

Ayes – Ledford, Smith, Hunt, Rowell, Mortensen, Skolarus and McCririe. Nays – None. Absent – None.

**6. Consideration of a request to approve the Environmental Impact Assessment (5-19-16) corresponding to a site plan for the proposed Misty Meadows Drive private road located on the west side of S. Latson Road, south of Crooked Lake Road. The private road will serve 9 lots. The request is petitioned by GFG Investments Properties.**

Moved by Skolarus and supported by Smith to approve the environmental impact assessment for Misty Meadows Drive private road with the following conditions: The private road maintenance agreement shall be approved by the township attorney; the applicant shall comply with the private road construction process as described in the May 17, 2016 memo from the Township Engineer. The motion carried unanimously.

**7. Consider request to approve a Resolution of Intent calling a public hearing regarding the creation of a Local Development Finance Authority in the Latson Interchange area.**

Moved by Smith and supported by Ledford to approve the Resolution of Intent setting the public hearing for Monday, July 18, 2016 at 6:30 p.m. at the Genoa Charter Township Hall regarding the creation of a Local Development Finance Authority as requested. The motion carried by roll call vote as follows: Ayes – Ledford, Smith, Hunt, Rowell, Mortensen, Skolarus and McCririe. Nays – None. Absent – None.

**8. Consider request to approve a SMART Zone application to the Michigan Economic Development Corporation for the Latson Interchange Area.**

Moved by Hunt and supported by Skolarus to table until the next regular meeting of the board on June 20, 2016. The motion carried unanimously.

**9. Consider going into closed session to discuss pending litigation pursuant to MCL 15.268 § 8 (e).**

Moved by Skolarus and supported by Rowell to move to closed session at 7:01 p.m. as requested. The motion carried by roll call vote as follows: Ayes – Ledford, Smith, Hunt, Rowell, Mortensen, Skolarus and McCririe. Nays – None. Absent – None.

The closed session was adjourned at the board returned to the open meeting at 7:15.

- Correspondence regarding the 97 acre Herbst Farm was discussed with no action taken by the board.
- St. George Lutheran Church approved the sale of cemetery lots to the township

again sell the property to someone who will develop it. Mr. Moore addressed the concerns of the planner, engineer and the Brighton Area Fire Authority's review letters.

Mr. Borden stated he is recommending approval of the extension; however, he wants the applicant to be aware that if any changes to the ordinance are made in the future, they will need to be addressed and the site plan will need to be amended.

Commissioner Mortensen asked Mr. Moore if he is agreeable of not allowing parking on any street. He stated he is and it will become part of the master deed.

Commissioner Mortensen stated that the item noted in the Brighton Area Fire Authority's letter regarding the on-site water needs and the suggestion of the Township requiring well-filled cisterns should be determined by the developer and property owners and not part of the site plan approval.

The call to the public was made at 6:46 pm with no response.

**Moved** by Commissioner Mortensen, seconded by Commissioner Figurski, to approve the Site Plan Extension for Mountain Top Estates with the following conditions:

- The master deed will be amended to prohibit on-street parking.
- The letter from Ace Civil Engineering, Inc. shall be reviewed by the Township engineer to ensure it meets their requirements.
- The requirement for on-site water, such as cisterns, will be optional and be considered by the developer and home owners.

**The motion carried unanimously**

**OPEN PUBLIC HEARING #2...**Review of an Impact Assessment and Site Plan and for the proposed Misty Meadows Drive private road located on the west side of S. Latson Road, south of Crooked Lake Road. The private road will serve nine lots. The request is petitioned by GFG Investments Properties.

Planning Commission disposition of petition:

- A. Recommendation of Environmental Impact Assessment (3-23-16)
- B. Disposition of Site Plan (4-20-16)

Chairman Brown stated that the Site Plan does not need to be approved by the Planning Commission as it meets the requirements of the Subdivision Act. The private road needs to be approved.

Mr. Brent LaVanway of Boss Engineering and Mr. Guy Genzel, the property owner, were present.

Mr. LaVanway gave a brief history and description of the property and project. He stated the Livingston County Road Commission has approved the location of the road. He addressed the cistern requirement in the Brighton Area Fire Authority's letter. He would like to address this at a later date to determine if the demand is there, and if so, then it can be installed. They will install evergreen trees as a buffer between the road and the property to the south as requested by Mr. Borden. They can submit a plan to staff for their review.

Mr. Borden feels the conditions are present that warrant consideration of a private road not built to Road Commission standards. He also recommended that a "Private Road Maintenance Agreement" be provided. He noted that this was given to the Commissioners by the applicant this evening.

Commissioner Grajek questioned the need for cisterns for homes greater than 3,600 square feet as recommended by the Brighton Area Fire Authority. Commissioner Mortensen stated he has been on the Planning Commission for 20 years and the Township has never required a cistern. He would recommend making this optional for consideration by the developer and future homeowners. Commissioner Grajek wants to ensure that the Township is in compliance with the BAFA. Commissioner Mortensen stated the Fire Authority is making a recommendation.

Ms. VanMarter stated that this comment on the letters from the BAFA for both items on tonight's agenda were a surprise to staff. She has set up a meeting with them to discuss these new requirements and to determine who has jurisdiction and how they should be addressed. She noted that adding municipal water and sewer to these developments could change the rural nature of the Township.

Chairman Brown suggested that the applicant strike the second sentence to the response in Item "F" of the Environmental Impact Assessment. Mr. LaVanway agrees.

**Moved** by Commissioner McManus, seconded by Commissioner Figurski, to recommend to the Township Board approval of the Environmental Impact Assessment for Misty Meadows dated March 23, 2016 with the removal of the second sentence of the response to Item "F". **The motion carried unanimously.**

**Moved** by Commissioner Mortensen, seconded by Commissioner Lowe, to approve the Site Plan for Misty Meadows dated April 20, 2016 with the following conditions:

- The Private Road Maintenance Agreement provided this evening shall be reviewed and approved by the Township Attorney.
- Evergreen plantings shall be provided along the roadway adjacent to the road at the southeast corner of the property and reviewed and approved by Township Staff.
- The requirement in the Brighton Area Fire Authority's letter dated May 14, 2016, Paragraph 1, regarding the water related fire suppression issues are to be regarded as optional by the Township, subject to review by Township Staff and the Township Attorney.

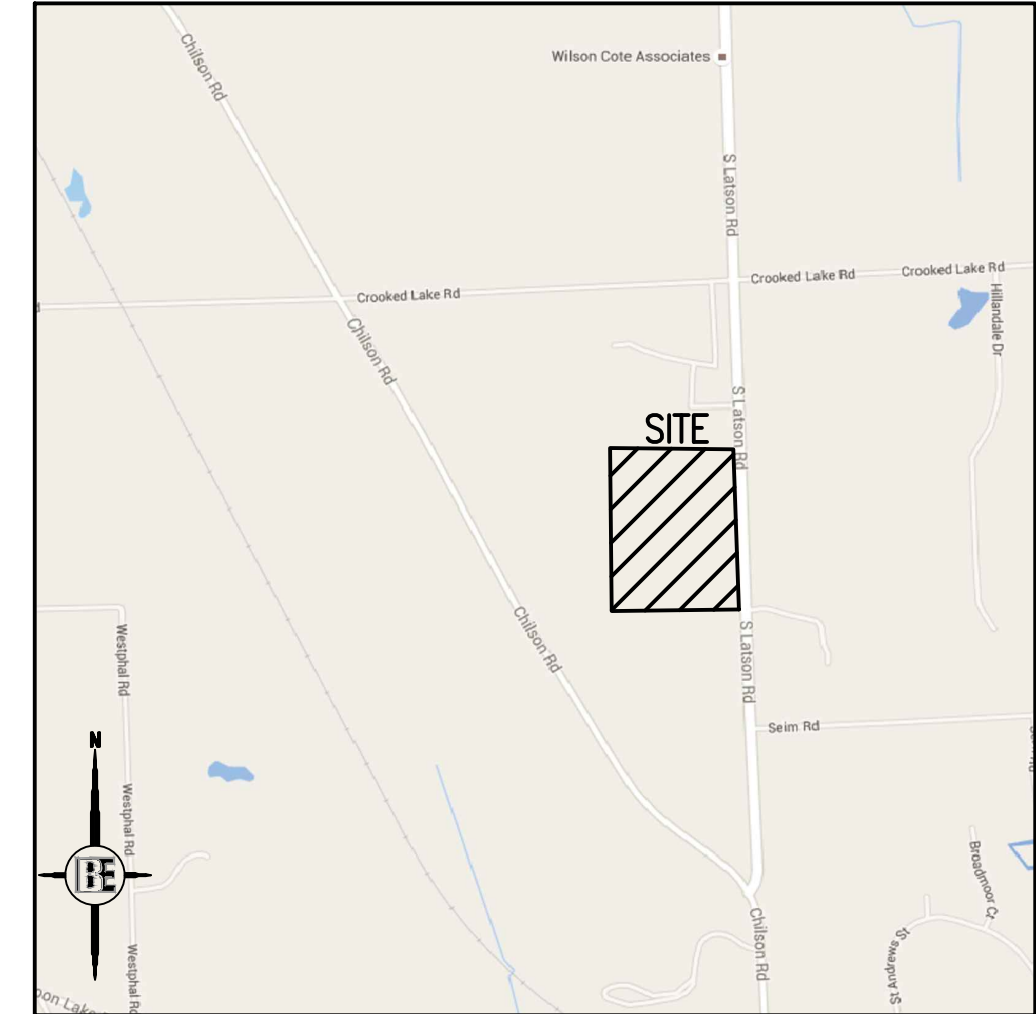
**The motion carried unanimously.**

**Administrative Business:**

- Staff Report

Mr. VanMarter stated there will be two items on next month's agenda.

# SITE PLAN / CONSTRUCTION PLANS FOR MISTY MEADOW DRIVE PART OF NORTHEAST QUARTER, SECTION 20, T2N-R5E GENOA TOWNSHIP, LIVINGSTON COUNTY, MI



**LOCATION MAP**  
NO SCALE

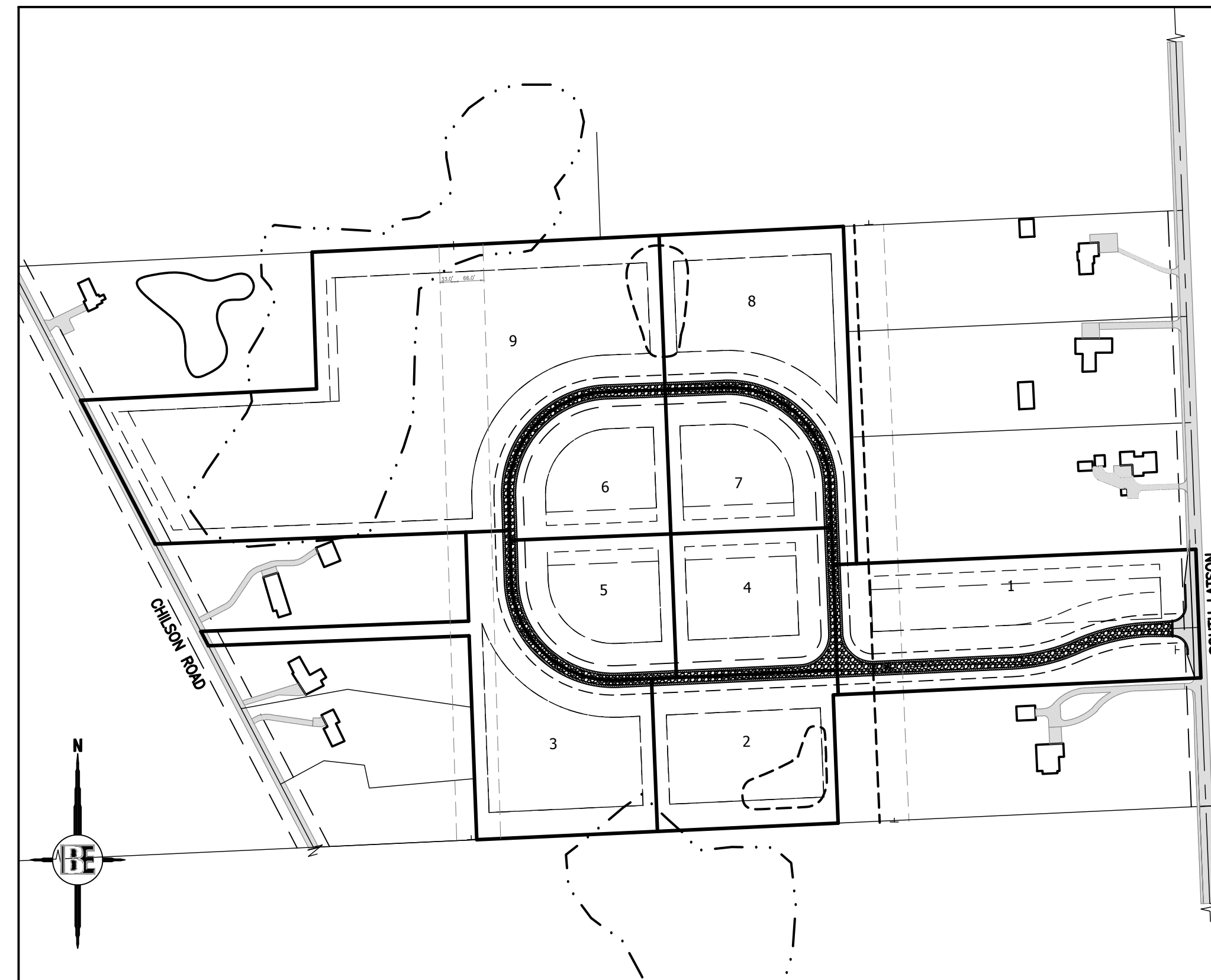
**PROPERTY DESCRIPTION:**

Part of the Northeast 1/4 of Section 20, T2N-R5E, Genoa Township, Livingston County, Michigan, more particularly described as follows: Commencing at the East 1/4 Corner of Section 20, thence along the centerline of Nixon Road (66 foot wide Right of Way) and the East line of Section 20, N 00°02'53" W, 289.01 feet, to the POINT OF BEGINNING of the Parcel to be described, thence S 89°33'31" W, 828.66 feet, thence S 00°02'05" E, 288.87 feet, thence along the East-West 1/4 line of Section 20, S 89°34'08" W (recorded as S 89°35'15" W), 814.30 feet, thence N 00°02'50" E, 459.34 feet (recorded as N 00°03'00" E, 458.81 feet), thence N 89°58'17" W (recorded as West), 587.38 feet, thence along the centerline of Chilson Road (66 foot wide Right of Way), N 25°18'00" W, 36.50 feet, thence S 89°58'17" E (recorded as East), 603.19 feet, thence N 00°21'50" E (recorded as N 00°22'00" E), 200.42 feet, thence N 89°58'31" W, 699.20 feet (recorded as West, 699.21 feet), thence along the centerline of Chilson Road (66 foot wide Right of Way), N 25°18'00" W, 364.83 feet, thence N 89°26'00" E, 531.82 feet, thence N 00°21'50" E, 307.94 feet, thence N 89°30'53" E, 1197.11 feet, thence S 00°02'42" E, 758.09 feet (recorded as S 00°01'34" E, 759.50 feet), thence N 89°40'09" E, 764.35 feet (recorded as N 89°44'40" E, 765.00 feet), thence along the centerline of Nixon Road and the East line of Section 20, S 00°02'53" E, 289.84 feet, to the POINT OF BEGINNING, containing 40.34 acres, more or less, and subject to the rights of the public over the existing Nixon Road and Chilson Road. Also subject to any other easements or restrictions of record.

