CONTROL PLAN



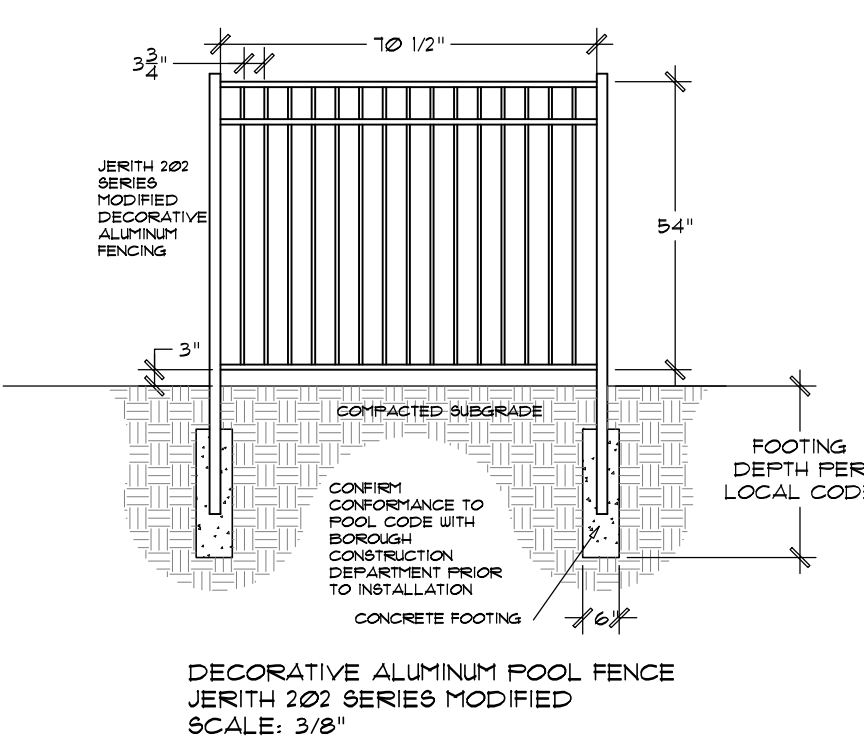
GATE DETAIL



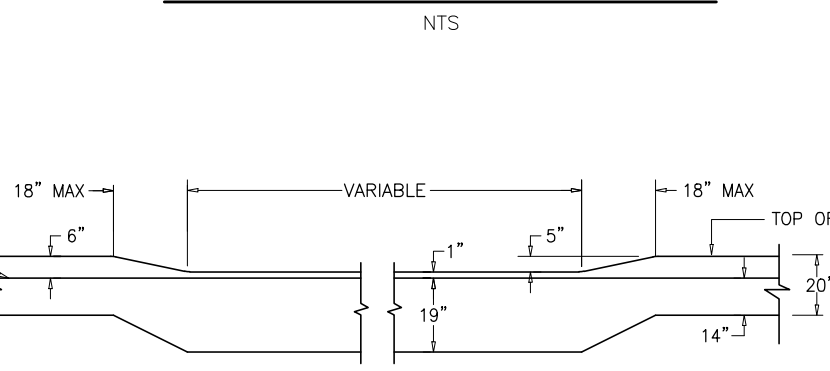
PLAN

ELEVATION

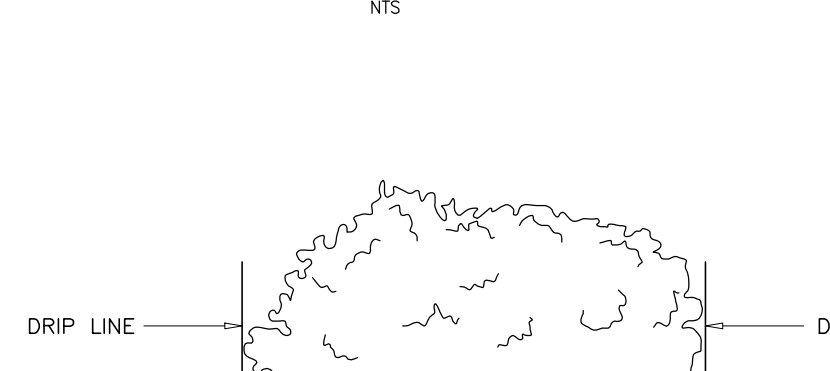
DECORATIVE COLUMN DETAIL



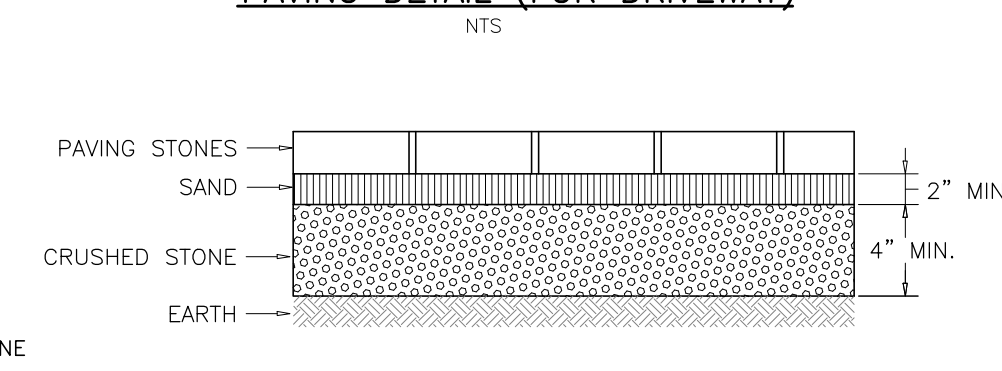
PAVEMENT RESTORATION DETAIL



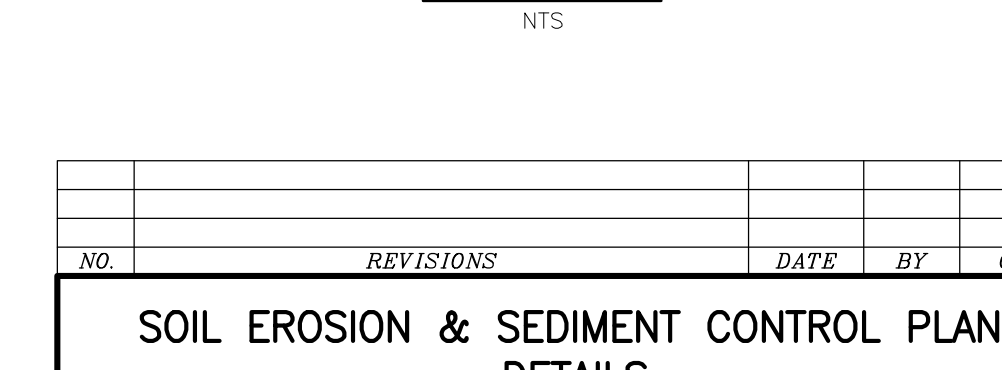
DETAIL OF DROP CURB



PAVING DETAIL (FOR DRIVEWAY)



PAVER DETAIL

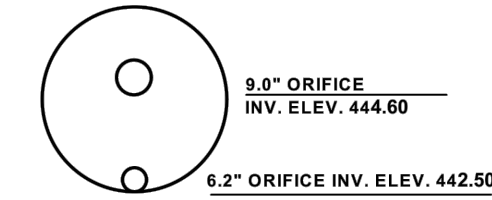


SOIL EROSION EXEMPTION NOTE:
THIS PROJECT IS EXEMPT FROM SOIL COMPACTION TESTING AND REMEDIATION AS IT IS IN AN URBAN REDEVELOPMENT AREA.

MICHAEL J. HUBSCHMAN P.E., P.P.
PROFESSIONAL ENGINEER AND PLANNER
N.J.P.E. NO. 29497 N.J.P.P. NO. 3200

2-7-22
DATE

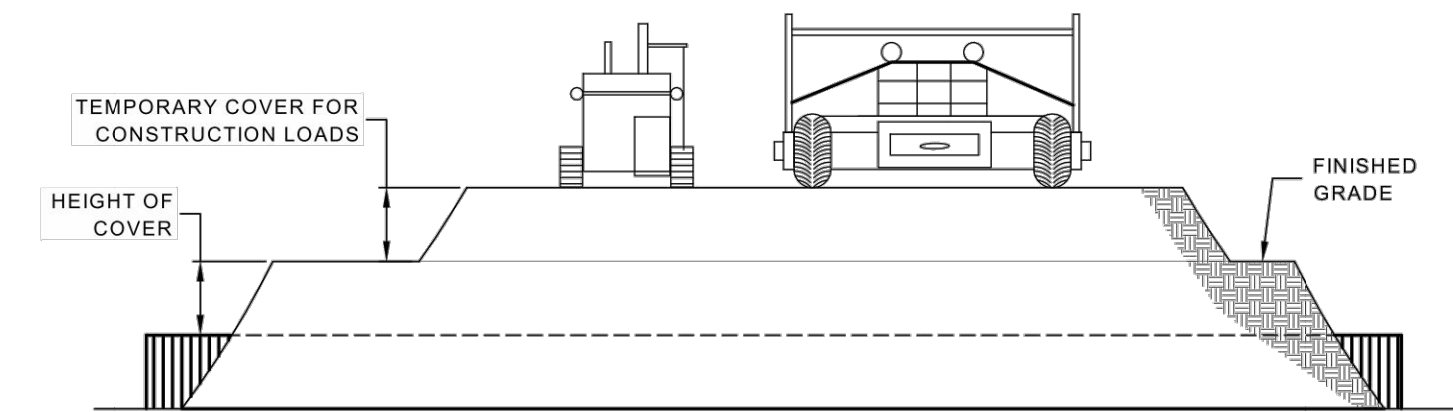
NO.	REVISIONS	DATE	BY	CHKD
1	REVISED PER COMMENTS	2-7-22	MJH	
2	REVISED PER COMMENTS	2-7-22	MJH	
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4	REVISED PER COMMENTS	2-7-22	MJH	
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WEIR PLATE C2 DETAIL

NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
- ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD (EOR) PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2 1/2" x 1/2" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE AS REQUIRED, BY CONTRACTOR.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL ACCESS CASTINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE NOT SUPPLIED BY CONTECH.



FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM
NOT TO SCALE

SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 STEEL

SCOPE

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

MATERIAL

THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M274 OR ASTM A929.

PIPE

THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M36 OR ASTM A780. THE PIPE SIZES, GAGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

HANDLING AND ASSEMBLY

SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION (NCSA)

INSTALLATION

SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A788 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

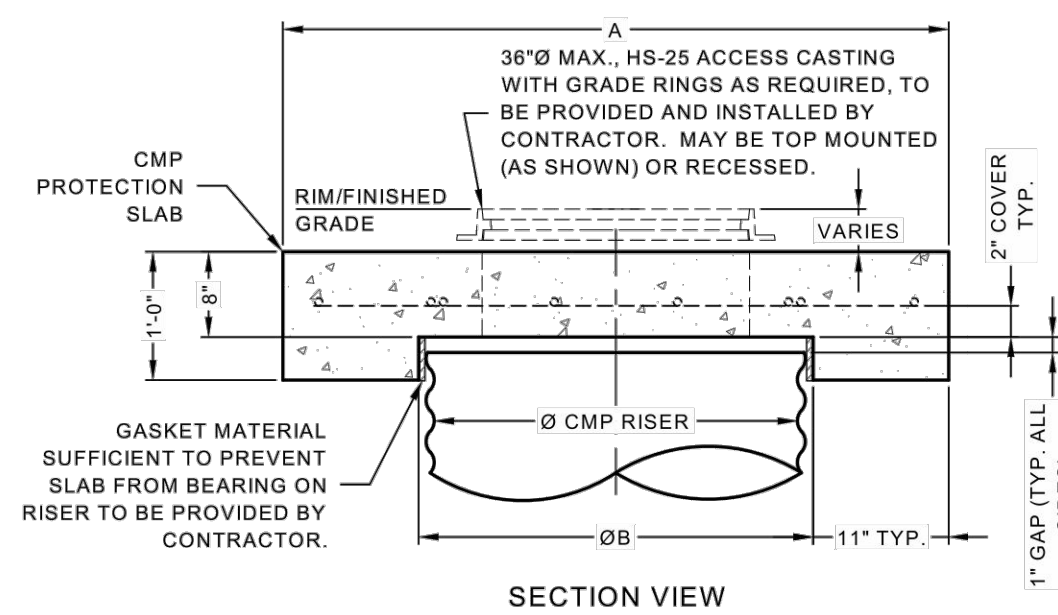
ANTI-FLOTATION PROVISIONS DUE TO HIGH GROUNDWATER OR OTHER FLOTATION CONCERNS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

MATERIAL SPECIFICATION
NOT TO SCALE

ASSEMBLY
SCALE: 1" = 20'
PIPE STORAGE: 5,869 CF
LOADING: H20
PIPE INV. = 445.00±

STUB INFORMATION		
PIECE	STUB INVERT	SYSTEM INVERT
6"Ø STUB A1	TBD	442.5
12"Ø STUB A2	TBD	442.50
12"Ø STUB A3	TBD	442.50
12"Ø STUB B1	TBD	442.50
15"Ø STUB F2	TBD	442.50

RISER INFORMATION		
PIECE	RIM ELEV.	SYSTEM INVERT
30"Ø RISER C1	452.00	0.00
30"Ø RISER D1	450.00	0.00
30"Ø RISER F3	TBD	0.00

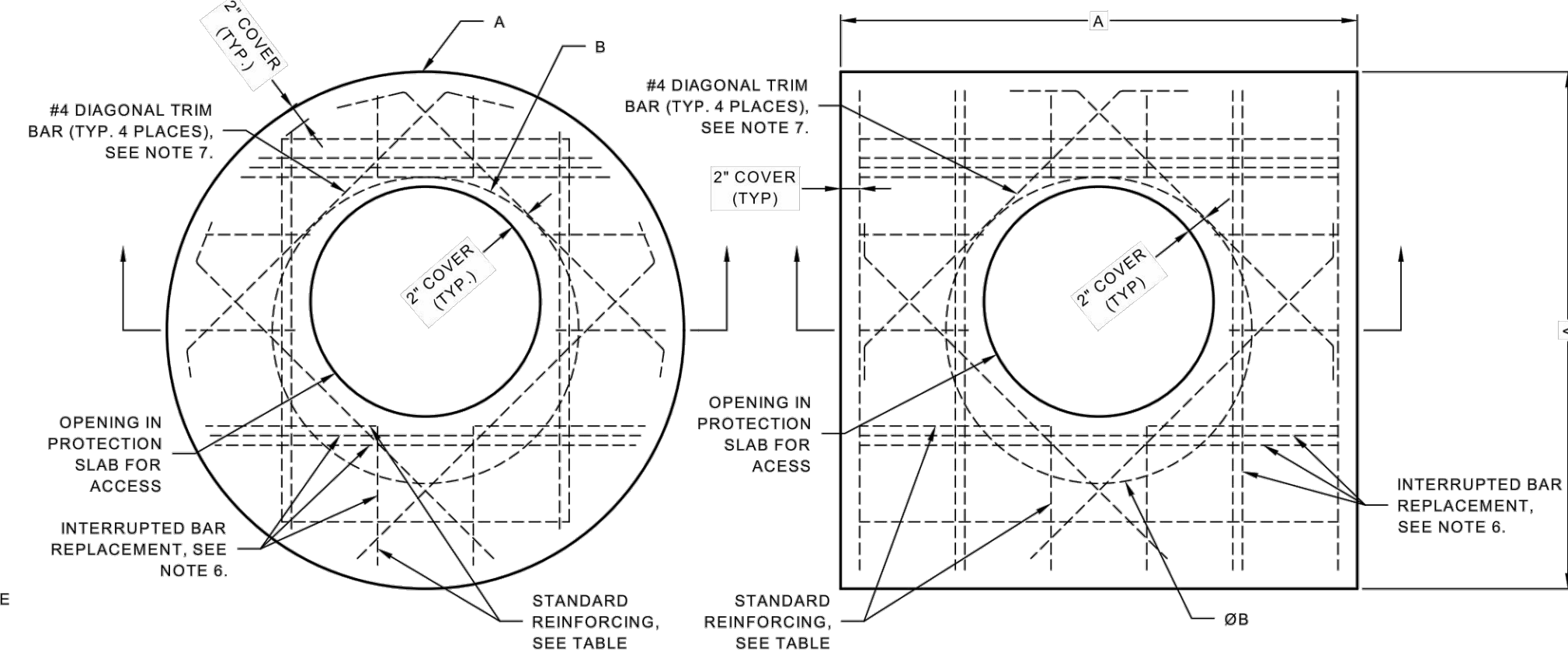


SECTION VIEW

REINFORCING TABLE				
Ø CMP RISER	A	B Ø	REINFORCING	**BEARING PRESSURE (PSF)
24"	4'Ø 4'x4'	26"	#5 @ 10" OCEW #5 @ 10" OCEW	2,540 1,900
30"	4'-6"Ø 4'-6" x 4'-6"	32"	#5 @ 10" OCEW #5 @ 9" OCEW	2,260 1,670
36"	5'Ø 5' x 5'	38"	#5 @ 9" OCEW #5 @ 8" OCEW	2,060 1,500
42"	5'-6"Ø 5'-6" x 5'-6"	44"	#5 @ 8" OCEW #5 @ 8" OCEW	1,490 1,370
48"	6'Ø 6' x 6'	50"	#5 @ 7" OCEW #5 @ 7" OCEW	1,210 1,270

** ASSUMED SOIL BEARING CAPACITY

ACCESS CASTING NOT SUPPLIED BY CONTECH



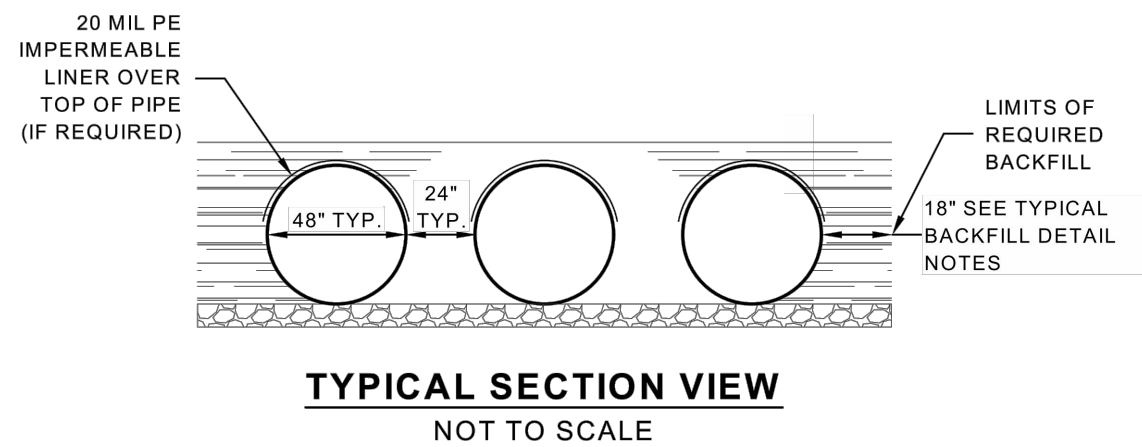
ROUND OPTION PLAN VIEW

SQUARE OPTION PLAN VIEW

NOTES:

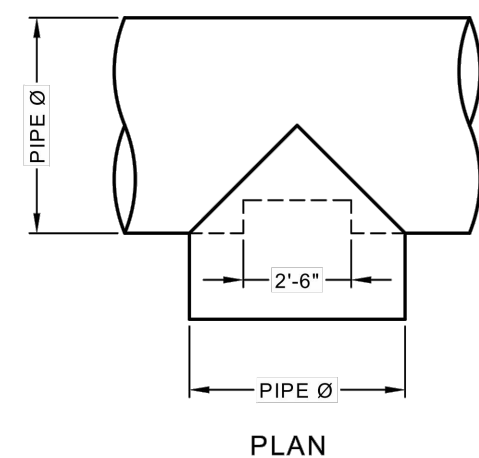
- DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION AND ACI 350.
- DESIGN LOAD HS25.
- EARTH COVER = 1' MAX.
- CONCRETE STRENGTH = 4,000 psi
- REINFORCING STEEL = ASTM A615, GRADE 60.
- PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.