Bearings were established from a Previous Survey by Boss Engineering, Job No. 3600, dated 1-26-73, as recorded in Liber 633, Page 194, Livingston County Records.

**CONSTRUCTION NOTES**

- THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING NOTES AND ANY WORK INVOLVED SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
1. THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.
  2. DO NOT SCALE THESE DRAWINGS AS IT IS A REPRODUCTION AND SUBJECT TO DISTORTION.
  3. A GRADING PERMIT FOR SOIL EROSION-SEDIMENTATION CONTROL SHALL BE OBTAINED FROM THE GOVERNING AGENCY PRIOR TO THE START OF CONSTRUCTION.
  4. IF DUST PROBLEM OCCURS DURING CONSTRUCTION, CONTROL WILL BE PROVIDED BY AN APPLICATION OF WATER, EITHER BY SPRINKLER OR TANK TRUCK.
  5. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS AND SPECIFICATIONS.
  6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED TOWNSHIP, COUNTY, AND STATE OF MICHIGAN PERMITS.
  7. PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES SHALL BE MAINTAINED IN A SAFE, ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED.
  8. ALL BARRIER-FREE FEATURES SHALL BE CONSTRUCTED TO MEET ALL LOCAL, STATE AND A.D.A. REQUIREMENTS.
  9. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
  10. THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHTS-OF-WAY, PUBLIC OR PRIVATE, PRIOR TO THE START OF CONSTRUCTION.
  11. THE CONTRACTOR SHALL COORDINATE WITH ALL OWNERS TO DETERMINE THE LOCATION OF EXISTING LANDSCAPING, IRRIGATION LINES & PRIVATE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING LANDSCAPING, IRRIGATION LINES, AND PRIVATE UTILITY LINES.
  12. THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT.
  13. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
  14. THE CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
  15. THE CONTRACTOR SHALL CALL MISS DIG A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
  16. ALL EXCAVATION UNDER OR WITHIN 3 FEET OF PUBLIC PAVEMENT, EXISTING OR PROPOSED SHALL BE BACKFILLED AND COMPACTED WITH SAND (MDOT CLASS II).
  17. ALL PAVEMENT REPLACEMENT AND OTHER WORKS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWNSHIP, INCLUDING THE LATEST MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
  18. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
  19. NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO THE MATERIAL SHORTAGES OR RESPONSIBLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE SPECIFICATION OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OR EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
  20. DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT.
  21. IF WORK EXTENDS BEYOND NOVEMBER 15, NO COMPENSATION WILL BE DUE TO THE CONTRACTOR FOR ANY WINTER PROTECTION MEASURES THAT MAY BE REQUIRED BY THE ENGINEER.
  22. NO TREES ARE TO BE REMOVED UNTIL MARKED IN THE FIELD BY THE ENGINEER.
  23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE CONSTRUCTION LIMITS INCLUDING BUT NOT LIMITED TO EXISTING FENCE, LAWN, TREES AND SHRUBBERY.
  24. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE NORMAL CONSTRUCTION LIMITS OF THE PROJECT SHALL BE SODDED OR SEEDDED AS SPECIFIED OR DIRECTED BY THE ENGINEER.
  25. ALL ROOTS, STUMPS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND THE HOLE BACKFILLED WITH SUITABLE MATERIAL. WHERE GRADE CORRECTION IS REQUIRED, THE SUBGRADE SHALL BE CUT TO CONFORM TO THE CROSS-SECTION AS SHOWN IN THE PLANS.
  26. TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SIGNS AND TRAFFIC CONTROL DEVICES. FLAG PERSONS SHALL BE PROVIDED BY THE CONTRACTOR IF DETERMINED NECESSARY BY THE ENGINEER. ALL SIGNS SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AT NO COST TO THE TOWNSHIP. NO WORK SHALL BE DONE UNLESS THE APPROPRIATE TRAFFIC CONTROL DEVICES ARE IN PLACE.
  27. ALL DEMOLISHED MATERIALS AND SOIL SPOILS SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST, AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
  28. AFTER REMOVAL OF TOPSOIL, THE SUBGRADE SHALL BE COMPACTED TO 95% OF ITS UNIT WEIGHT.
  29. ALL GRADING IN THE PLANS SHALL BE DONE AS PART OF THIS CONTRACT. ALL DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SUBGRADE PRIOR TO COMPACTING.
  30. NO SEEDING SHALL BE DONE AFTER OCTOBER 15 WITHOUT APPROVAL OF THE ENGINEER.
  31. ANY EXISTING APPURTENANCES SUCH AS MANHOLES, GATE VALVES, ETC. SHALL BE ADJUSTED TO THE PROPOSED GRADE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
  32. SOIL EROSION MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL VEGETATION HAS BEEN RE-ESTABLISHED.
  33. ALL PERMANENT SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE MICHIGAN MUTCD MANUAL AND SHALL BE INCIDENTAL TO THE CONTRACT.



**OVERALL SITE MAP**  
NO SCALE

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS
3	SITE PLAN
4	GRADING PLAN
5	DRAINAGE PLAN
6	SOIL EROSION CONTROL PLAN
7	CONSTRUCTION DETAILS
8	STORM SEWER CALCULATIONS
9	PRIVATE ROAD PROFILE - STA 0+00 TO STA 11+50
10	PRIVATE ROAD PROFILE - STA 11+50 TO STA 20+00
11	PRIVATE ROAD PROFILE - STA 20+00 TO 26+00
12	PRIVATE ROAD PROFILE - STA 26+00 TO INTERSECTION
13	STORM SEWER PROFILE
14	STORM SEWER PROFILE

**MISTY MEADOW**

**PREPARED FOR:**

**GFG INVESTMENT PROPERTIES, LLC**  
15264 BAILEY  
TAYLOR, MI 48180  
CONTACT: GUY GENZEL  
PHONE: (734) 795-0078

**CONTRACTOR:**

**BHI CONTRACTING INC.**  
2365 FOREST HILLS DR.  
LAKE ORION, MI 48359  
CONTACT: STEVE BACIK  
PHONE: (248) 249-7935

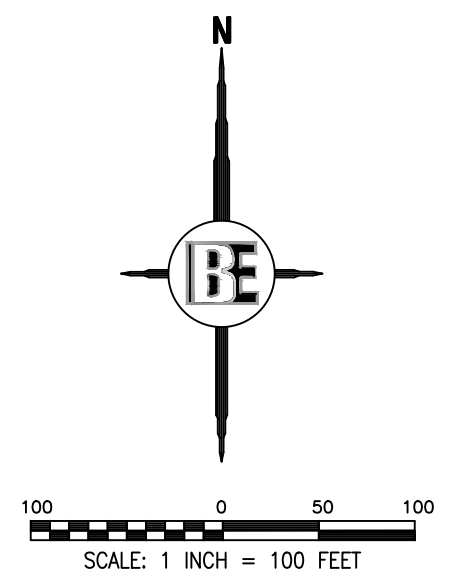
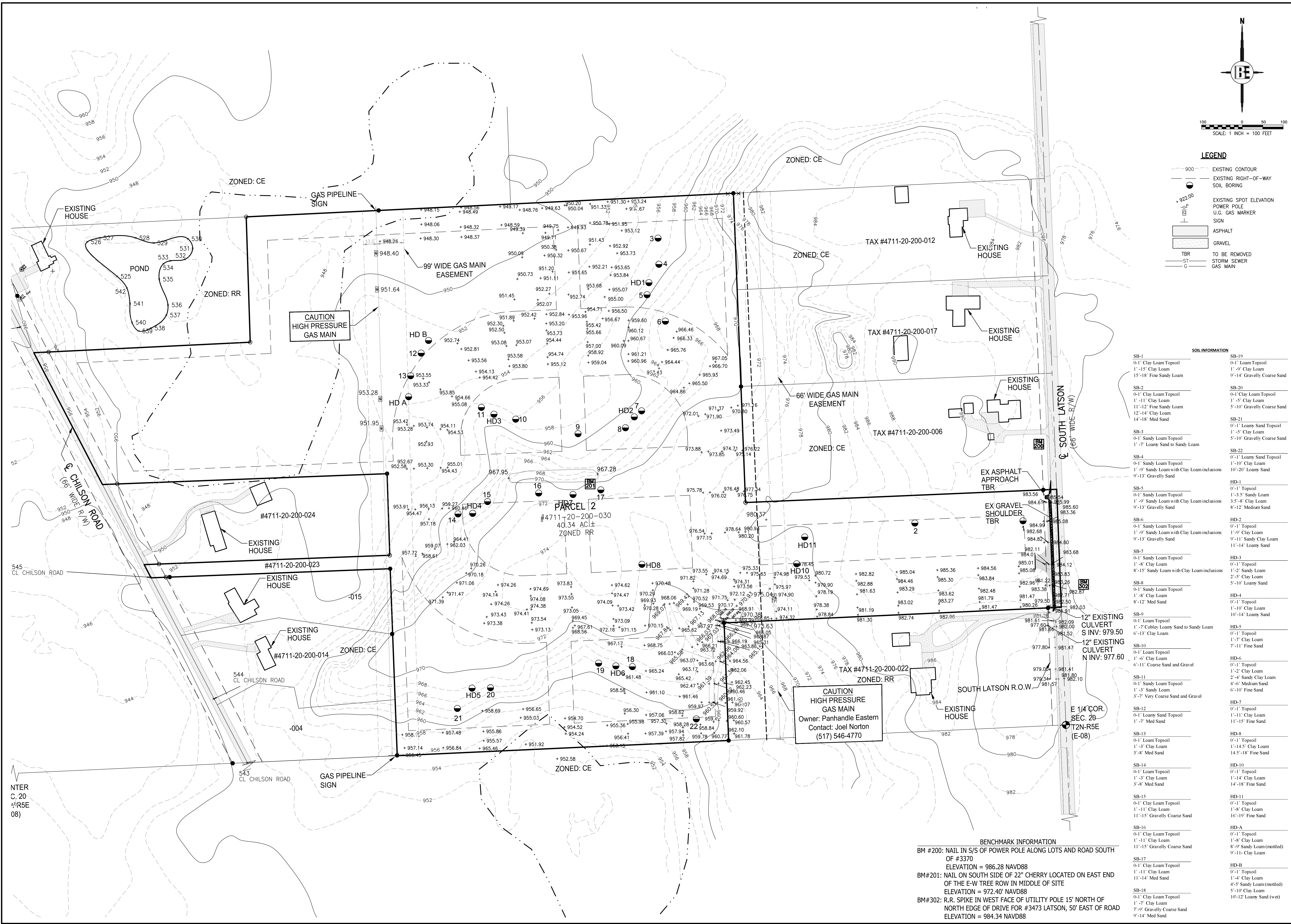
**PREPARED BY:**

**BEBOSS**  
*Engineering*  
Engineers Surveyors Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
800.246.6735 FAX 517.548.1670

8	TE	CONCRETE SLAB PER UTILITIES	7/13/17	16					
7	KS	STORM SEWER PER CLIENT	02/23/17	15					
6	KS	STORM SEWER PER L.C.D.C.	10/27/16	14					
5	KS	DRAINAGE EASEMENT PER L.C.R.C.	10/14/16	13					
4	KS	PHASING	8/5/16	12					
3	KS	L.C.R.C. REVIEW	7/1/16	11					
2	KS	TOWNSHIP REVIEW	5/19/16	10					
1	KS	TOWNSHIP REVIEW	4/20/16	9	JA	GRAVEL RD PER CLIENT	1/25/19	ISSUE DATE: 03/23/16	
NO	BY	CK	REVISION	DATE	NO	BY	CK	REVISION	DATE

**INDEMNIFICATION STATEMENT**

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.



**LEGEND**

- 900 --- EXISTING CONTOUR
- EXISTING RIGHT-OF-WAY
- EXISTING SPOT ELEVATION
- U.G. GAS MARKER SIGN
- ▨ ASPHALT
- ▩ GRAVEL
- TBR TO BE REMOVED
- ST STORM SEWER
- G GAS MAIN

**SOIL INFORMATION**

SB-1 0-1' Clay Loam Topsoil 1'-15' Clay Loam 15'-18' Fine Sandy Loam	SB-19 0-1' Loam Topsoil 1'-9' Clay Loam 9'-14' Gravelly Coarse Sand
SB-2 0-1' Clay Loam Topsoil 1'-11' Clay Loam 11'-12' Fine Sandy Loam 12'-14' Clay Loam 14'-18' Med Sand	SB-20 0-1' Clay Loam Topsoil 1'-5' Clay Loam 5'-10' Gravelly Coarse Sand
SB-3 0-1' Sandy Loam Topsoil 1'-7' Loamy Sand to Sandy Loam	SB-21 0-1' Loamy Sand Topsoil 1'-5' Clay Loam 5'-10' Gravelly Coarse Sand
SB-4 0-1' Sandy Loam Topsoil 1'-9' Sandy Loam with Clay Loam inclusions 9'-13' Gravelly Sand	SB-22 0-1' Loamy Sand Topsoil 1'-10' Clay Loam 10'-20' Loamy Sand
SB-5 0-1' Sandy Loam Topsoil 1'-8' Clay Loam 1'-9' Sandy Loam with Clay Loam inclusions 9'-13' Gravelly Sand	HD-1 0-1' Topsoil 1'-3' Sandy Loam 3'-5' Clay Loam 8'-12' Medium Sand
SB-6 0-1' Sandy Loam Topsoil 1'-9' Sandy Loam with Clay Loam inclusions 9'-13' Gravelly Sand	HD-2 0-1' Topsoil 1'-9' Clay Loam 9'-11' Sandy Clay Loam 11'-14' Loamy Sand
SB-7 0-1' Sandy Loam Topsoil 1'-8' Clay Loam 8'-15' Sandy Loam with Clay Loam inclusions	HD-3 0-1' Topsoil 1'-2' Sandy Loam 2'-5' Clay Loam 5'-10' Loamy Sand
SB-8 0-1' Sandy Loam Topsoil 1'-8' Clay Loam 8'-12' Med Sand	HD-4 0-1' Topsoil 1'-10' Clay Loam 10'-14' Loamy Sand
SB-9 0-1' Loam Topsoil 1'-7' Cobble Loamy Sand to Sandy Loam 6'-13' Clay Loam	HD-5 0-1' Topsoil 1'-7' Clay Loam 7'-11' Fine Sand
SB-10 0-1' Loam Topsoil 1'-6' Clay Loam 6'-11' Coarse Sand and Gravel	HD-6 0-1' Topsoil 1'-2' Clay Loam 2'-4' Sandy Clay Loam 4'-6' Medium Sand 6'-10' Fine Sand
SB-11 0-1' Sandy Loam Topsoil 1'-3' Sandy Loam 3'-7' Very Coarse Sand and Gravel	HD-7 0-1' Topsoil 1'-11' Clay Loam 11'-15' Fine Sand
SB-12 0-1' Loam Topsoil 1'-3' Clay Loam 3'-8' Med Sand	HD-8 0-1' Topsoil 1'-14.5' Clay Loam 14.5'-18' Fine Sand
SB-13 0-1' Loam Topsoil 1'-3' Clay Loam 3'-8' Med Sand	HD-10 0-1' Topsoil 1'-14' Clay Loam 14'-18' Fine Sand
SB-14 0-1' Loam Topsoil 1'-3' Clay Loam 3'-8' Med Sand	HD-11 0-1' Topsoil 1'-8' Clay Loam 16'-19' Fine Sand
SB-15 0-1' Clay Loam Topsoil 1'-11' Clay Loam 11'-15' Gravelly Coarse Sand	HD-A 0-1' Topsoil 1'-8' Clay Loam 8'-9' Sandy Loam (mottled) 9'-11' Clay Loam
SB-16 0-1' Clay Loam Topsoil 1'-11' Clay Loam 11'-15' Gravelly Coarse Sand	HD-B 0-1' Topsoil 1'-11' Clay Loam 11'-14' Med Sand
SB-17 0-1' Clay Loam Topsoil 1'-11' Clay Loam 11'-14' Med Sand	SB-18 0-1' Clay Loam Topsoil 1'-7' Clay Loam 7'-9' Gravelly Coarse Sand 9'-14' Med Sand

**BENCHMARK INFORMATION**

BM #200: NAIL IN S/S OF POWER POLE ALONG LOTS AND ROAD SOUTH OF #3370  
ELEVATION = 986.28 NAVD88

BM#201: NAIL ON SOUTH SIDE OF 22" CHERRY LOCATED ON EAST END OF THE E-W TREE ROW IN MIDDLE OF SITE  
ELEVATION = 972.40' NAVD88

BM#302: R.R. SPIKE IN WEST FACE OF UTILITY POLE 15' NORTH OF NORTH EDGE OF DRIVE FOR #3473 LATSON, 50' EAST OF ROAD  
ELEVATION = 984.34 NAVD88

THE LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTH OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CONDITIONS APPEAR OR IF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

**BEFORE YOU DIG CALL MISS DIG**  
1-800-487-3872

**BEBOSS Engineering**  
Engineers Surveyors Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
800.246.6735 FAX 517.548.1670

**MISTY MEADOW**  
PREPARED FOR: **GFG INVESTMENT PROPERTIES, LLC**  
15264 BAILEY TAYLOR, MI 48180 (734) 795-0078

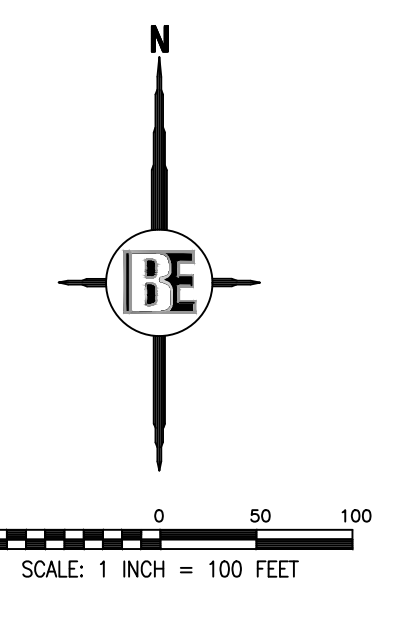
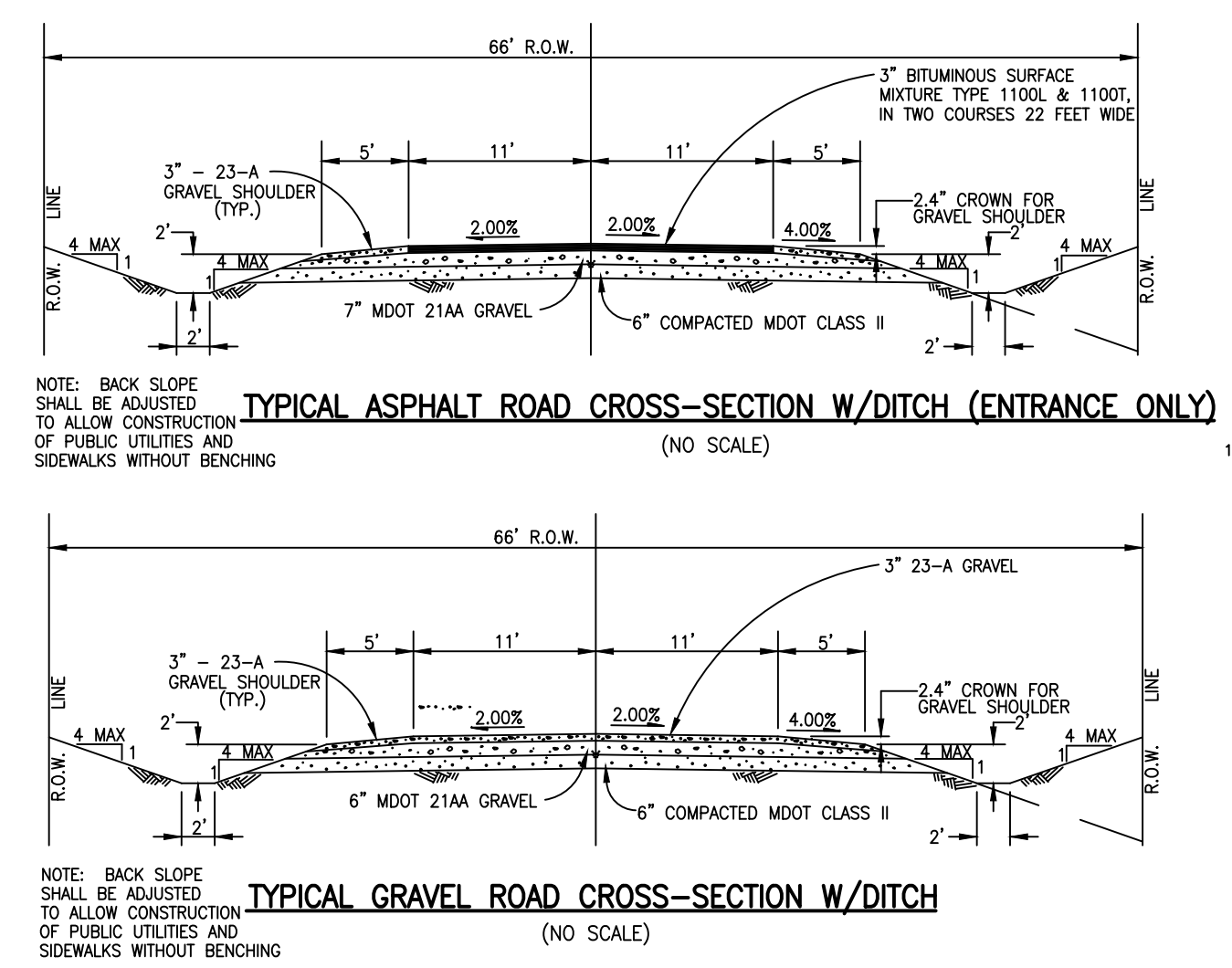
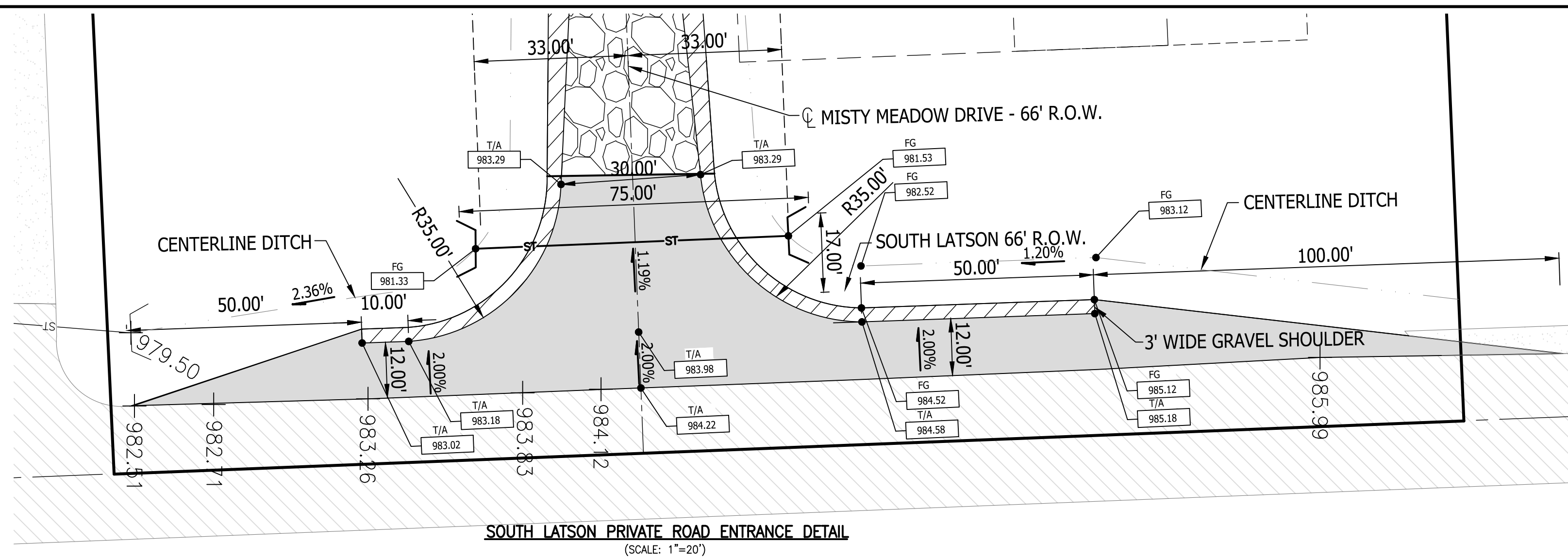
**EXISTING CONDITIONS**

DESIGNED BY:	KS
DRAWN BY:	KS
CHECKED BY:	KS
SCALE	1" = 100'
JOB NO.	15-179
DATE	03/23/16
SHEET NO.	2

REVISION PER DATE

NO	BY	DATE
1	KS	7/7/16
2	KS	5/19/16
3	KS	4/20/16

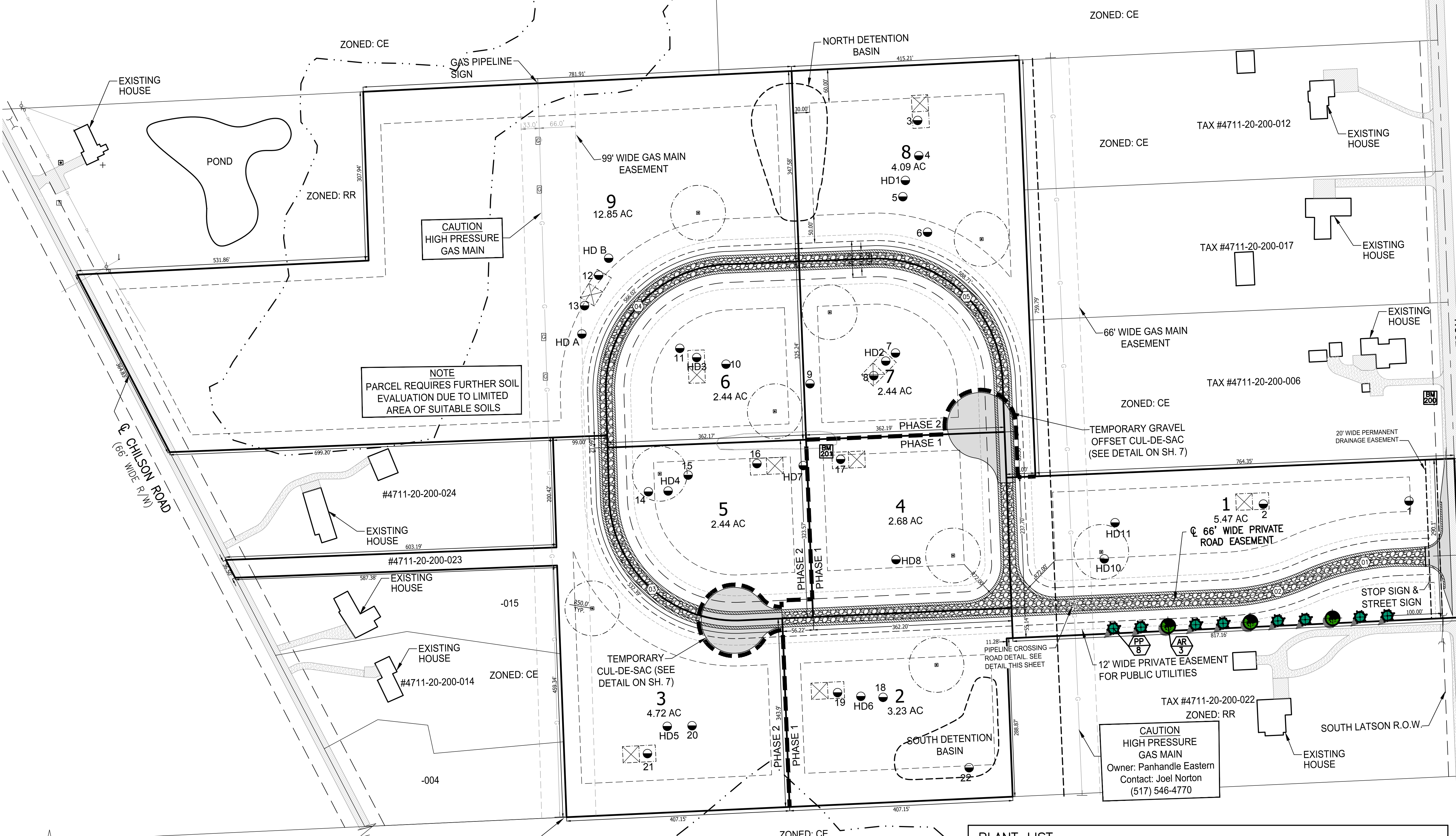
**BEBOSS Engineering**



**LEGEND**

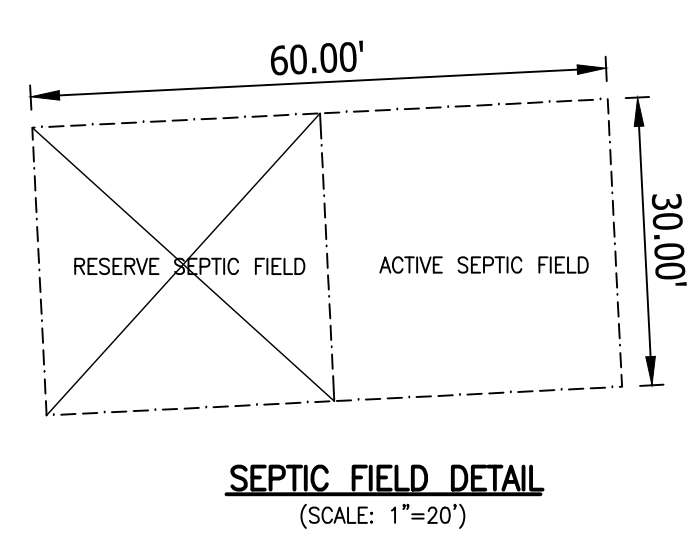
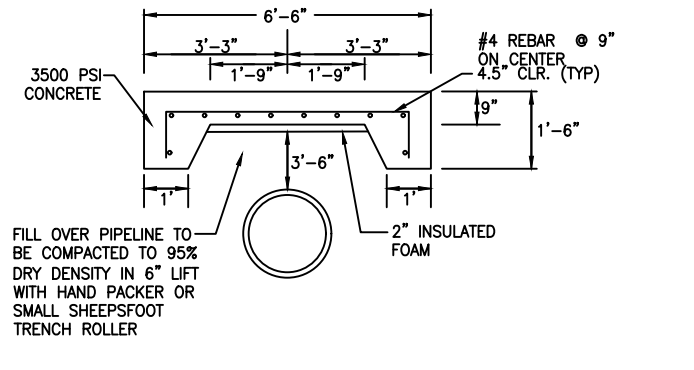
PROPOSED (PR)	EXISTING (EX)	LEGEND
		EXISTING RIGHT-OF-WAY
		SEPTIC FIELD ACTIVE/RESERVE
		WELL
		ASPHALT
		GRAVEL
		WETLAND
		DETENTION/RETENTION BASIN
		HORIZONTAL CURVE
		GAS MAIN
		EVERGREEN TREE
		DECIDUOUS TREE
		PHASE LINE

- SITE PLAN NOTES**
- NO PARKING SHALL BE PERMITTED ON THE ROAD
  - BUILDINGS SHALL PROVIDE ADDRESS NUMBERS AT A MINIMUM 4" IN HEIGHT TO BE VISIBLE FROM THE ROAD.
  - ACCESS ROADS SHALL BE CONSTRUCTED TO BE CAPABLE OF SUPPORTING AT LEAST 75,000 LBS.
  - 15 FT. OF OVERHEAD TREE CLEARANCE TO BE PROVIDED WITHIN THE WIDTH OF THE PAVEMENT.
  - STOP SIGN AND STREET SIGN TO BE IN ACCORDANCE WITH THE MICHIGAN UNIFORM TRAFFIC CONTROL DEVICES AND CONFORM TO ROAD COMMISSION REQUIREMENTS.
  - STREET NAME HAS BEEN SUBMITTED TO THE ROAD COMMISSION AND IS ACCEPTABLE.