MANHOLE CAP DETAIL
NOT TO SCALE

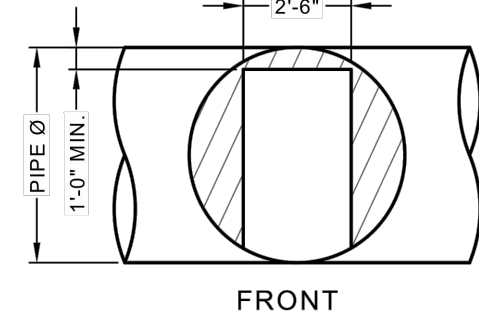


TYPICAL SECTION VIEW
NOT TO SCALE

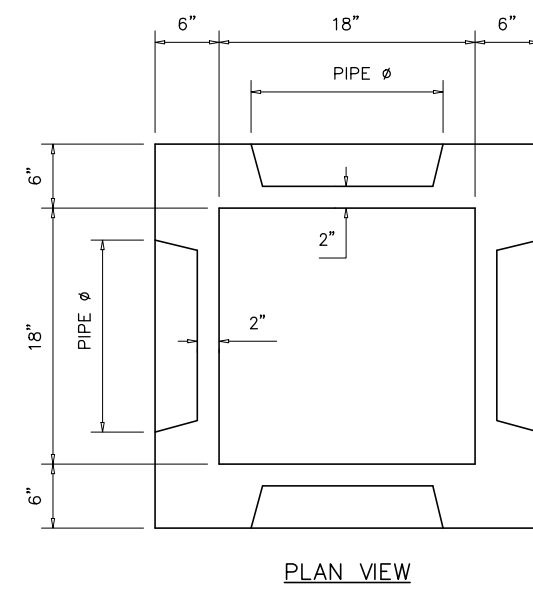
NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.



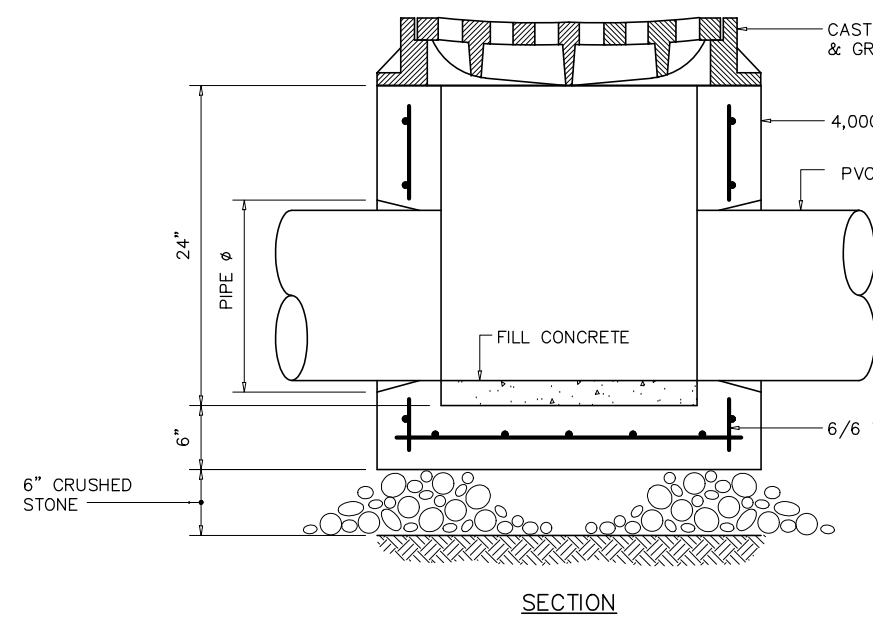
PLAN



FRONT
48"Ø to 90"Ø FITTING REINFORCEMENT
MAY BE REQUIRED BASED ON HEIGHT OF
COVER AND LIVE LOAD CONDITION
TYPICAL MANWAY DETAIL
NOT TO SCALE

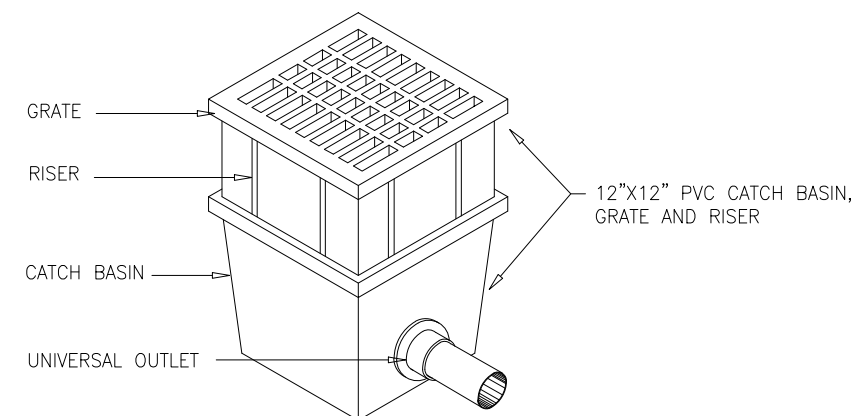


PLAN VIEW

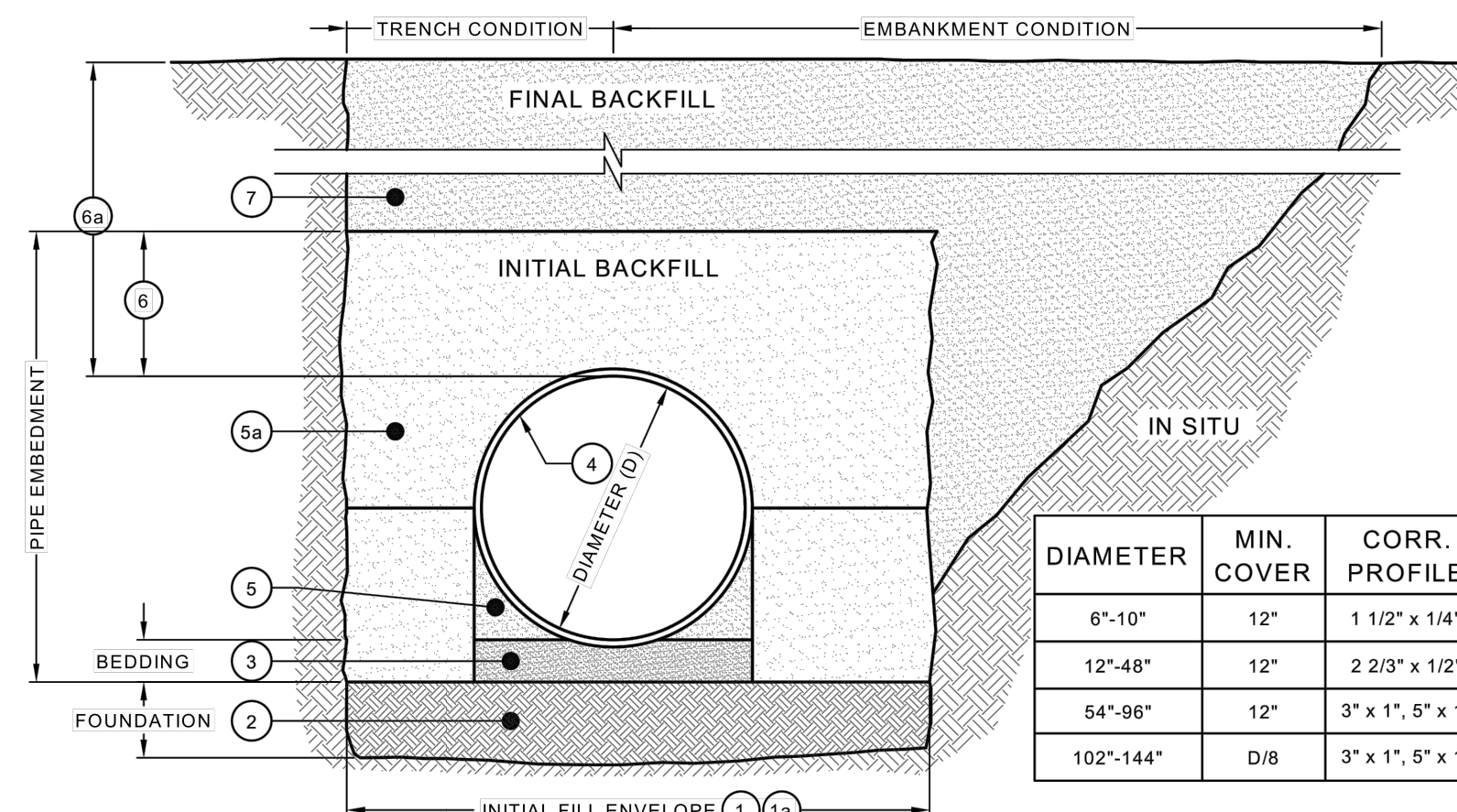


SECTION

18"x18" KNOCKOUT CATCH BASIN
N.T.S.



PVC GARDEN INLET
N.T.S.