**SITE DATA**

PARCEL NUMBER	4711-20-200-030
ZONING	RR, RURAL RESIDENTIAL
SITE AREA	40.34 AC
SETBACKS	REQUIRED
FRONT	50 FT.
SIDE	30 FT.
REAR	60 FT.
MINIMUM LOT AREA	2 ACRES
MINIMUM LOT WIDTH	200 FT.
RIGHT-OF-WAY	66 FT.



**HORIZONTAL CURVE DATA**

CURVE #	RADIUS (FT)	ARC LENGTH (FT)	PC (STA)	PT (STA)
01	450	172.05	0+98.37	2+67.42
02	400	150.15	2+67.42	4+17.57
03	230	364.51	13+04.56	16+69.18
04	230	359.64	18+58.90	22+18.54
05	230	361.28	24+82.22	28+43.50

E 1/4 COR. SEC. 20 T2N-R5E (E-08)

**BENCHMARK INFORMATION**

BM #200: NAIL IN S/S OF POWER POLE ALONG LOTS AND ROAD SOUTH OF #3370  
ELEVATION = 986.28 NAVD88

BM #201: NAIL ON SOUTH SIDE OF 22" CHERRY LOCATED ON EAST END OF THE E-W TREE ROW IN MIDDLE OF SITE  
ELEVATION = 972.40' NAVD88

BM #302: R.R. SPIKE IN WEST FACE OF UTILITY POLE 15' NORTH OF NORTH EDGE OF DRIVE FOR #3473 LATSON, 50' EAST OF ROAD  
ELEVATION = 984.34 NAVD88

**PLANT LIST**

KEY	QUAN.	BOTANICAL NAME	COMMON NAME	SIZE	REMARK
TREES					
PP	11	<i>Picea pungens</i> var. 'Glauca'	Colorado Blue Spruce	6'-8' ht.	B-B
AR	3	<i>Acer rubrum</i>	Red Maple	2.5" cal.	B-B

CENTER SEC. 20 T2N-R5E (D-08)

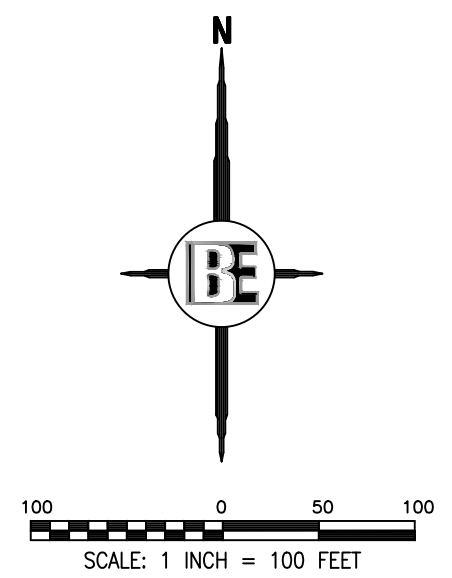
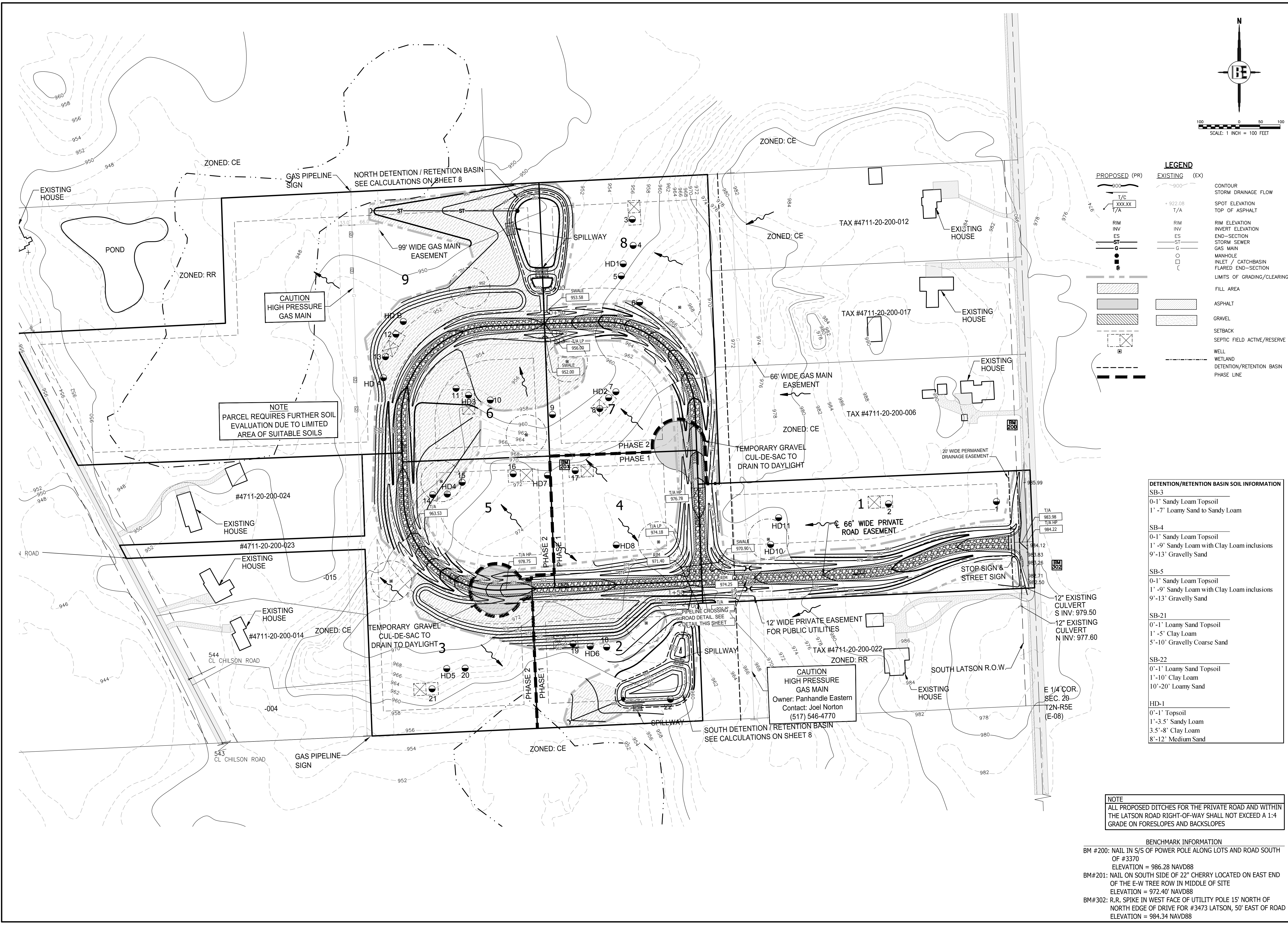
**BEBOSS Engineering**  
Engineers Surveyors Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
800.246.6735 FAX 517.548.1670

**MISTY MEADOW**  
FOR **GFG INVESTMENT PROPERTIES, LLC**  
15264 BAILEY TAYLOR, MI 48180 (734) 795-0078

**SITE PLAN**

NO.	DATE	BY	REVISION PER
1	1/25/19	KS	DESIGNED BY
2	10/27/16	KS	DRAWN BY
3	10/14/16	KS	CHECKED BY
4	9/5/16	KS	SCALE 1" = 100'
5	7/7/16	KS	JOB NO. 15-179
6	5/19/16	KS	DATE 03/23/16
7	5/19/16	KS	SHEET NO.
8	4/20/16	KS	

**BOSS Engineering**



**LEGEND**

PROPOSED (PR)	EXISTING (EX)	DESCRIPTION
900	900	CONTOUR
---	---	STORM DRAINAGE FLOW
---	---	SPOT ELEVATION
T/A	T/A	TOP OF ASPHALT
RIM	RIM	RIM ELEVATION
INV	INV	INVERT ELEVATION
ES	ES	END-SECTION
ST	ST	STORM SEWER
G	G	GAS MAIN
○	○	MANHOLE
□	□	INLET / CATCHBASIN
---	---	FLARED END-SECTION
---	---	LIMITS OF GRADING/CLEARING
---	---	FILL AREA
---	---	ASPHALT
---	---	GRAVEL
---	---	SETBACK
---	---	SEPTIC FIELD ACTIVE/RESERVE
---	---	WELL
---	---	WETLAND
---	---	DETENTION/RETENTION BASIN
---	---	PHASE LINE

**DETENTION/RETENTION BASIN SOIL INFORMATION**

SB-3	SB-4	SB-5	SB-21	SB-22	HD-1
0'-1' Sandy Loam Topsoil	0'-1' Sandy Loam Topsoil	0'-1' Sandy Loam Topsoil	0'-1' Loamy Sand Topsoil	0'-1' Loamy Sand Topsoil	0'-1' Topsoil
1'-7' Loamy Sand to Sandy Loam	1'-9' Sandy Loam with Clay Loam inclusions	1'-9' Sandy Loam with Clay Loam inclusions	1'-5' Clay Loam	1'-10' Clay Loam	1'-3.5' Sandy Loam
	9'-13' Gravelly Sand	9'-13' Gravelly Sand	5'-10' Gravelly Coarse Sand	10'-20' Loamy Sand	3.5'-8' Clay Loam
					8'-12' Medium Sand

**NOTE**  
 ALL PROPOSED DITCHES FOR THE PRIVATE ROAD AND WITHIN THE LATSON ROAD RIGHT-OF-WAY SHALL NOT EXCEED A 1:4 GRADE ON FORESLOPES AND BACKSLOPES

**BENCHMARK INFORMATION**  
 BM #200: NAIL IN S/S OF POWER POLE ALONG LOTS AND ROAD SOUTH OF #3370  
 ELEVATION = 986.28 NAVD88  
 BM#201: NAIL ON SOUTH SIDE OF 22" CHERRY LOCATED ON EAST END OF THE E-W TREE ROW IN MIDDLE OF SITE  
 ELEVATION = 972.40' NAVD88  
 BM#302: R.R. SPIKE IN WEST FACE OF UTILITY POLE 15' NORTH OF NORTH EDGE OF DRIVE FOR #3473 LATSON, 50' EAST OF ROAD  
 ELEVATION = 984.34 NAVD88

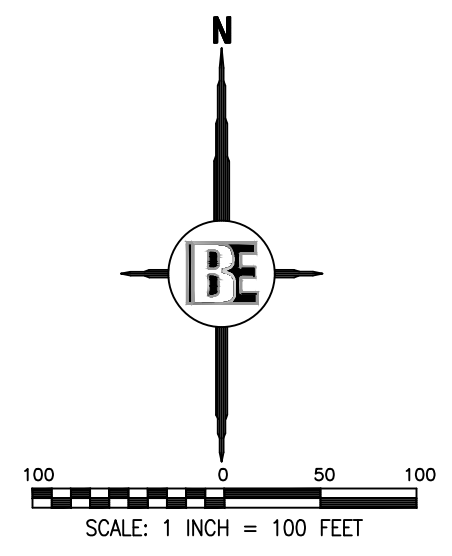
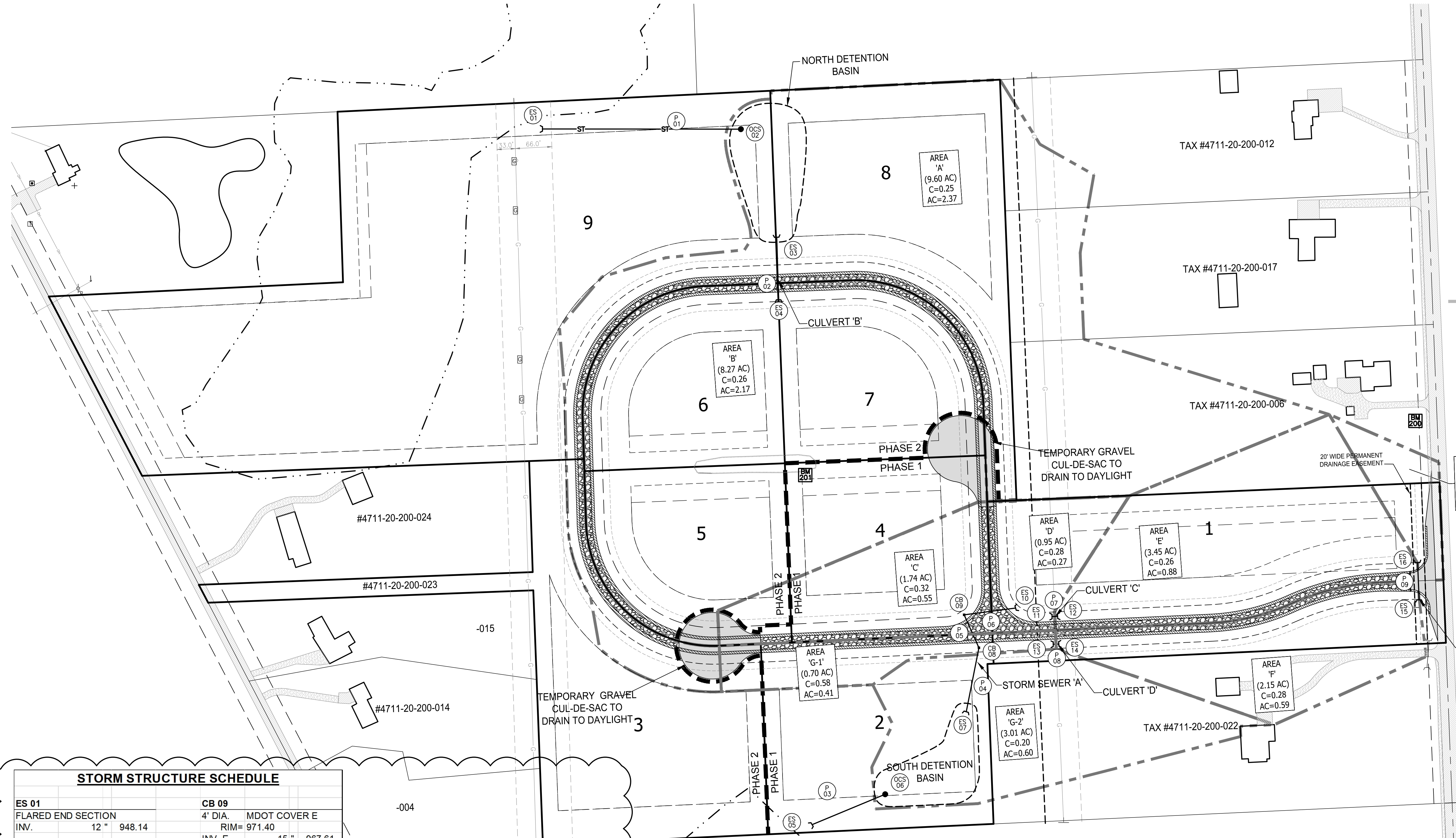
THE LOCATION AND RELIABILITY OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CONFLICTS ARE APPARENT OR IF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.  
**BEFORE YOU DIG CALL MISSISSIPPI 811**