DIAMETER	MIN. COVER	CORR. PROFILE
6"-10"	12"	1 1/2" x 1/4"
12"-48"	12"	2 2/3" x 1/2"
54"-96"	12"	3" x 1", 5" x 1"
102"-144"	D/8	3" x 1", 5" x 1"

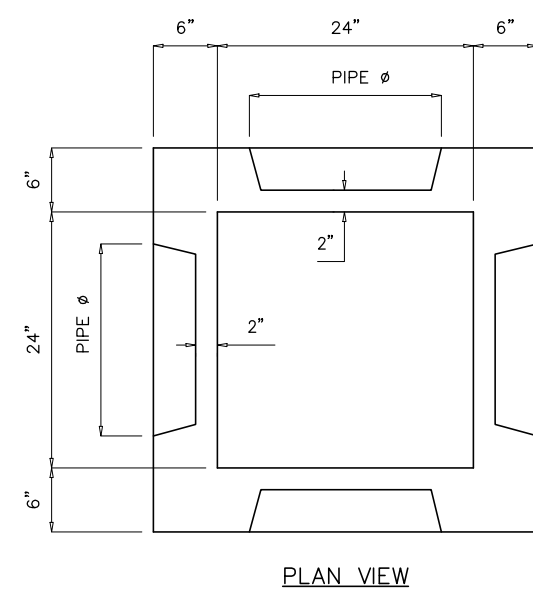
BACKFILL REQUIREMENTS FOLLOW THE GUIDELINES OF AASHTO LRFD BRIDGE DESIGN (SEC 12) AND CONSTRUCTION (SEC 26)

- MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE. THE MINIMUM TRENCH WIDTH (12.6.6.1):
PIPE ≤ 12": D + 16"
PIPE > 12": 1.5D + 12"
- MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE (12.6.6.2):
PIPE ≤ 24": 3.0D
PIPE 24" - 144": D + 4'0"
PIPE > 144": D + 10'0"
- THE FOUNDATION UNDER THE PIPE AND SIDE BACKFILL SHALL BE ADEQUATE TO SUPPORT THE LOADS ACTING UPON IT (26.5.2).
- ENGINEER TO DETERMINE IF BEDDING IS REQUIRED. BEDDING MATERIAL SHALL BE A RELATIVELY LOOSE MATERIAL THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE, AND A MINIMUM OF TWICE THE CORRUGATION DEPTH IN THICKNESS, WITH THE MAXIMUM PARTICLE SIZE OF ONE-HALF OF THE CORRUGATION DEPTH (26.5.3.1, 26.5.3).
- CORRUGATED STEEL PIPE (CSP / HEL-COR).
- HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION (26.5.4).
- INITIAL BACKFILL FOR PIPE EMBEDMENT TO MEET AASHTO A-1, A-2 OR A-3 CLASSIFICATION, OR APPROVED EQUAL, COMPACTED TO 90% STANDARD PROCTOR (T 99). MAXIMUM PARTICLE SIZE NOT TO EXCEED 3" (12.4.1.2). ALL LIFTS PLACED IN A CONTROLLED MANNER. IT IS RECOMMENDED THAT LIFTS NOT EXCEED AN 8" UNCOMPACTED LIFT HEIGHT TO PREVENT UNEVEN LOADING, AND THE LESSER OF 1/3 THE DIAMETER OR 24" AS THE MAXIMUM DIFFERENTIAL SIDE-TO-SIDE (26.5.4).
- INITIAL BACKFILL ABOVE PIPE MAY INCLUDE ROAD BASE MATERIAL (AND RIGID PAVEMENT IF APPLICABLE). SEE TABLE ABOVE.
- TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT (12.6.6.3).
- FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD (26.5.4.1).

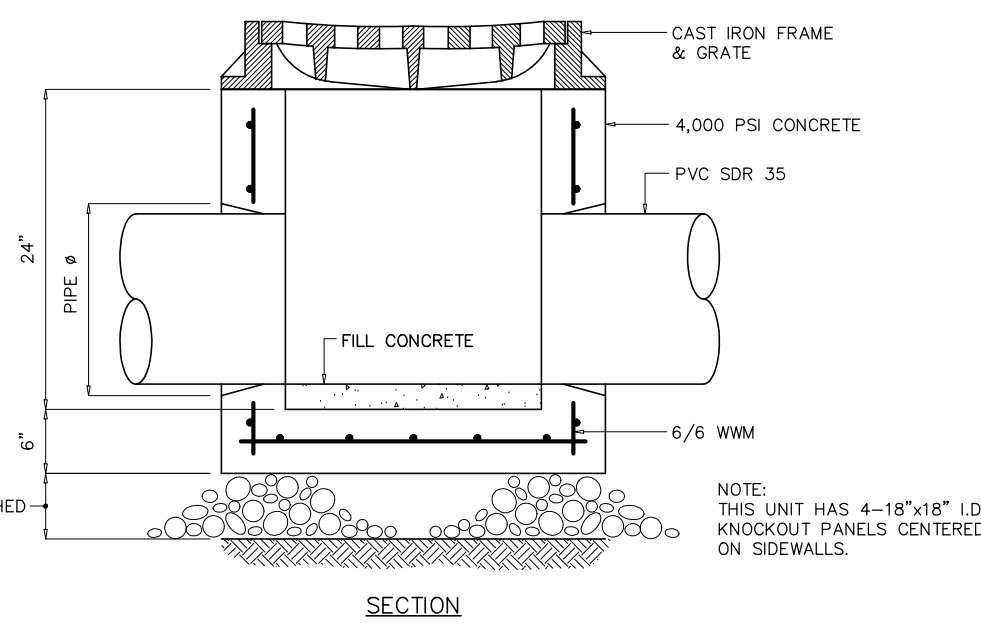
NOTES:

- ENGINEER TO DETERMINE IF GEOTEXTILE SHOULD BE USED TO PREVENT SOIL MIGRATION INTO VARYING SOIL TYPES (PROJECT ENGINEER).
- FOR MULTIPLE BARREL INSTALLATIONS THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE PIPE DIA./2 BUT NO LESS THAN 12", OR 36" FOR PIPE DIAMETERS 72" AND LARGER.
- CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING (TABLE C12.6.7-1).

TYPICAL BACKFILL DETAIL
NOT TO SCALE



PLAN VIEW



SECTION

24"x24" KNOCKOUT CATCH BASIN
N.T.S.

N.T.S.				
NO.	REVISIONS	DATE	BY	CHKD
DRAINAGE SYSTEM DETAILS				
LOT 12		PROPOSED SINGLE FAMILY DWELLING		BLOCK 21
No. 8 STONE TOWER DRIVE				
BOROUGH OF ALPINE		BERGEN COUNTY		NEW JERSEY
APPLICANT: ROCK RIDGE CONSTRUCTION MANAGEMENT, LLC 64 NORTH SUMMIT STREET, SUITE 200 TENAFLY, NJ 07670				
MICHAEL J. HUBSCHMAN P.E., P.P. PROFESSIONAL ENGINEER AND PLANNER N.J.P.E. NO. 29497		N.J.P.P. NO. 3200		
DRAWN BY: B.W. CHKD BY: MJH		SCALE: AS SHOWN		
DRAWING NO. 3972-4		REV. #		
HUBSCHMAN ENGINEERING, P.A. ENGINEERS - PLANNERS - SURVEYORS 263A S. WASHINGTON AVE., BERGENFIELD, NJ 07621 201-384-5666				

TEST PIT No's 1-3 DATA

DEPTH & WIDTH SOIL HORIZON	COLOR DESCRIBED USING MUNSEL SYSTEM	SOIL TEXTURE FIG. 3 APP. A	VOLUME % OF COURSE FRAGMENTS FIG. A, APP. A	SIZE AND ABUNDAN CE OF MOTTLING	SOIL STRUCT URE	SOIL CONSIST ANCE	LIMITING ZONE	NOTES
TEST EXCAVATION No. 1								
0-6"								Top soil
6"-48"	7.5YR6/8	Clay Loam	<15%	Prominent	SAB	M. Friable		mottles @24"
48"-64"	7.5YR5/6	Sandy Galy Loam	<25%	none	SAB	M. Friable		Bedrock @64"
64" to Bedrock, Seepage @48" Mottles @24"								
TEST EXCAVATION No. 2								
0-12"								Top soil
12"-36"	7.5YR6/8	Clay Loam	<15%	Prominent	SAB	M. Friable		mottles @24"
36"-48"	7.5YR5/6	Sandy Galy Loam	<25%	none	SAB	M. Friable		bedrock @48"
48" to Bedrock, Seepage @36" Mottles @24"								
TEST EXCAVATION No. 3								
0-12"								Top Soil
12" to bedrock								

TEST PIT No's 4-6 DATA

DEPTH & WIDTH SOIL HORIZON	COLOR DESCRIBED USING MUNSEL SYSTEM	SOIL TEXTURE FIG. 3 APP. A	VOLUME % OF COURSE FRAGMENTS FIG. A, APP. A	SIZE AND ABUNDAN CE OF MOTTLING	SOIL STRUCT URE	SOIL CONSIST ANCE	LIMITING ZONE	NOTES
TEST EXCAVATION No. 4								
0-12"								Top soil
12"-48"	7.5YR6/8	Clay Loam	<15%	Prominent	SAB	M. Friable		mottles @24"
48"-84"	7.5YR5/6	Sandy Galy Loam	<25%	none	SAB	M. Friable		Bedrock @84"
84" to Bedrock, Seepage @48" Mottles @24"								
TEST EXCAVATION No. 5								
0-12"								Top soil
12" to bedrock								
TEST EXCAVATION No. 6								
0-12"								Top soil
12"-36"	7.5YR6/8	Clay Loam	<15%	Prominent	SAB	M. Friable		mottles @24"
36"-48"	7.5YR5/6	Sandy Galy Loam	<25%	none	SAB	M. Friable		bedrock @48"
48" to Bedrock, Seepage @24" Mottles @24" Sample @48"								

SECTION R326
SWIMMING POOLS, SPAS AND HOT TUBS

R326.1 General. The design and construction of pools, spas and enclosures shall comply with the *International Swimming Pool and Spa Code*. Amendments to the *International Swimming Pool and Spa Code* shall be as follows:

1. Chapter 1, Scope and Administration, shall be deleted in its entirety and "See the administrative provisions of N.J.A.C. 5:23" shall be inserted. In addition, any referenced section of Chapter 1 shall be deleted throughout the code and "the administrative provisions of the Uniform Construction Code (N.J.A.C. 5:23)" shall be inserted.

2. Chapter 2, Definitions, shall be amended as follows:

2.1. In Section 201.3, Terms defined in other codes, "International Plumbing Code" shall be deleted and "plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.

2.2. In Section 202, Definitions:

2.2.1. The definition of "Alteration" shall be deleted.

2.2.2. The definition of "Code official" shall be deleted and the following shall be inserted: "Construction Official. A qualified person appointed by the municipal appointing authority or the commissioner pursuant to the act and the regulations to enforce and administer the regulations within the jurisdiction of the enforcing agency."

2.2.3. The definition of "Existing pool or spa" shall be deleted.

2.2.4. The definition of "Owner" shall be deleted and the following shall be inserted: "Owner. The owner or owners in fee of the property of a lesser estate therein, a mortgagee or vendee in possession, an assignee of rents, receiver, executor, trustee, lessee or any other person, firm or corporation, directly or indirectly in control of a building, structure or real property and shall include any subdivision thereof of the State."