**BEBOSS Engineering**  
 Engineers Surveyors Planners Landscape Architects  
 3121 E. GRAND RIVER AVE.  
 HOWELL, MI. 48843  
 800.246.6735 FAX 517.548.1670

**MISTY MEADOW**  
 PROJECT  
**GFG INVESTMENT PROPERTIES, LLC**  
 PREPARED FOR  
 15264 BAILEY TAYLOR, MI 48180 (734) 795-0078  
**GRADING PLAN**  
 TITLE

NO	BY	DATE	REVISION PER
1	KS	03/23/16	TOWNSHIP REVIEW
2	KS	5/19/16	TOWNSHIP REVIEW
3	KS	7/7/16	PHASING
4	KS	10/14/16	DRAINAGE EASEMENT
5	KS	10/27/16	ST SEWER PER L.C.D.C.
6	KS	02/23/16	SEWER PER CLIENT
7	KS	07/17/16	SLAB PER UTILITIES
8	KS	1/25/16	GRADING PER CLIENT

DESIGNED BY: KS  
 DRAWN BY: KS  
 CHECKED BY: KS  
 SCALE 1" = 100'  
 JOB NO. 15-179  
 DATE 03/23/16  
 SHEET NO. **4**



**LEGEND**

PROPOSED (PR)	EXISTING (EX)	
—	—	STORM DRAINAGE FLOW
—	—	OUTLET CONTROL STRUCTURE
—	—	INVERT ELEVATION
—	—	END-SECTION
—	—	STORM SEWER
—	—	GAS MAIN
—	—	MANHOLE
—	—	INLET / CATCHBASIN
—	—	FLARED END-SECTION
—	—	DRAINAGE AREA
—	—	ASPHALT
—	—	GRAVEL
—	—	SETBACK
—	—	WETLAND
—	—	DETENTION/RETENTION BASIN
—	—	PHASE LINE

THE LOCATION AND ELEVATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CONFLICTS ARE APPARENT OR IF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

**BEFORE YOU DIG**  
CALL MISS DUG  
1-800-4-A-DRIVER

**STORM STRUCTURE SCHEDULE**

<b>ES 01</b> FLARED END SECTION INV. 12 " 948.14	<b>CB 09</b> 4' DIA. MDOT COVER E RIM= 971.40
<b>OCS 02</b> RIM = 952.00 INV. W 12 " 949.75 2' SUMP	<b>ES 10</b> FLARED END SECTION INV. 15 " 970.90
<b>ES 03</b> FLARED END SECTION INV. 18 " 951.15	<b>ES 11</b> FLARED END SECTION INV. 15 " 973.72
<b>ES 04</b> FLARED END SECTION INV. 18 " 952.17	<b>ES 12</b> FLARED END SECTION INV. 15 " 973.82
<b>ES 05</b> FLARED END SECTION INV. 12 " 954.77	<b>ES 13</b> FLARED END SECTION INV. 15 " 973.72
<b>OCS 06</b> RIM = 958.00 INV. SW 12 " 955.25 2' SUMP	<b>ES 14</b> FLARED END SECTION INV. 15 " 973.82
<b>ES 07</b> FLARED END SECTION INV. 24 " 956.00	<b>ES 15</b> FLARED END SECTION INV. 12 " 981.33
<b>CB 08</b> 4' DIA. MDOT COVER E RIM= 971.50 INV. S 24 " 956.74 INV. N 15 " 961.34 2' SUMP	<b>ES 16</b> FLARED END SECTION INV. 12 " 981.54

**DRAINAGE AREA STRUCTURE SUMMARY**

STRUCTURE	DRAINAGE AREA(S)	AREA (AC)
STORM SEWER A	D, E, C, G-1	6.84
CULVERT B	B	8.27
CULVERT C	E	3.45
CULVERT D	F	2.15
CULVERT E	H	0.58

**STORM PIPE SCHEDULE**

PIPE	LENGTH	SIZE	TYPE	SLOPE
1	358	12	ADS N-12 WT	0.45%
2	113	18	C-76 CL V RCP	0.90%
3	151	12	ADS N-12 WT	0.32%
4	98	24	ADS N-12 WT	0.75%
5	65	15	ADS N-12 WT	3.50%
6	94	15	C-76 CL V RCP	3.50%
7	8	15	C-76 CL V RCP	1.19%
8	8	15	C-76 CL V RCP	1.19%
9	67	12	C-76 CL V RCP	0.32%

**DRAINAGE AREA SUMMARY**

**NORTH BASIN DRAINAGE AREAS**

SECTION	AREA (AC)	C	AxC
A	9.60	0.25	2.37
B	8.27	0.26	2.17
TOTAL (AC)=	17.87		

**SOUTH BASIN DRAINAGE AREAS**

SECTION	AREA (AC)	C	AxC
C	1.74	0.32	0.55
D	0.95	0.28	0.27
E	3.45	0.26	0.88
F	2.15	0.28	0.59
G-1	0.70	0.58	0.41
G-2	2.95	0.20	0.59
TOTAL (AC)=	11.93		

**DETENTION/RETENTION BASIN NOTES**

1. THE NORTH BASIN IS TO OUTLET INTO AN EXISTING WETLAND TO THE NORTHWEST.
2. THE SOUTH BASIN IS TO OUTLET INTO AN EXISTING WETLAND TO THE SOUTH.

**BENCHMARK INFORMATION**

BM #200: NAIL IN S/S OF POWER POLE ALONG LOTS AND ROAD SOUTH OF #3370  
ELEVATION = 986.28 NAVD88

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ELEVATION = 972.40' NAVD88

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ELEVATION = 984.34 NAVD88

**MISTY MEADOW**  
**GFG INVESTMENT PROPERTIES, LLC**  
15264 BAILEY  
TAYLOR, MI 48180  
(734) 795-0078

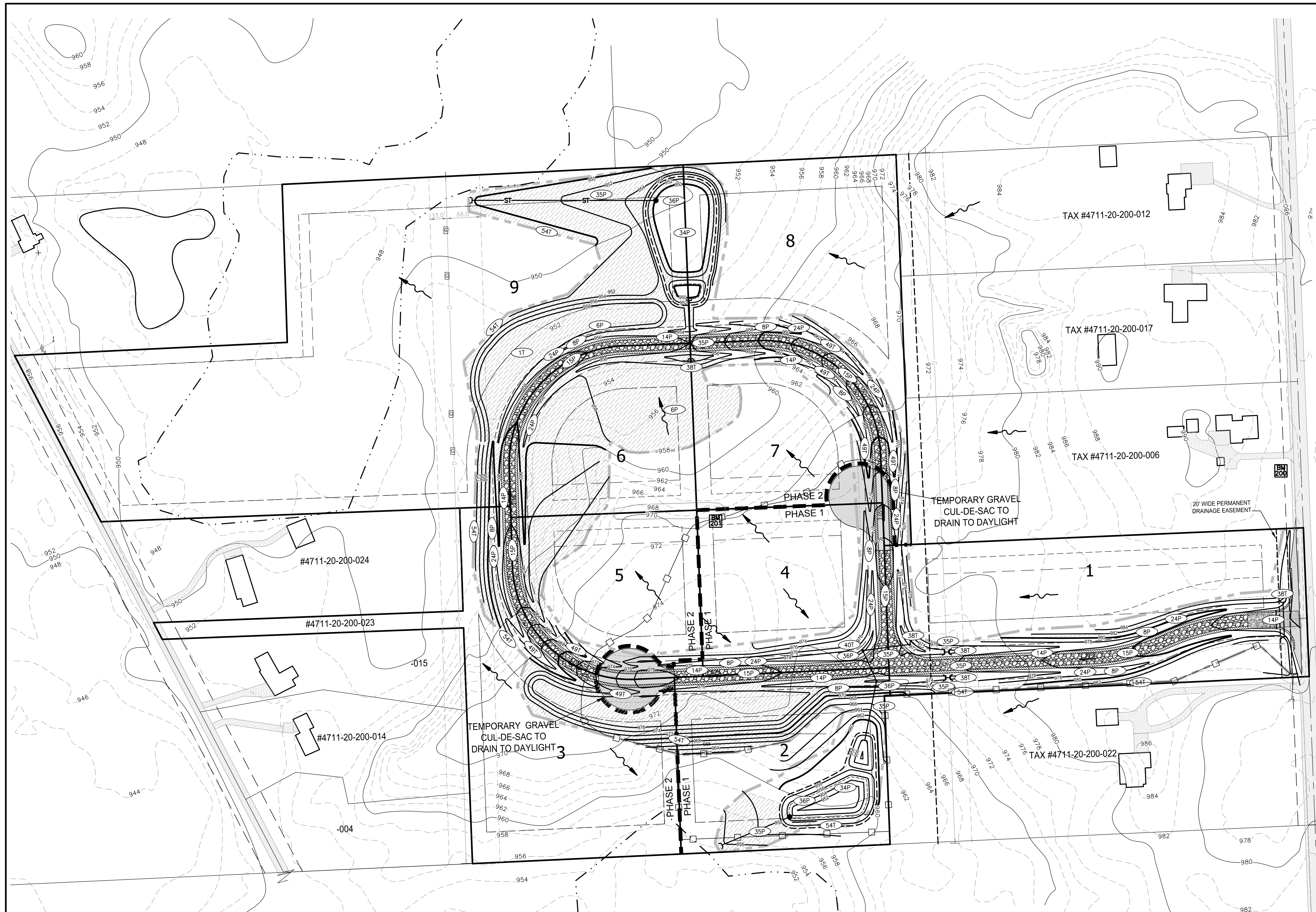
**BEBOSS**  
Engineering  
Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
800.246.6735 FAX 517.548.1670

PROJECT: **DRAINAGE AREAS**

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY:

SCALE: 1" = 100'  
JOB NO. 15-179  
DATE: 03/23/16  
SHEET NO. 5





**LEGEND**

PROPOSED (PR)	EXISTING (EX)	DESCRIPTION
900	900	CONTOUR
ST	ST	STORM DRAINAGE FLOW
ST	ST	STORM SEWER
G	G	GAS MAIN
○	○	MANHOLE
○	○	INLET / CATCHBASIN
○	○	FLARED END-SECTION
○	○	SOIL EROSION CONTROL MEASURE (P=PERMANENT, T=TEMPORARY)
□	□	SILT FENCE
□	□	LIMITS OF GRADING/CLEARING
□	□	FILL AREA
□	□	ASPHALT
□	□	GRAVEL
□	□	SETBACK
□	□	WETLAND
□	□	DETENTION/RETENTION BASIN
□	□	PHASE LINE

**SOIL EROSION CONTROL MEASURES**

NO.	MEASURE	DESCRIPTION
1	STRIPPING & STOCKPILING TOPSOIL	TOPSOIL MAY BE STOCKPILED ABOVE BORROW AREAS TO ACT AS A DIVERSION STOCKPILE SHOULD BE TEMPORARILY SEEDDED
6	SEEDING WITH MULCH AND/OR MATING	FACILITATES ESTABLISHMENT OF VEGETATIVE COVER EFFECTIVE FOR DRIVELAYS WITH LOW VELOCITY EASY TO PLACE IN SMALL QUANTITIES BY UNLICENSED PERSONNEL SHOULD INCLUDE PREPARED TOPSOIL (BT)
8	SOODING	PROVIDES IMMEDIATE PROTECTION CAN BE USED ON STEEP SLOPES WHERE SEED MAY BE DIFFICULT TO ESTABLISH EASY TO PLACE, MAY BE REPAIRED IF DAMAGED SHOULD INCLUDE PREPARED TOPSOIL (BT)
14	AGGREGATE COVER	STABILIZES SOIL SURFACE, THIS MINIMIZES EROSION PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS
15	FRANG	PROTECTS AREAS WHICH CANNOT OTHERWISE BE PROTECTED, BUT INCREASES IRRREGULAR SURFACE WILL HELP SLOW VELOCITY
24	GRAVELLED WATERWAY	MUCH MORE STABLE FORM OF BRANCHED THAN BARE CHANNEL GRASS TRIMS TO SLOW RUNOFF AND FILTER OUT SEDIMENT USED WHERE BARE CHANNEL WOULD BE CRODDED
34	SEDIMENT BASIN	TRAPS SEDIMENT RELEASES RUNOFF AT NON-EROSIVE RATES CONTROLS RUNOFF AT SYSTEM OUTLETS CAN BE SOUL JAGGLES
35	STORM SEWER	SYSTEM REMOVES COLLECTED RUNOFF FROM SITE, PARTICULARLY FROM PAVED AREAS CAN ACCEPT LARGE CONCENTRATIONS OF RUNOFF CONDUCTS RUNOFF TO WINDUPP, SEWER SYSTEM OR STABILIZED OUTLET LOCATION USE CATCH BASINS TO COLLECT SEDIMENT
36	CATCH BASIN, DRAIN INLET	COLLECTS HIGH VELOCITY CONCENTRATED RUNOFF MAY USE FILTER CLOTH OVER INLET
38	SNOW BALE FILTER	INEXPENSIVE AND EASY TO CONSTRUCT CAN BE LOCATED AS NECESSARY TO COLLECT SEDIMENT MAY BE USED IN CONJUNCTION WITH SNOW FENCE FOR ADDED STABILITY
40	INLET SEDIMENT FILTER	EASY TO SHAPE COLLECTS SEDIMENT MAY BE CLEANED AND EXPANDED AS NEEDED
49	CHECK DAM	REDUCES FLOW VELOCITY CATCHES SEDIMENT CAN BE CONSTRUCTED OF LOGS, STRAW, HAY, ROCK, LOGS, MASONRY OR SAND BAGS
54	SILT FENCE	USES DEGRADABLE FABRIC AND POST OR POLES. EASY TO CONSTRUCT AND LOCATE AS NECESSARY. (SEE DETAIL THIS SHEET)

**SOIL EROSION CONTROL NOTES**

- SOD TO BE PEGGED IN PLACE FOR AREAS WHERE THE CENTERLINE OF DITCH/SWALE EXCEEDS 3.0% SLOPE.
- TEMPORARY CHECK DAMS TO BE INSTALLED FOR AREAS WHERE THE CENTERLINE OF DITCH EXCEEDS 3.0% SLOPE. MEASURE TO BE REMOVED ONCE SUFFICIENT STABILIZATION HAS BEEN ESTABLISHED.

**BENCHMARK INFORMATION**

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BM #302: R.R. SPIKE IN WEST FACE OF UTILITY POLE 15' NORTH OF NORTH EDGE OF DRIVE FOR #3473 LATSON, 50' EAST OF ROAD  
ELEVATION = 984.34 NAVD88

INSTALLED CURRENTLY IS THE SILT FENCE FOR PHASE 1 CONSTRUCTION AS SHOWN ON PLANS. OTHER TEMPORARY MEASURES TO BE INSTALLED WHEN STORM SEWER IS PLACED (SILT SACKS) AND ROAD DITCHES ESTABLISHED (CHECK DAMS AND STRAW BALE FILTER).

BEFORE YOU DIG  
CALL MISS DIG  
1-800-4-A-DIG  
MISSISSAUGA, ONTARIO

**BEBOSS**  
Engineering  
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3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
800.246.6735 FAX 517.548.1670

**MISTY MEADOW**  
PROJECT

PREPARED FOR: **GFG INVESTMENT PROPERTIES, LLC**  
15264 BAILEY TAYLOR, MI 48180 (734) 795-0078

**SOIL EROSION CONTROL PLAN**  
TITLE

NO.	BY	DATE
1	KS	1/25/19
2	KS	10/27/16
3	KS	10/14/16
4	KS	9/5/16
5	KS	7/7/16
6	KS	5/19/16
7	KS	4/20/16

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY: KS

SCALE: 1" = 100'  
JOB NO. 15-179  
DATE 03/23/16  
SHEET NO. 6

**LIVINGSTON COUNTY SOIL EROSION PERMIT TEMPLATE**  
**TEMPORARY CONTROLS AND SEQUENCE**

- NOTIFY LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE 24 HOURS PRIOR TO START OF GRADE WORK.
- IN ACCORDANCE WITH PUBLIC ACT NO. 53, OF 1974 THE PERMIT HOLDER SHALL CALL MISS DIG FOR SIGHTING AND LOCATING OF UTILITIES, AT LEAST 72 HOURS IN ADVANCE OF THE START OF ANY WORK.

**PERMITTING STANDARDS**

- (IMPORTANT NOTICE) RETENTION/DETENTION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. INGRESS/EGRESS MUST HAVE LARGE CRUSHED ROCK TO REDUCE THE TRACKING OF SOIL ONTO THE PUBLIC TRAFFIC AREAS. SEE DETAIL ITEMS BELOW.
- 36" M.D.O.T SPECIFICATION TYPE SILT FABRIC FENCE AS SHOWN ON PLANS SHALL BE PLACED AND MAINTAINED ALONG PERIMETER ON ALL LOW LYING AREAS OF THE CONSTRUCTION SITE TO FILTER RUNOFF BEFORE LEAVING PROJECT SITE.
- ALL TEMPORARY EROSION CONTROL DEVICES AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO THE START OF MASSIVE EARTH DISTRIBUTION.
- PLAN DOES DENOTE A DETAILED EROSION CONTROL DEVICE TO RESTRICT TRACKING OF MATERIAL ONTO THE HIGHWAY. STONE DIAPERS SHALL BE INSTALLED AT ALL INGRESS/EGRESS AREAS OF THE SITE PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. DIAPERS SHALL BE OF CRUSHED STONE AND SHALL HAVE A MINIMUM LENGTH OF 100' LINEAL FEET.

**RETENTION PONDS**

- RETENTION/DETENTION/SEDIMENTATION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION.
- DETENTION POND OUTLETS SHALL BE OF THE STANDPIPE AND STONE FILTER SYSTEM, WITH TRASH SCREEN. OUTLET FLOW SHALL NOT EXCEED 0.20 CUBIC FEET OF WATER PER SECOND/PER ACRE. POND DIKES SHALL HAVE A MINIMUM OF ONE (1) FOOT OF FREEBOARD. AN EMERGENCY SPILLWAY SHALL BE CONSTRUCTED WITHIN THE FREEBOARD LEVEL.
- THE EMERGENCY SPILLWAY FROM THE DETENTION POND SHALL BE SODDED AND PEGGED, OR RIP RAPPED, 15 FEET PAST THE TOE OF THE SLOPE OF THE BERM.
- DIKES AND BERMS SHALL BE FREE OF ALL ORGANIC MATTER.
- RETENTION/DETENTION PONDS SHALL BE FENCED WITH A 4' CHAIN LINK FENCE, INCLUDING A 12' ACCESS GATE FOR MAINTENANCE UNLESS MINIMUM 5 FT. HORIZONTAL TO 1 FT. VERTICAL SIDE SLOPES ARE PROVIDED. THE FENCE SHALL BE INSTALLED AT THE OUTER PORTION OF THE BERM, TO ALLOW FOR MAINTENANCE WORK TO BE DONE INSIDE THE FENCE.
- ALL UNIMPROVED DISTURBED AREAS SHALL BE STRIPPED OF TOPSOIL WHICH WILL BE STORED ONSITE DURING THE EXCAVATING STAGE. TOPSOIL PILES SHALL BE SEEDED AND MULCHED, OR MATTED WITH STRAW IN THE NON-GROWING SEASON, IMMEDIATELY AFTER THE STRIPPING PROCESS IS COMPLETED, TO PREVENT WIND AND WATER EROSION.
- SOIL EROSION CONTROLS SHALL BE MONITORED DAILY BY THE ON-SITE ENGINEER, OR CONTRACTOR, WHICHEVER CASE APPLIES.

**SLOPES AND DITCHES**

- ON SITE DITCHES SHALL BE OF THE FLAT BOTTOM TYPE MINIMUM WIDTH OF 2' WITH A MINIMUM OF 4 HORIZONTAL TO 1 VERTICAL SIDE SLOPES, 4:1.
- DITCHES WITH STEEP SLOPES WILL NEED FLOW CHECKS TO PREVENT SCOURING OF THE DITCH BOTTOM. THESE SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER OR INSPECTOR.
- SLOPES IN EXCESS OF 4 HORIZONTAL TO 1 VERTICAL SHALL NOT BE USED EXCEPT WITH A MECHANICAL DEVICE SUCH AS A RETAINING WALL, TERRACING, OR OTHER PRIOR APPROVED DEVICE.
- ALL STORM WATER STRUCTURES, CATCH BASINS AND/OR MANHOLES, IF BLOCK, SHALL BE PLASTERED ON BOTH THE INSIDE AND OUTSIDE OF THE STRUCTURES. GROUTING AND POINTING WILL BE NECESSARY AT THE CASTING AND STRUCTURE JOINT TO PREVENT LEAKAGE AND THE RESULTING SOIL MOVEMENT, AROUND THE STRUCTURE.
- STORM WATER INLETS SHALL HAVE AS A TEMPORARY CONTROL A STRAW BALE BARRIER AND STONE FILTER INSTALLED AROUND THE INLET DURING CONSTRUCTION. AS AN ALTERNATIVE TO THE STRAW BALE BARRIER, A BURLAP AND PEA STONE FILTER MAY BE USED. THREE LAYERS OF BURLAP FIBER AND A FILTER OF PEA STONE MINIMUM 1 FT. IN DEPTH CAN BE USED. DUE TO THE POROSITY OF THE BURLAP FILTER THE MINIMUM OF 1 FT. OF STONE IS VERY IMPORTANT. THE CONTROL SHALL BE INSTALLED AS SOON AS THE STRUCTURE IS BUILT AND INSPECTED DAILY.
- BURLAP AND PEA STONE FILTERS WILL NEED TO BE CHANGED AFTER EACH RAINFALL.
- COUNTY CODE REQUIRES A MINIMUM PIPE SIZE OF 12" IN DIAMETER. IF SMALLER PIPE IS NEEDED FOR OUTLET PURPOSES THE 12" CAN BE BAFFLED TO THE CORRECT SIZE. ALL PIPE SHALL MEET THE 12" DIAMETER CODE SIZE.
- ALL STORM DRAIN OUTLETS 15" IN DIAMETER OR LARGER SHALL HAVE ANIMAL GUARDS INSTALLED TO PREVENT ENTRANCE TO THE SYSTEM.

- ALL STORM DRAIN OUTLETS THAT DO NOT EMPTY INTO THE RETENTION/DETENTION POND SHALL HAVE A TEMPORARY 5'X10'X3' SUMP INSTALLED AT THE TERMINATION OF THE STORM SEWER. UPON COMPLETION OF THE STABILIZATION WORK THE SUMP AREA SHALL BE FILLED AND RIP RAPPED WITH COBBLE STONE. SILT TRAPS SHALL BE INSPECTED AFTER EACH STORM.
- STORM WATER OUTLETS DO DENOTE RIP RAP. ALL OUTLETS SHALL BE RIP RAPPED OVER KEVED FILTER FABRIC WITH A MINIMUM OF 15 SQ. YARDS OF 6" OR LARGER COBBLE STONE.
- RIP RAP AS NOTED ON THE PLAN SHALL BE OF A FUNNEL SHAPE CONSTRUCTION, WIDTH SHALL INCREASE AS DISTANCE FROM THE OUTLET POINT INCREASES AT A 3:1 RATIO.
- RIP RAP SHALL BE OF COBBLE STONE, 6" IN DIAMETER OR LARGER. GROUTING MAY BE NECESSARY, AND SHALL BE A MINIMUM OF 6" IN DEPTH WITH THE COBBLE SET IN THE CEMENT SLURRY.
- STORM WATER OUTLET IS IN NEED OF A SPLASH BLOCK WHICH IS NOT NOTED ON THE PLAN. INSTALL SPLASH BLOCK IF SLOPE OF THE PIPE IS 4% OR GREATER.
- IT WILL BE NECESSARY FOR THE DEVELOPER TO HAVE THE STORM DRAINAGE LINES CLEANED PRIOR TO FINAL INSPECTION BY THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE. IF REQUIRED, THIS WORK SHALL BE DONE BY A PROFESSIONAL SEWER CLEANING FIRM AND CERTIFIED IN WRITING BY THE PROJECT ENGINEER. ALL SUMPS AND TEMPORARY SILT TRAPS SHALL ALSO BE CLEANED AT THIS TIME.

**STABILIZATION**

- ALL UNIMPROVED DISTURBED AREAS SHALL BE RE-TOP SOILED, WITH A MINIMUM OF 3" OF MATERIAL, SEEDED, MULCHED AND TACKED WITHIN 15 DAYS OF THE COMPLETION OF THE MASSIVE EARTH DISRUPTION. IN THE NON-GROWING SEASON STRAW MATTING WILL SUFFICE. HYDROSEEDING WILL BE AN ACCEPTABLE ALTERNATE FOR MULCHING. EXTREME CARE SHOULD BE EXERCISED IN SPRING AND FALL PERIODS AS A FROST WILL BREAK THE BIND OF THE HYDROSEEDING, WHICH WILL AFFECT THE EFFECTIVENESS OF THIS PROCEDURE.
- IN THE NON-GROWING SEASON, TEMPORARY STABILIZATION OF MASSIVELY EXPOSED AREAS FOR WINTER STABILIZATION SHALL BE DONE WITH STRAW MATTING.
- PERIODIC INSPECTIONS WILL BE MADE THROUGHOUT THE COURSE OF THE PROJECT. IT WILL BE THE RESPONSIBILITY OF THE MANAGERS OF THE PROJECT TO CONTACT THIS OFFICE FOR THE FINAL INSPECTION AT THE END OF THE PROJECT.
- THIS COMMERCIAL PERMIT IS VALID FOR THE MASS EARTH MOVEMENT, THE INSTALLATION OF ROADS, DRAINS, AND UTILITIES AND IS NOT FOR ANY SINGLE FAMILY RESIDENCE. ALL RESIDENTIAL BUILDERS WILL NEED TO SECURE WAIVERS AND OR PERMITS AS NECESSARY FOR EACH LOT IN THIS DEVELOPMENT AT THE TIME APPLICATION FOR SINGLE FAMILY RESIDENCE IS MADE.
- THE ISSUING BUILDING DEPARTMENT SHALL NOT ISSUE THE CERTIFICATE OF OCCUPANCY UNTIL THE FINAL INSPECTION LETTER FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE HAS BEEN OBTAINED.
- PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER THE SEEDING, FERTILIZER AND MULCH MINIMUM QUANTITIES SHALL BE AS FOLLOWS:  
 TOP-SOIL 3" IN DEPTH  
 GRASS SEED 210 LBS. PER ACRE  
 FERTILIZER 150 LBS. PER ACRE  
 STRAW MULCH 3" IN DEPTH 1.5 TO 2 TONS PER ACRE (ALL MULCHING MUST HAVE A TIE DOWN, SUCH AS TACKIFIER, NET BINDING, ETC.)
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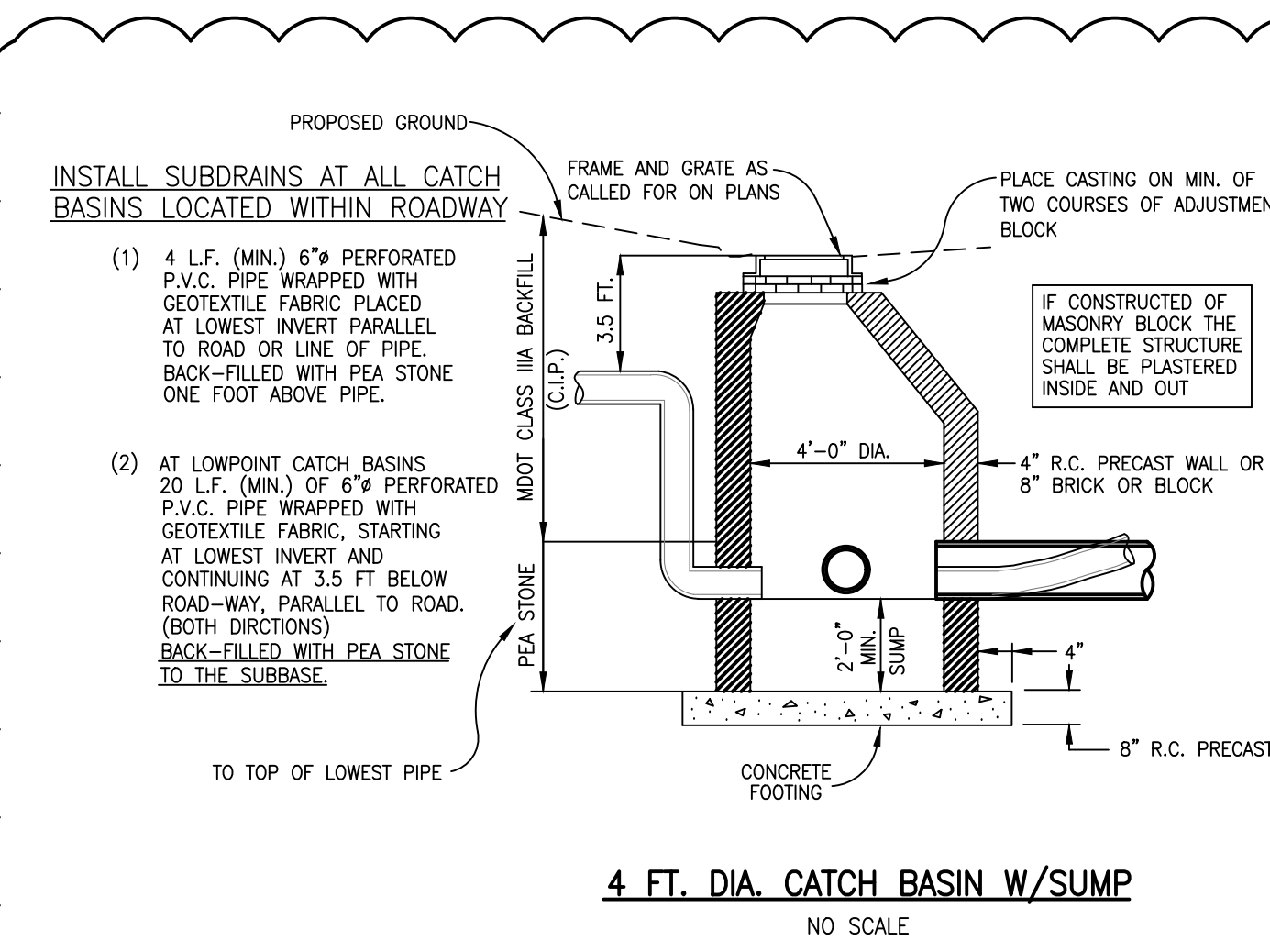
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**MAINTENANCE SCHEDULE FOR SOIL EROSION CONTROLS**