2.2.5. The definitions of "Permit" and "Repair" shall be deleted.

3. Chapter 3, General Compliance, shall be amended as follows:

3.1. In Section 302.1, Electrical, "or the *International Residential Code*, as applicable in accordance with Section 102.7.1" shall be deleted.

3.2. In Section 302.2, Water service drainage, "International Plumbing Code" shall be deleted and "plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.

3.3. In Sections 302.5, Back flow prevention, and 302.6, Waste-water discharge, "International Plumbing Code or the *International Residential Code*, as applicable in accordance with Section 102.7.1" shall be deleted and "plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.

3.4. Section 305, Barrier requirements, shall be amended as follows:

3.4.1. In Section 305.1, General, in the second sentence, "and swimming pools are equipped with a powered safety cover that complies with ASTM F1346" shall be deleted. Also, in the second sentence, "hot tubs or pools" shall be replaced with "or hot tubs."

3.4.2. Section 305.4, Structure wall as a barrier, shall be deleted.

3.4.3. In Section 305.5, On ground residential pool structure as a barrier, in Item 3, "capable of being secured, locked or removed to prevent access except where the ladder or steps are" shall be deleted.

3.5. In Section 306.1, General, "in accordance with Section 102.7.1" shall be deleted.

3.6. Sections 306.3, Step risers and treads, and 306.4, Deck steps handrail required, shall be deleted.

3.7. In Section 306.9.1, Hose bibs, "International Plumbing Code or the *International Residential Code*, as applicable in accordance with Section 102.7.1" shall be deleted and "plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.

3.8. In Sections 307.1.1, Glazing in hazardous locations, 307.2.2, Materials and structural design, 307.1.3, Roofs or canopies, 316.4, Installation, and 316.6.1, Installation, "in accordance with Section 102.7.1" shall be deleted.

3.9. In Section 307.9, Accessibility, the last sentence shall be deleted.

3.10. In Section 318.2, Protection of potable water supply, "International Residential Code or the *International Plumbing Code* or, as applicable in accordance with Section 102.7.1" shall be deleted and "plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.

3.11. In Section 321.4, Residential pool and deck illumination, "or the *International Residential Code*, as applicable in accordance with Section 102.7.1" shall be deleted.

4. Chapter 4, Public Swimming Pools, shall be amended as follows:

4.1. In Section 410.1, Dressing and sanitary facilities, "International Plumbing Code" shall be deleted and "plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.



5. Amendments to Chapter 6, Aquatic Recreation Facilities, shall be amended as follows:

5.1. In Section 601.1, Scope, the following sentence shall be added to the end of the paragraph, "For purposes of enforcement, Class D-2 and Class D-6 public pools shall be regulated by this chapter and N.J.A.C. 5:23; all other Class D public pools shall be regulated by N.J.A.C. 5:14A."

5.2. In Section 609.1, General, "Section 609.2 through 609.9" shall be deleted and "the plumbing subcode (N.J.A.C. 5:23-3.15)" shall be inserted.


5.3. Sections 609.2, Number of fixtures; 609.3, Showers; 609.4, Soap dispensers; 606.5, Toilet tissue holder; 609.6, Lavatory mirror; 606.7, Sanitary napkin receptacles; 609.8, Sanitary napkin dispensers; and 609.9, Infant care, shall be deleted.

GENERAL NOTES

- ELEVATIONS BASED ON NGVD 1929.
- LOT AREA: 87,120.64 S.F. (2.00 Ac.)
-  12" DENOTES TREE TO BE REMOVED.
-  DENOTES TREE TEST PIT LOCATION.