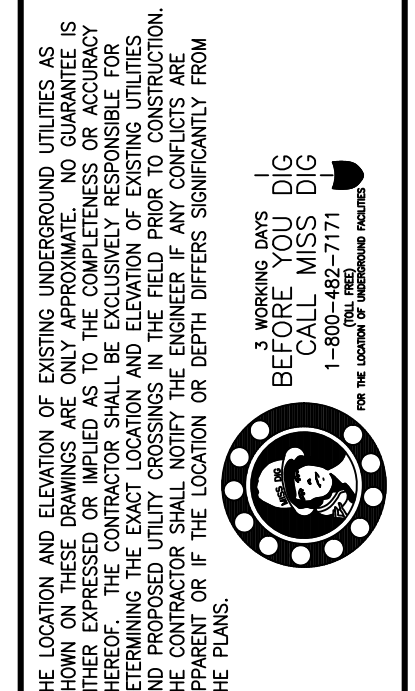
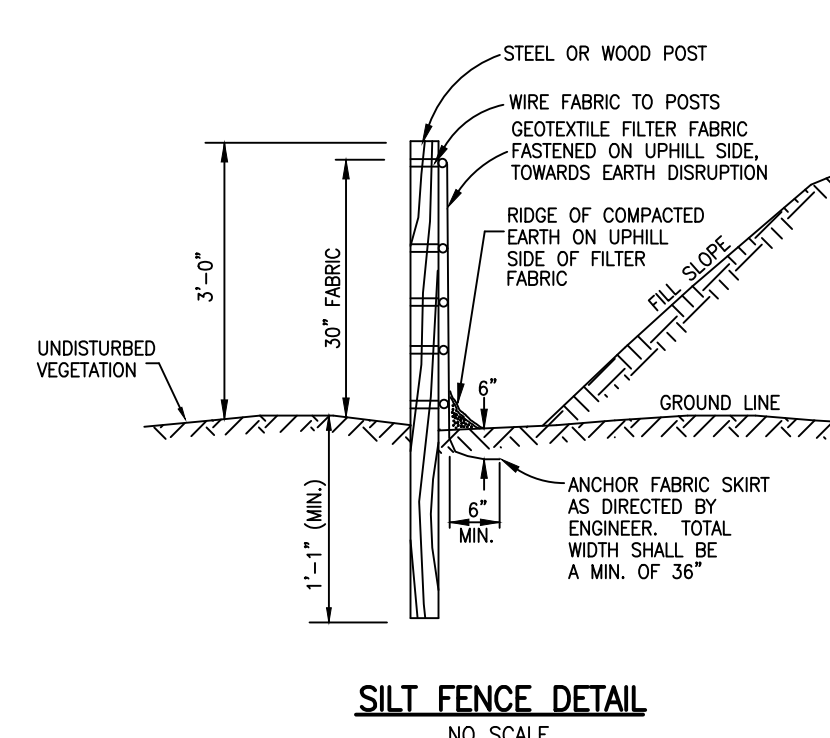
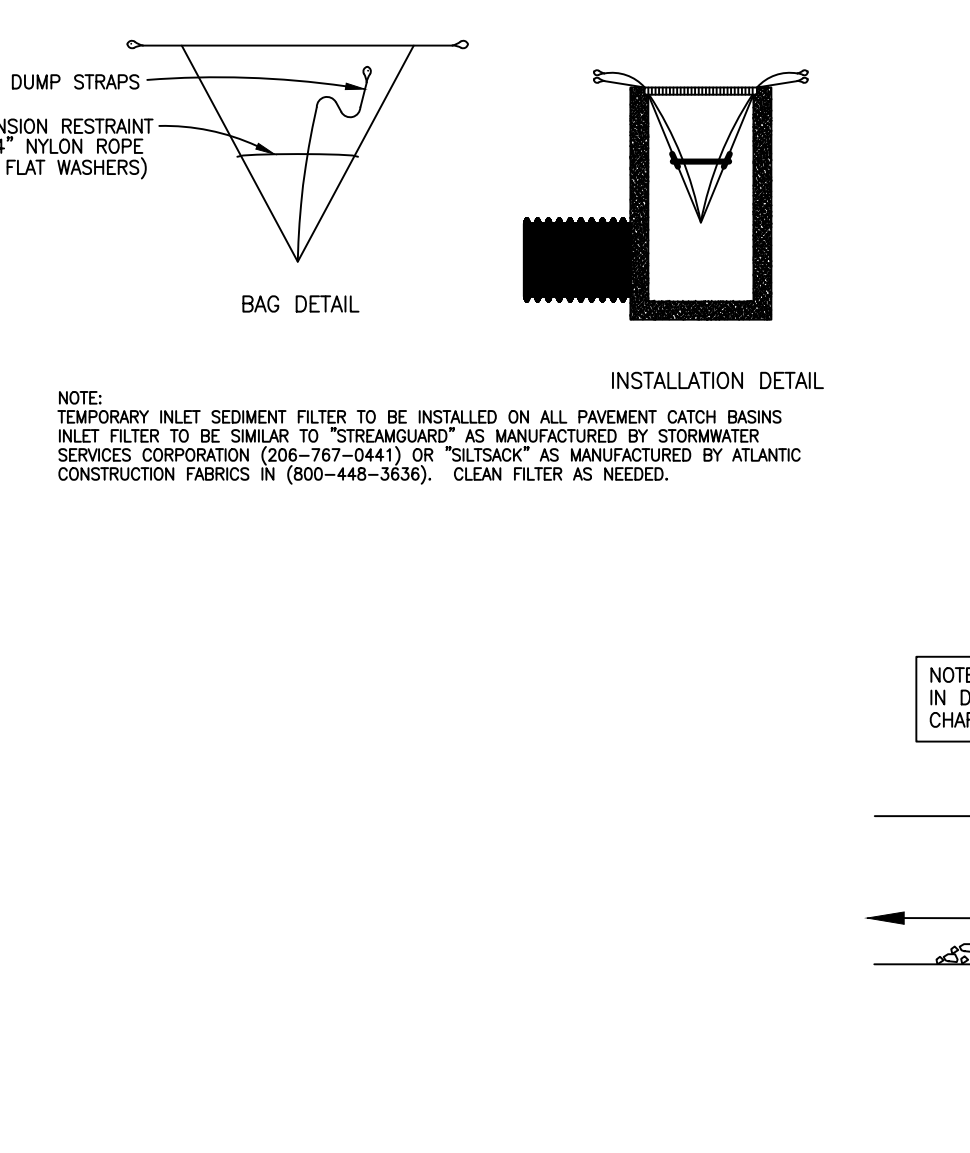
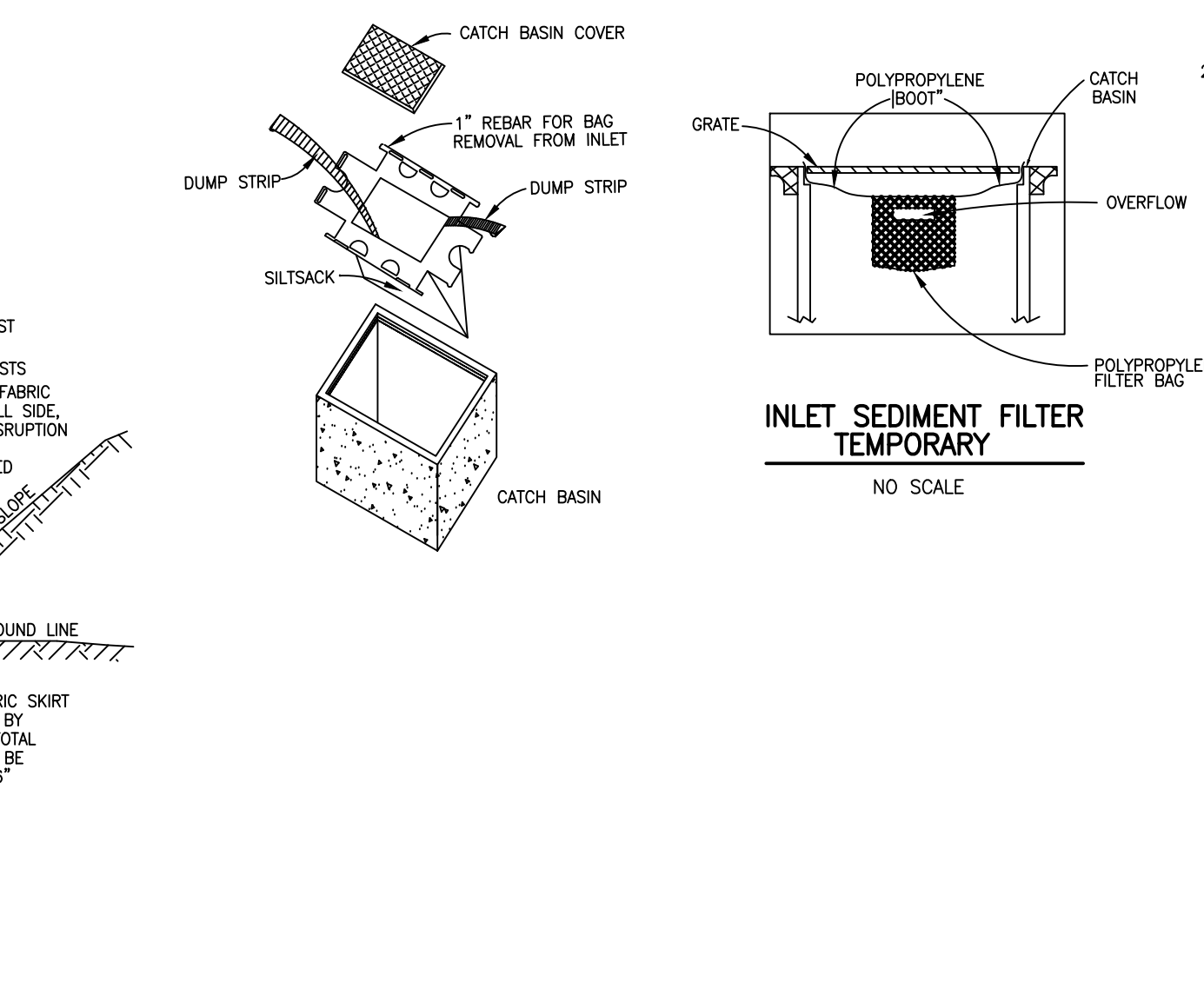
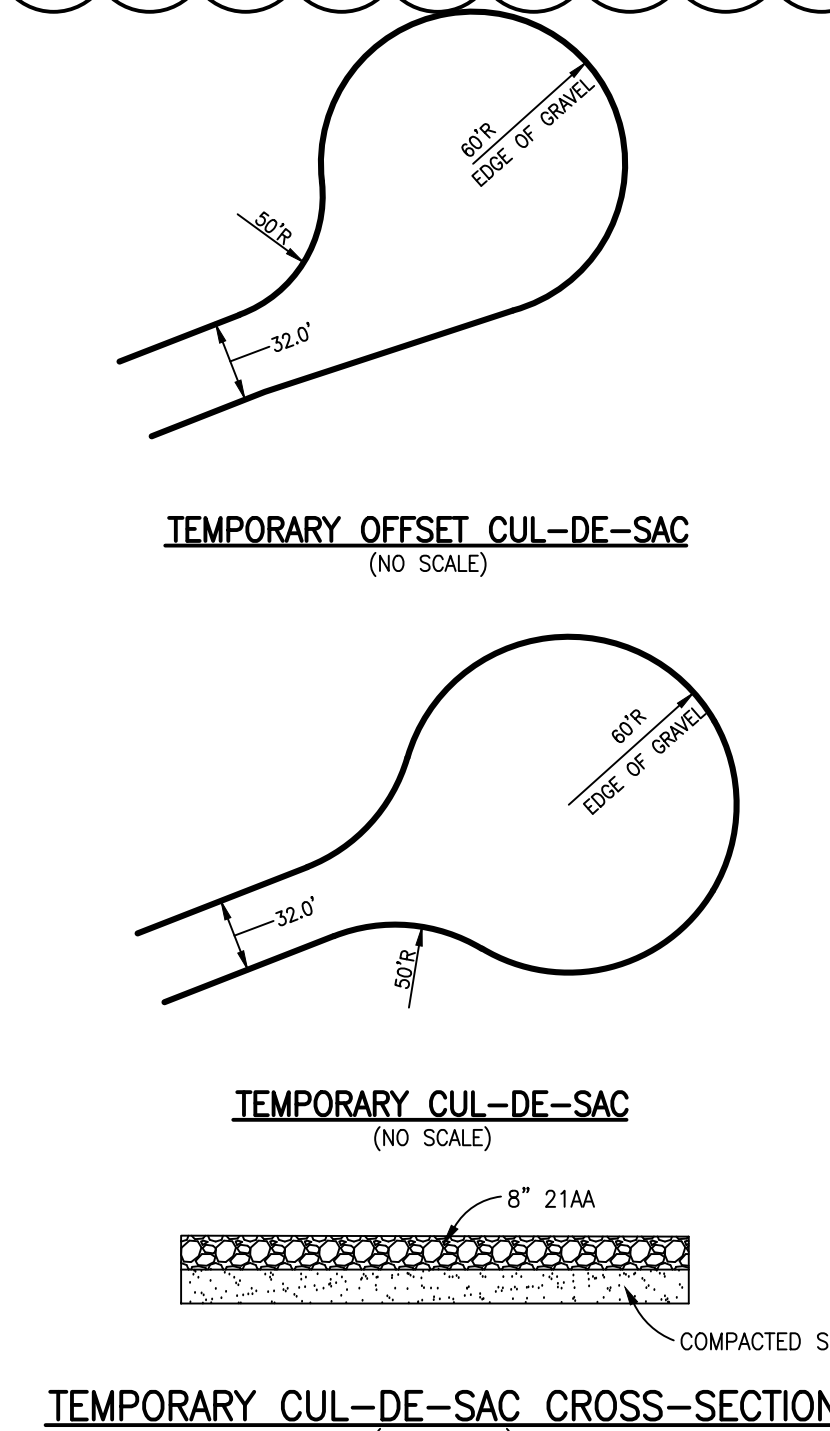
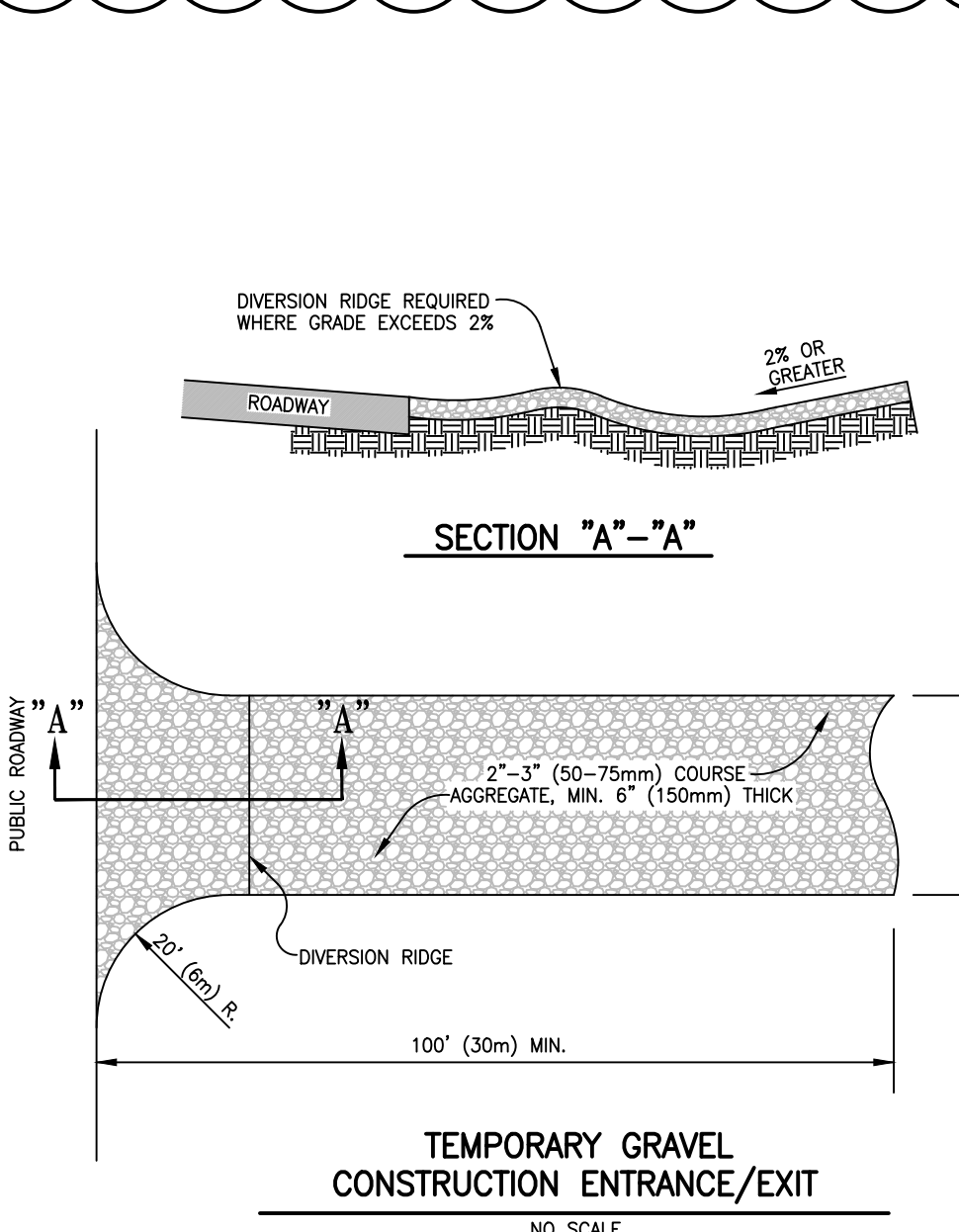
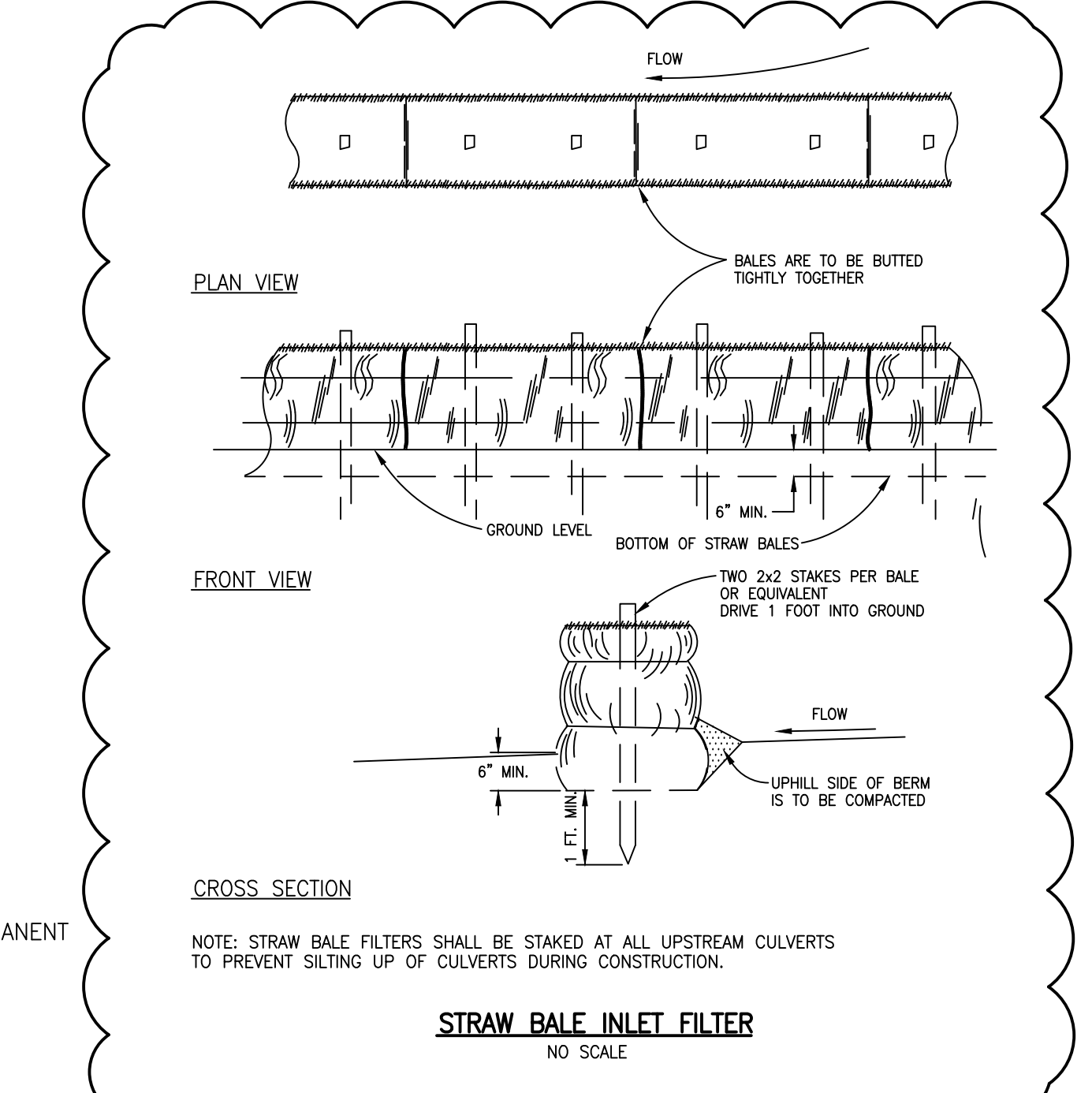
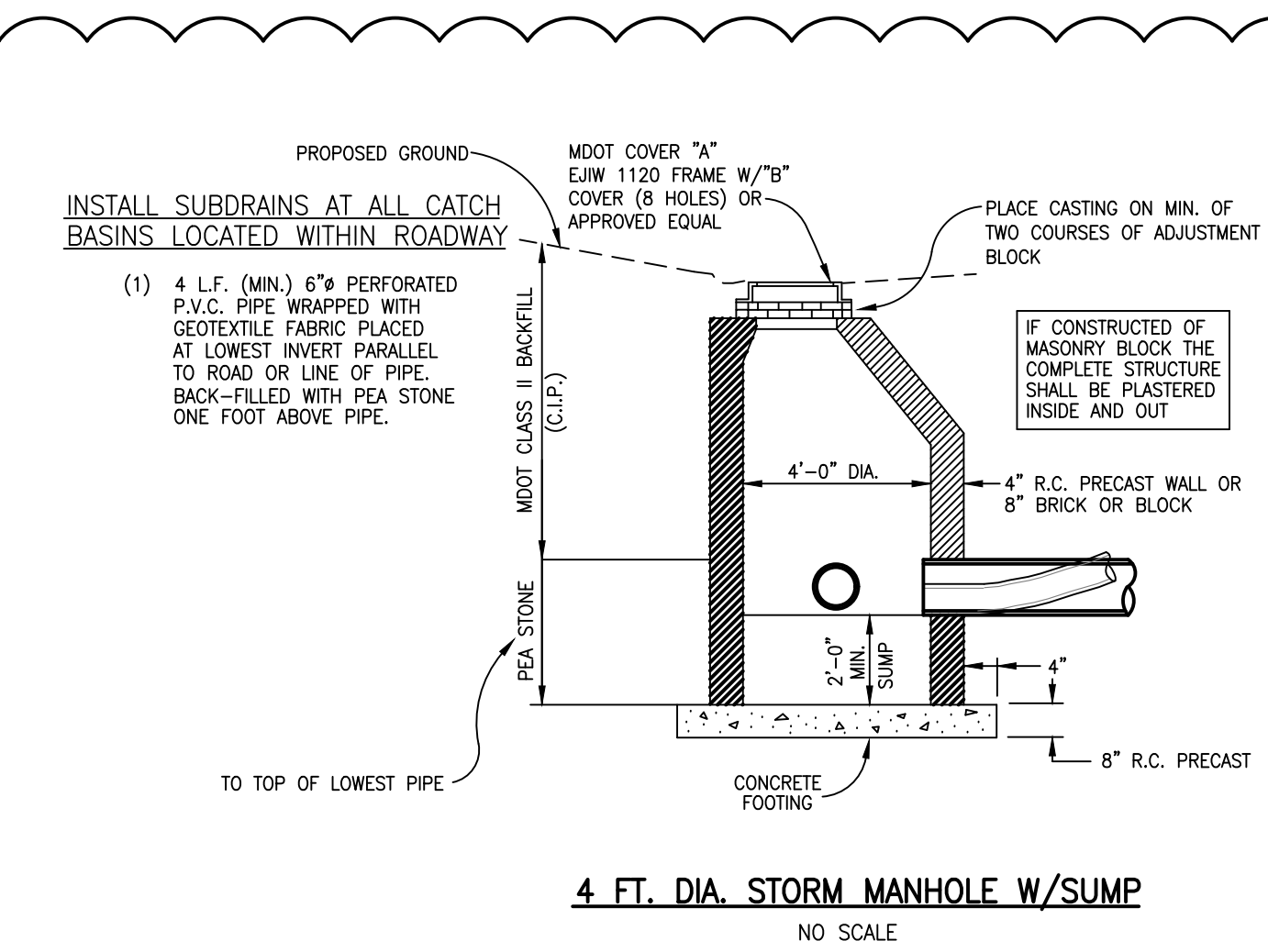
- SILT FENCE SHALL BE INSPECTED WEEKLY AND AFTER EACH MAJOR STORM EVENT. MAINTENANCE SHALL INCLUDE REMOVAL OF ACCUMULATED SILT AND REPLACEMENT OF TORN SECTIONS. SILT FENCE SHALL BE REMOVED WHEN ALL CONTRIBUTING AREAS HAVE BEEN STABILIZED.
- TRACKING PAD SHALL BE INSPECTED MONTHLY FOR ACCUMULATED DIRT. TRACKING PAD SHALL BE REPLACED WHEN THE STONES ARE CHOKED WITH DIRT. TRACKING PAD SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FIRST COURSE OF ASPHALT BEING LAID.
- DETENTION/RETENTION POND SHALL BE INSPECTED QUARTERLY ON A PERMANENT BASIS. MAINTENANCE SHALL INCLUDE SEDIMENT REMOVAL, EMBANKMENT STABILIZATION AND MAINTAINING THE OUTLET STRUCTURE IN GOOD CONDITION. NO TREES SHALL BE ALLOWED TO GROW ON THE EMBANKMENT.
- COMMON AREAS SHALL BE STABILIZED NO LATER THAN 15 DAYS AFTER GRADE WORK, PURSUANT TO RULE 1709 (5).
- CATCH BASINS SHALL BE INSPECTED ANNUALLY FOR ACCUMULATION OF SEDIMENT. ALL SEDIMENT MUST BE REMOVED AND DISPOSED OF PROPERLY WHEN THE SUMP IS FULL.