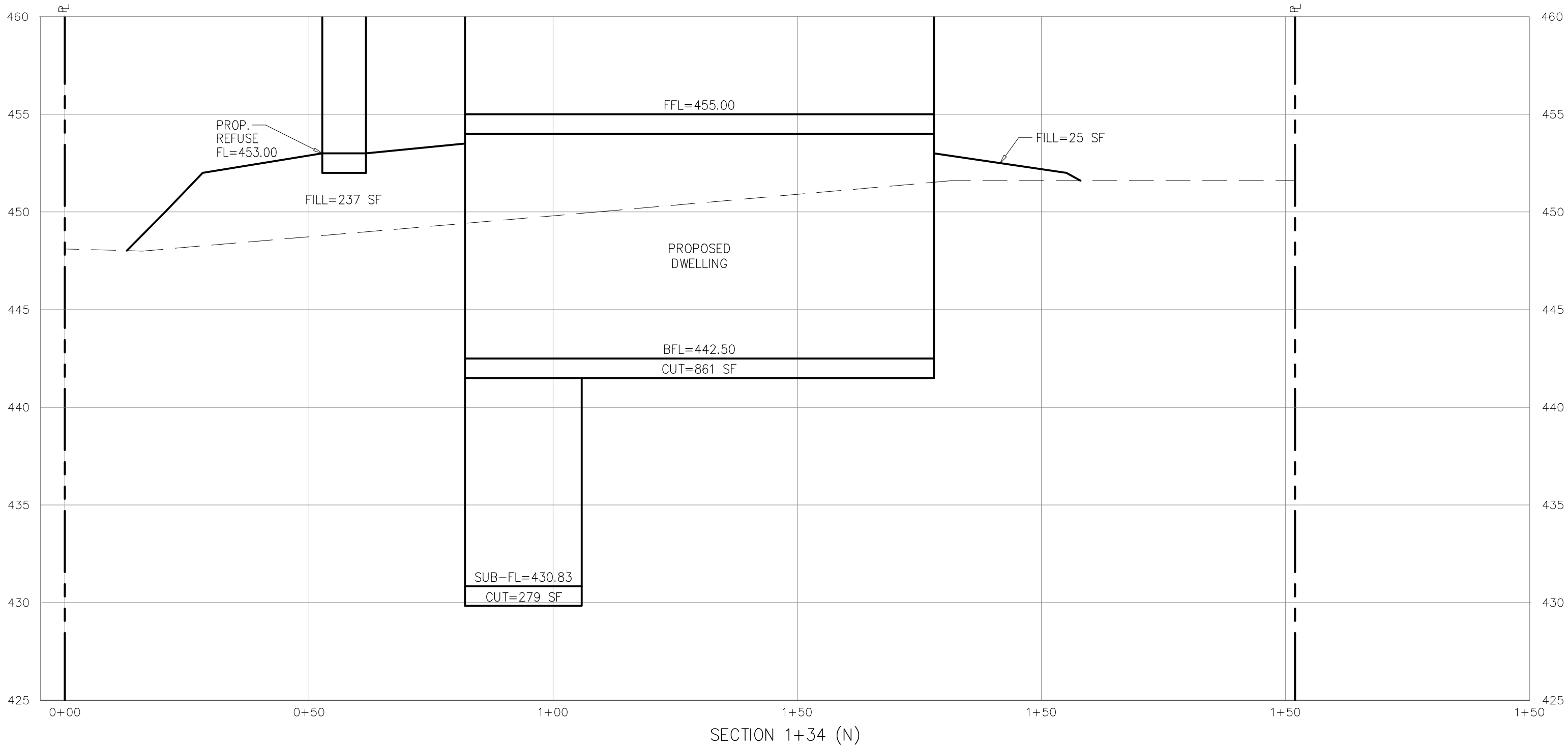
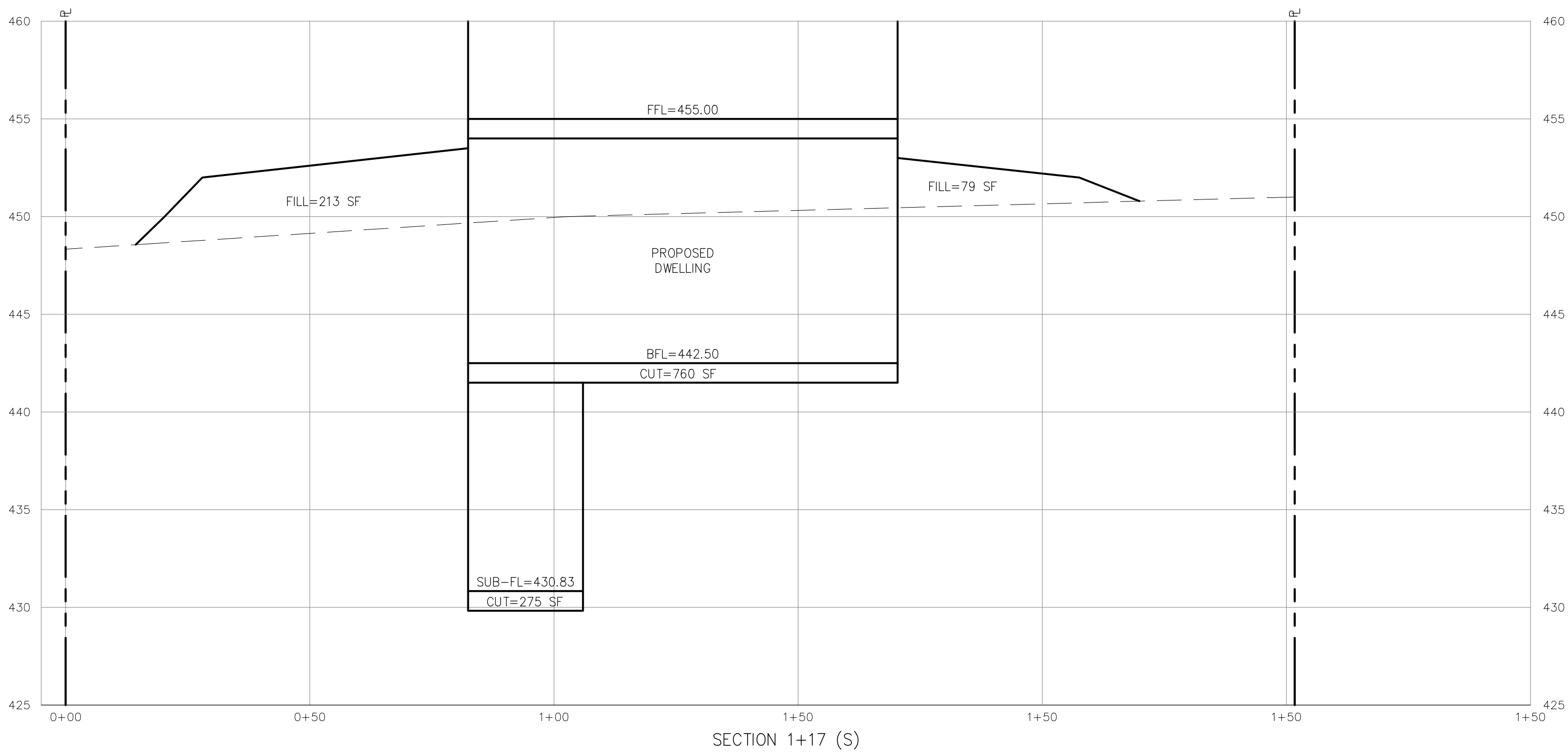
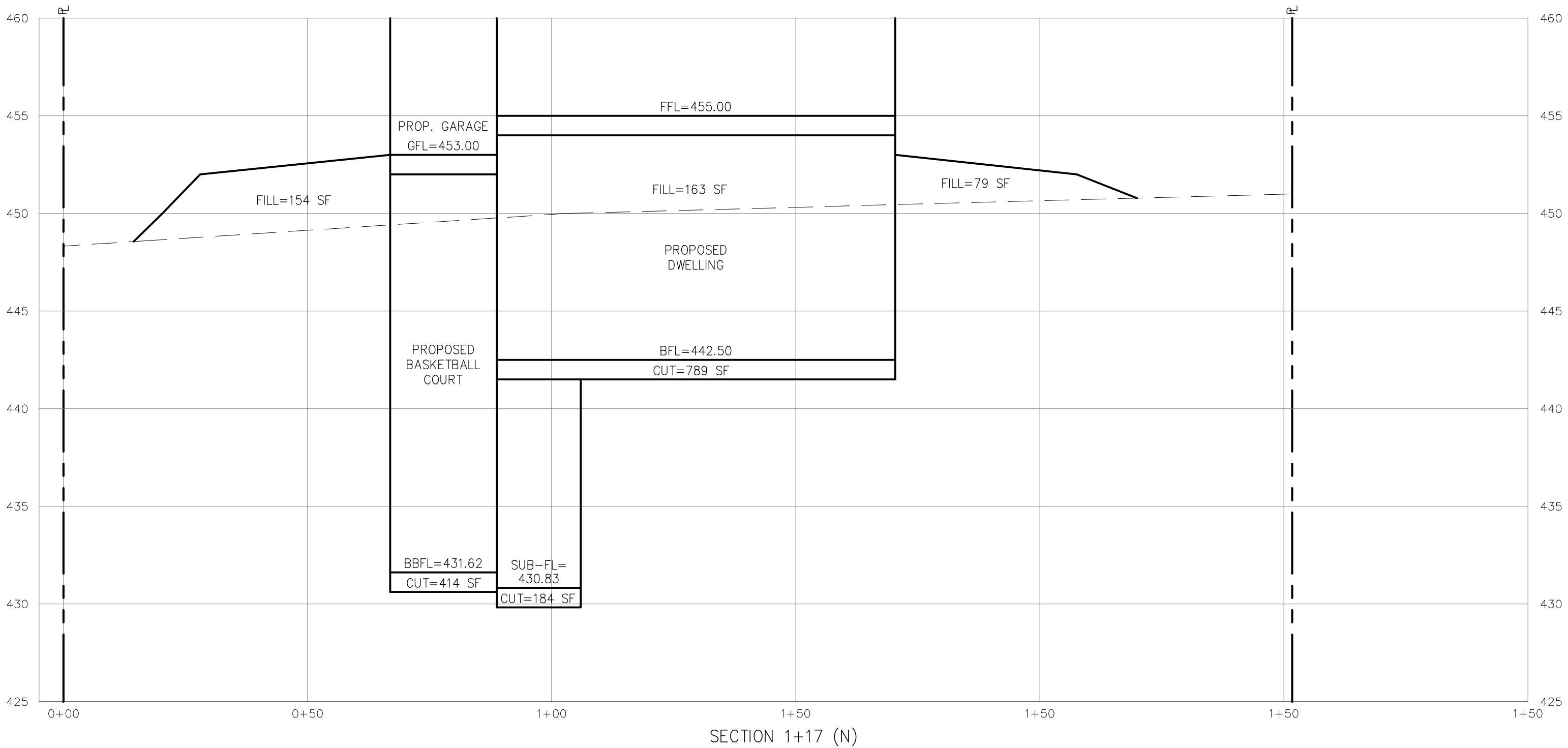
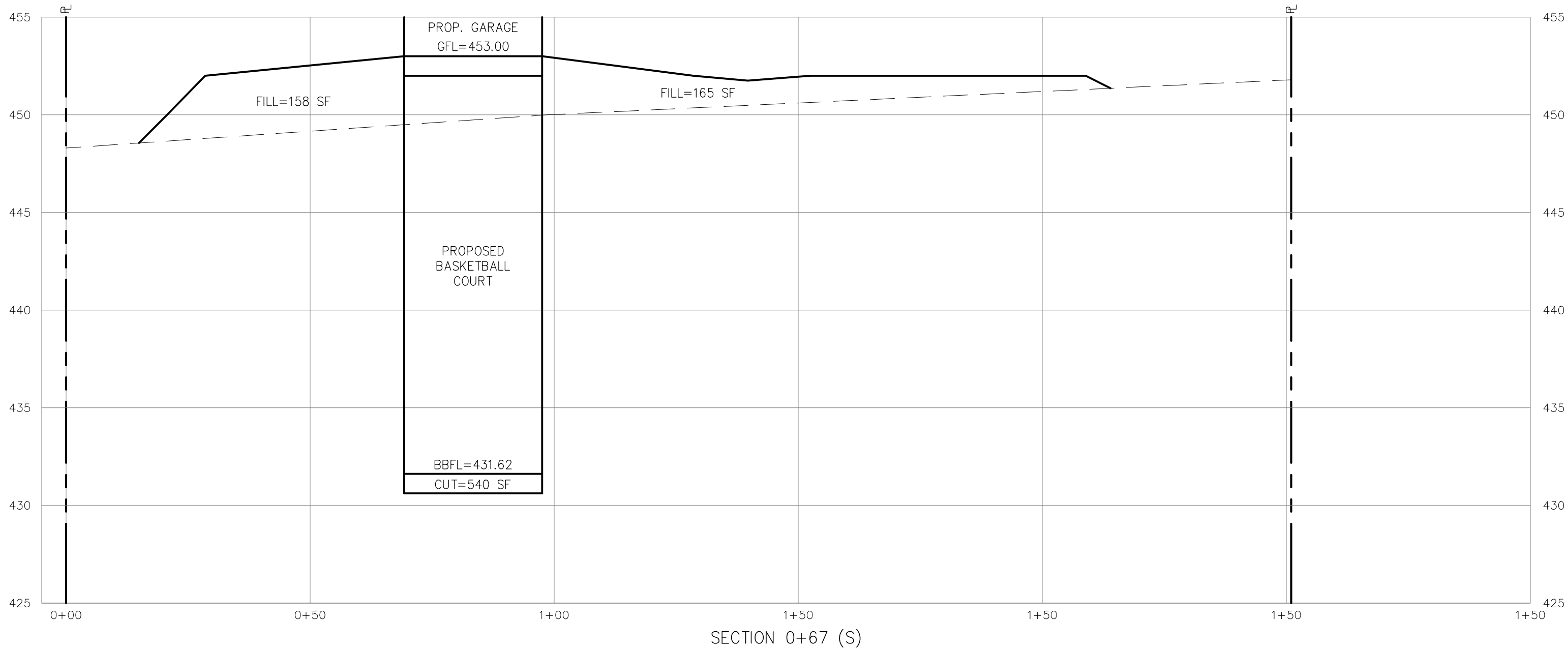
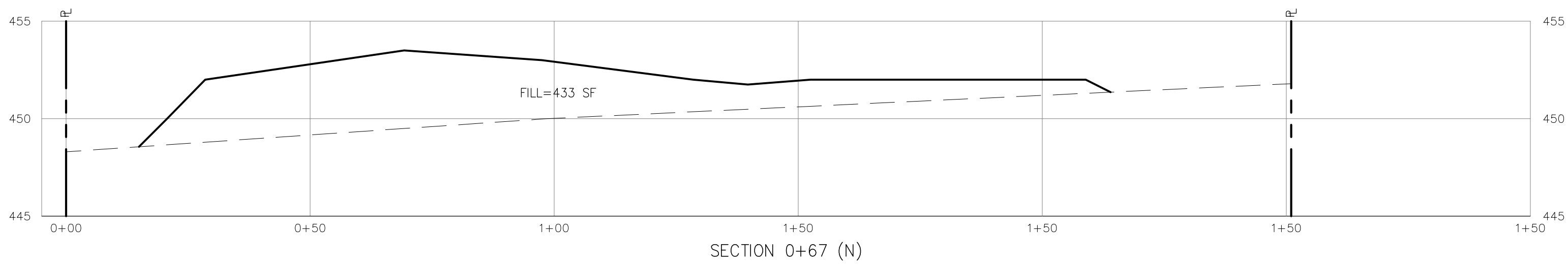
REFERENCES

- V BOOK 1657, PAGE 2468.
- A CERTAIN MAP ENTITLED "FINAL SUBDIVISION PLAN, SECTION IV, RIO VISTA-ALPINE, IN THE BOROUGH OF ALPINE, BERGEN COUNTY, NEW JERSEY, FOR RIO VISTA ASSOCIATES, INC." FILED IN THE B.C.C.O. AS MAP No. 8019.
- BOROUGH OF ALPINE TAX MAPS.

NO.	REVISIONS	DATE	BY	CHKD
EXISTING CONDITIONS PLAN; DETAILS				
LOT 12	PROPOSED SINGLE FAMILY DWELLING No. 8 STONE TOWER DRIVE			BLOCK 21
BOROUGH OF ALPINE		BERGEN COUNTY		NEW JERSEY
APPLICANT: ROCK RIDGE CONSTRUCTION MANAGEMENT, LLC 64 NORTH SUMMIT STREET, SUITE 200 TENAFLY, NJ 07670				
 HUBSCHMAN ENGINEERING, P.A. ENGINEERS - PLANNERS - SURVEYORS 263A S. WASHINGTON AVE., BERGENFIELD, NJ 07621 201-384-5666		DRAWN BY: B.W.		
		CHKD BY MJH		
		SCALE: 1"=20'		
		DRAWING NO. 3972-5		REV. #

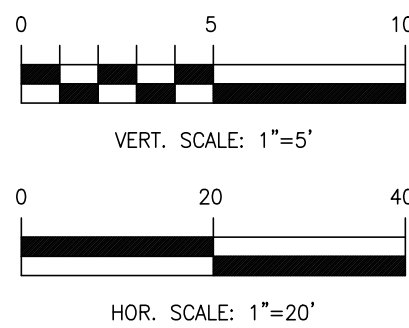
ROBERT J. MUELLER
PROFESSIONAL LAND SURVEYOR
N.J.P.E. No. 37206

MICHAEL J. HUBSCHMAN P.E., P.P.
PROFESSIONAL ENGINEER AND PLANNER
N.J.P.E. No. 29497 N.J.P.P. No. 3200



LEGEND

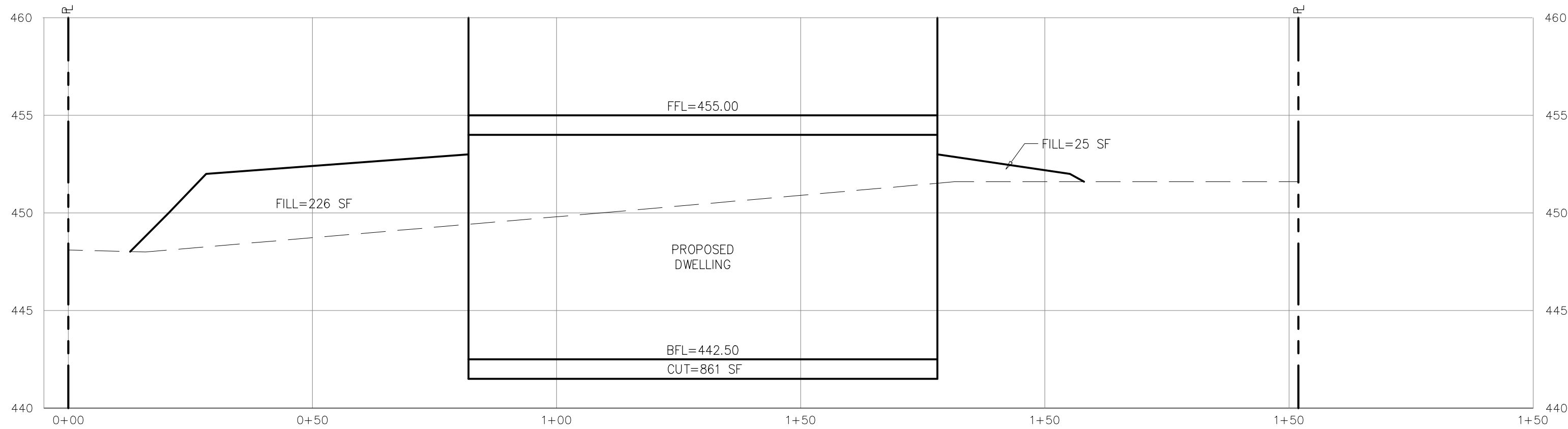
- EXISTING GRADE
- PROPOSED GRADE
- PROPERTY LINE



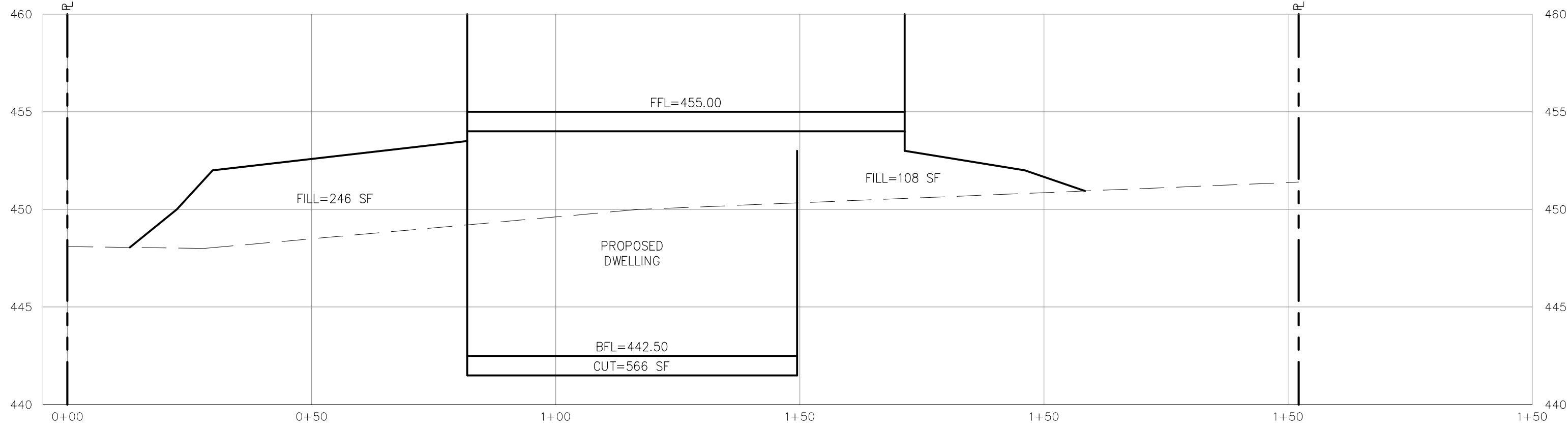
MICHAEL J. HUBSCHMAN P.E., P.P.
PROFESSIONAL ENGINEER AND PLANNER
N.J.P.E. NO. 29497 N.J.P.P. NO. 3200
2-7-22
DATE

NO.		REVISIONS		DATE	BY	CHKD
CROSS SECTIONS & SOIL MOVING PLAN SECTION 0+67 (N) TO SECTION 1+34 (N)						
LOT 12		PROPOSED SINGLE FAMILY DWELLING			BLOCK 21	
		No. 8 STONE TOWER DRIVE				
BOROUGH OF ALPINE		BERGEN COUNTY			NEW JERSEY	
APPLICANT: ROCK RIDGE CONSTRUCTION MANAGEMENT, LLC 64 NORTH SUMMIT STREET, SUITE 200 TENAFLY, NJ 07670						
DRAWN BY:		Y.R.				
CHKD BY:		MJH				
SCALE:		AS SHOWN				
DRAWING NO.		3972-5		REV.		
1 OF 2						

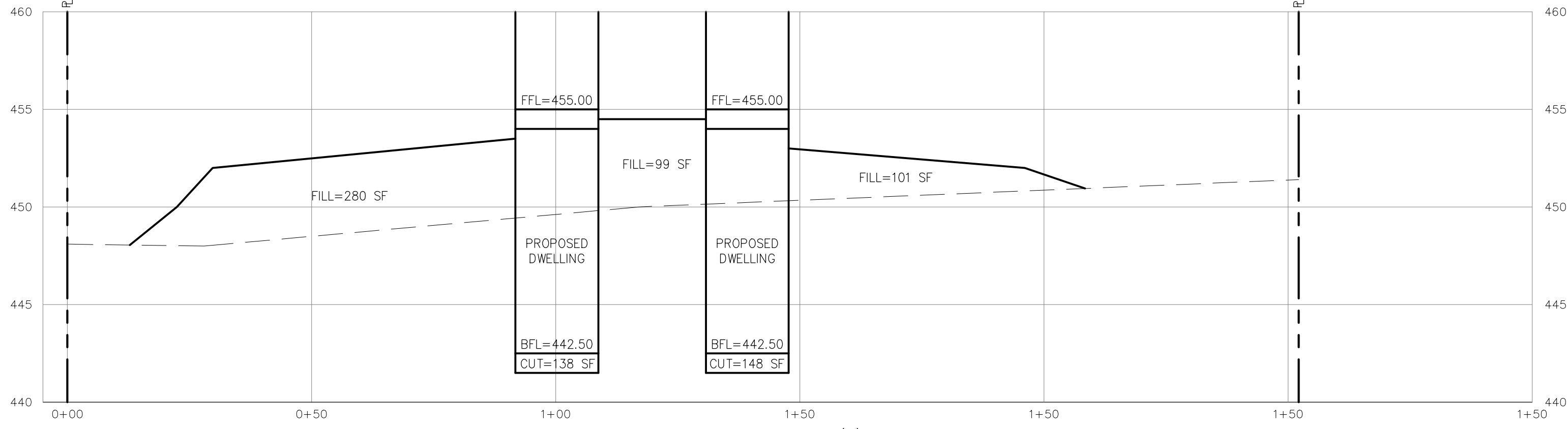
HUBSCHMAN
ENGINEERING,P.A.
ENGINEERS - PLANNERS - SURVEYORS
263A S. WASHINGTON AVE., BERGENFIELD, NJ 07621
201-384-5666



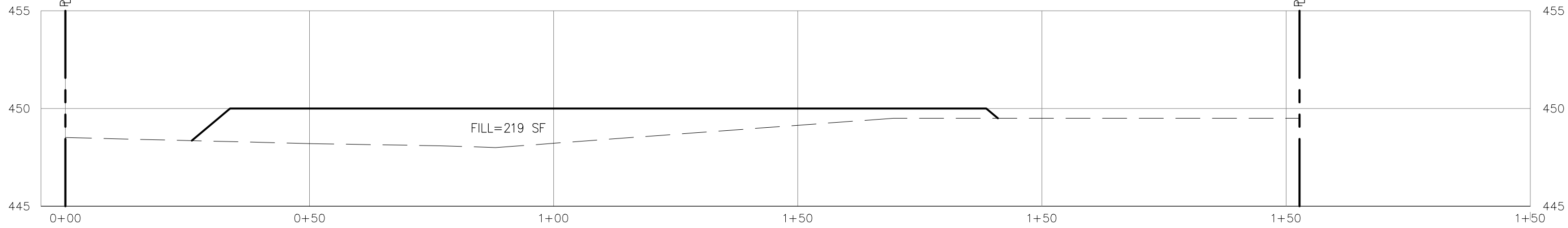
SECTION 1+34 (S)



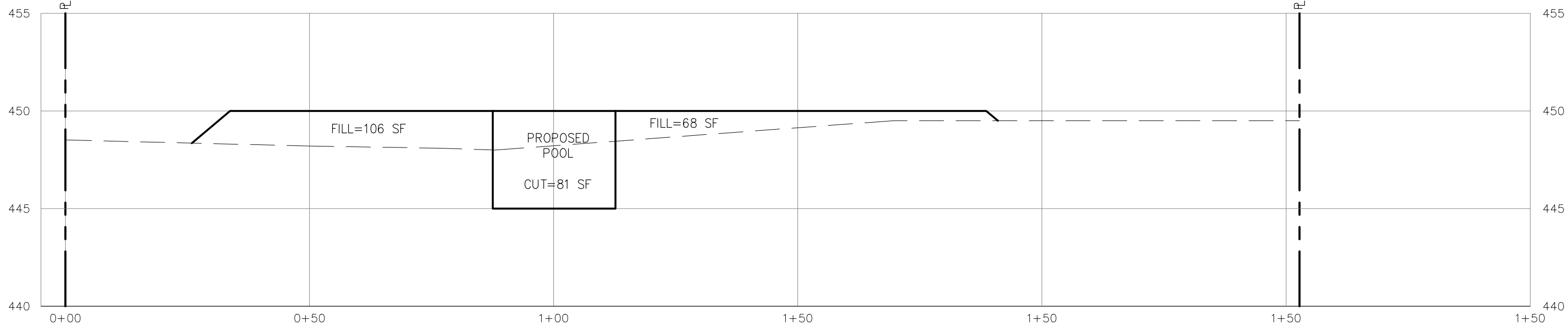
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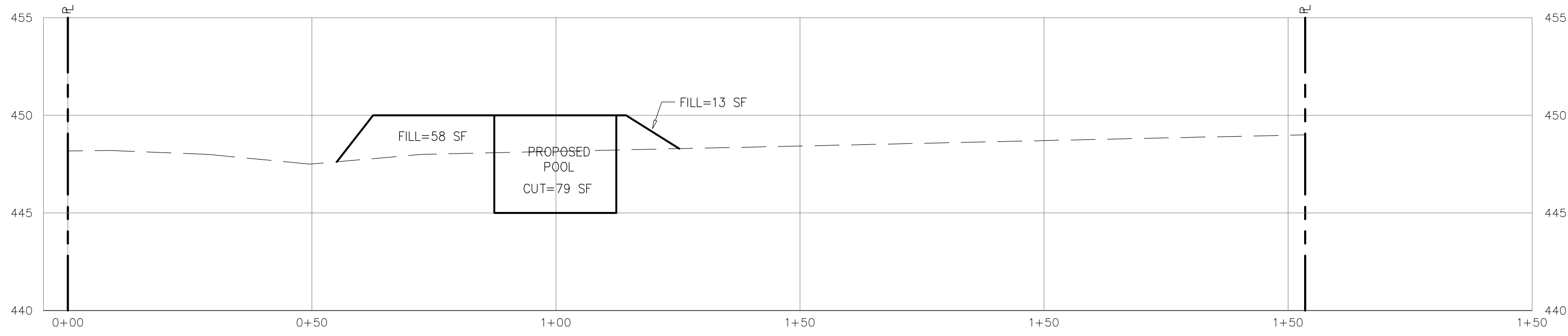
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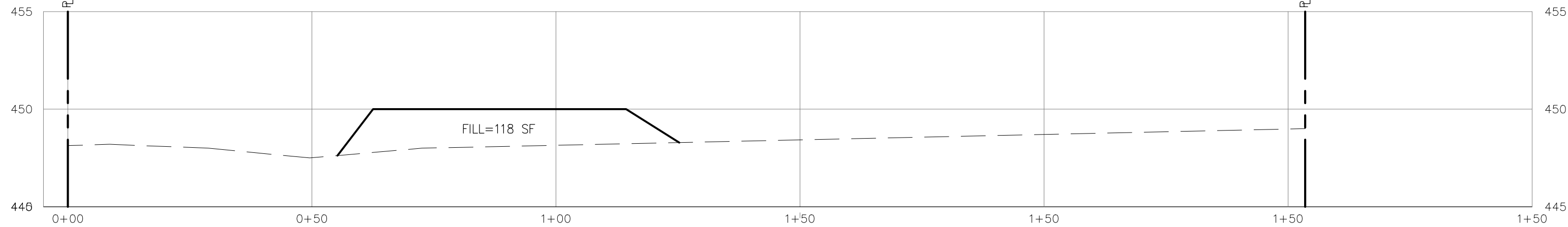
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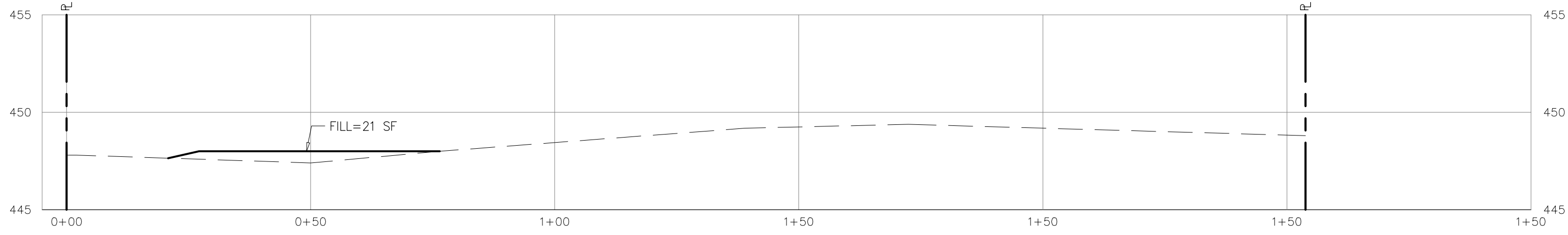
SECTION 1+92 (S)



SECTION 2+47 (N)



SECTION 2+47 (S)



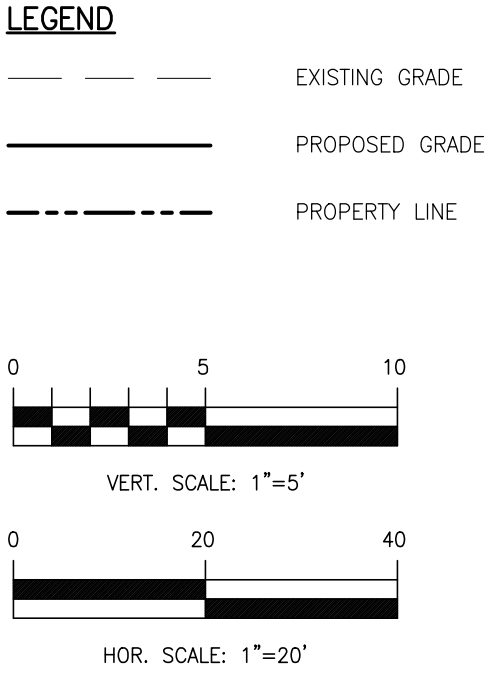
SECTION 2+72 (N)

CUT	Cut (SF)	Average (SF)	Distance (FT)	Volume (CF)
0+00 S	0	0.00	67	0.00
0+67 N	0			
0+67 S	540	963.50	50	48,175.00
1+17 N	1,387			
1+17 S	1,035	1,087.50	17	18,487.50
1+34 N	1,140			
1+34 S	861	713.50	18	12,843.00
1+52 N	566			
1+52 S	286	143.00	40	5,720.00
1+92 N	0			
1+92 S	81	80.00	55	4,400.00
2+47 N	79			
2+47 S	0	0.00	25	0.00
2+72 N	0			
Total				89,625.50 ≈ 3,319 CY

FILL	Fill (SF)	Average (SF)	Distance (FT)	Volume (CF)
0+00 S	0	216.50	67	14,505.50
0+67 N	433			
0+67 S	323	278.00	50	13,900.00
1+17 N	233			
1+17 S	292	277.00	17	4,709.00
1+34 N	262			
1+34 S	251	302.50	18	5,445.00
1+52 N	354			
1+52 S	480	349.50	40	13,980.00
1+92 N	219			
1+92 S	174	122.50	55	6,737.50
2+47 N	71			
2+47 S	118	69.50	25	1,737.50
2+72 N	21			
Total				61,014.50 ≈ 2,260 CY

CUT	
Cultec Chambers	
9 Chambers	
Bed Area	404.25 SF
Bed Depth	5.13 FT
Bed Volume	2,074 CF
Cut Volume	77 CY

Cut	
Proposed Detention System	
Footprint Area	= 2,907 SF
Depth	= 6.00 FT
Cut	= 17,442 CF
	= 646 CY



CROSS SECTIONS & SOIL MOVING PLAN				
SECTION 1+34 (S) TO SECTION 2+72 (N)				
LOT 12 PROPOSED SINGLE FAMILY DWELLING BLOCK 21				
No. 8 STONE TOWER DRIVE				
BOROUGH OF ALPINE BERGEN COUNTY NEW JERSEY				
APPLICANT: ROCK RIDGE CONSTRUCTION MANAGEMENT, LLC				
64 NORTH SUMMIT STREET, SUITE 200				
TENAFLY, NJ 07670				
DRAWN BY: Y.R.				
CHKD BY: MJH				
SCALE: AS SHOWN				
DRAWING NO. 3972-6				
2 OF 2				

MICHAEL J. HUBSCHMAN P.E., P.P.	
PROFESSIONAL ENGINEER AND PLANNER	
N.J.P.E. NO. 29497 N.J.P.P. NO. 3200	
2-7-22	
DATE	

HUBSCHMAN ENGINEERING, P.A.	
ENGINEERS - PLANNERS - SURVEYORS	
263A S. WASHINGTON AVE., BERGENFIELD, NJ 07621	
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