CONTROLS & MEASURES NARRATIVE	
ACTIVITY	DESCRIPTION
MAINTAIN LANDSCAPING, REPLACE MULCH	COLLECT GRASS, TREE, AND SHRUB CLIPPINGS. DISPOSE IN APPROVED CONTAINER. REPLACE DEAD SOD, TREES AND SHRUBS.
CLEAN INLETS	REMOVE LITTER, SEDIMENT, AND DEBRIS. DISPOSE OF IN APPROVED LANDFILL.
COLLECT LITTER	DISPOSE OF WITH INLET DEBRIS.
SWEEP PARKING LOT	REMOVE MUD, DIRT, GREASE AND OIL WITH PERIODIC SWEEPING
DUST CONTROL	SPRINKLE WATER AS NEEDED

CONTROLS & MEASURES POST CONSTRUCTION SEQUENCE				
ACTIVITY	DAILY	WEEKLY	MONTHLY	AS REQUIRED
MAINTAIN LANDSCAPING, REPLACE MULCH		X	X	X
CLEAN INLETS		X	X	X
COLLECT LITTER		X		X
SWEEP PAVED AREAS		X	X	X
SCRAPE PAVED AREAS	X			X



STRUCTURE FRAMES & COVERS					
COVER	TYPE	USE	MANUFACTURER OR EQUAL	TYPE OF COVER OR GRATE	
A	MH	ALL	1120	R-1415	SANITARY-SELF SEALING STORM-VENTED
E	CB & INLET	LAWN AREA OR DITCH	1020-01		BEEHIVE GRATE 4" HIGH



**BEBOSS Engineering**  
 Engineers Surveyors Planners Landscape Architects  
 3121 E. GRAND RIVER AVE.  
 HOWELL, MI. 48843  
 800.246.6735 FAX 517.548.1670

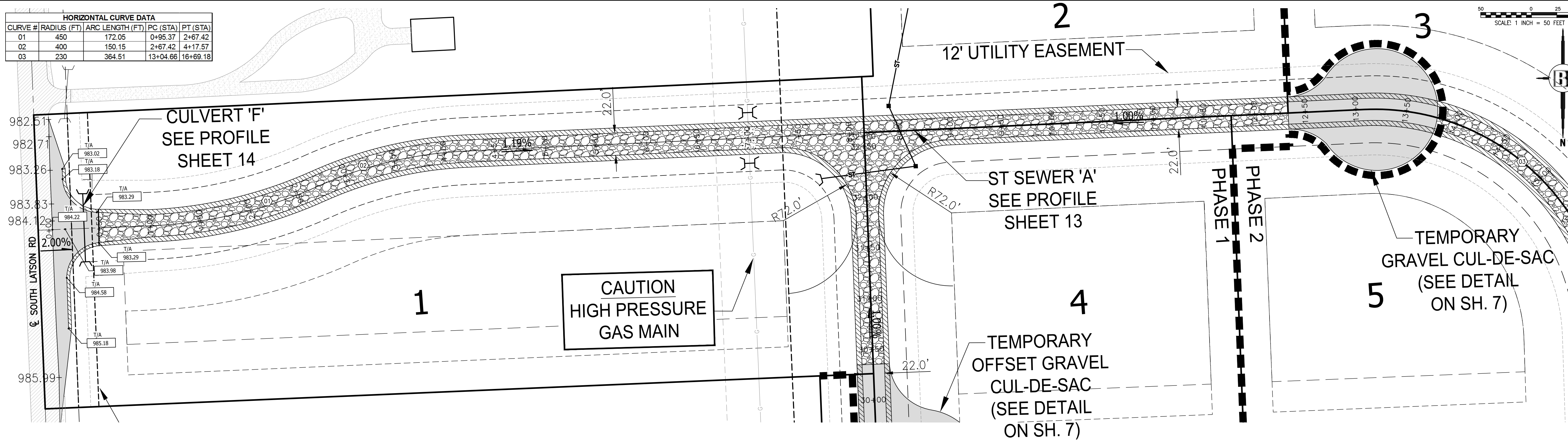
**MISTY MEADOW**  
**GFG INVESTMENT PROPERTIES, LLC**  
 15264 BAILEY TAYLOR, MI 48180 (734) 795-0078  
**CONSTRUCTION DETAILS**

NO.	DATE	REVISION PER	BY
1	4/20/16	TOWNSHIP REVIEW	KS
2	5/19/16	TOWNSHIP REVIEW	KS
3	7/1/16	L.C.R.C. REVIEW	KS
4	8/2/16	PHASING	KS
6	10/27/16	ST SEWER PER L.C.D.C.	KS

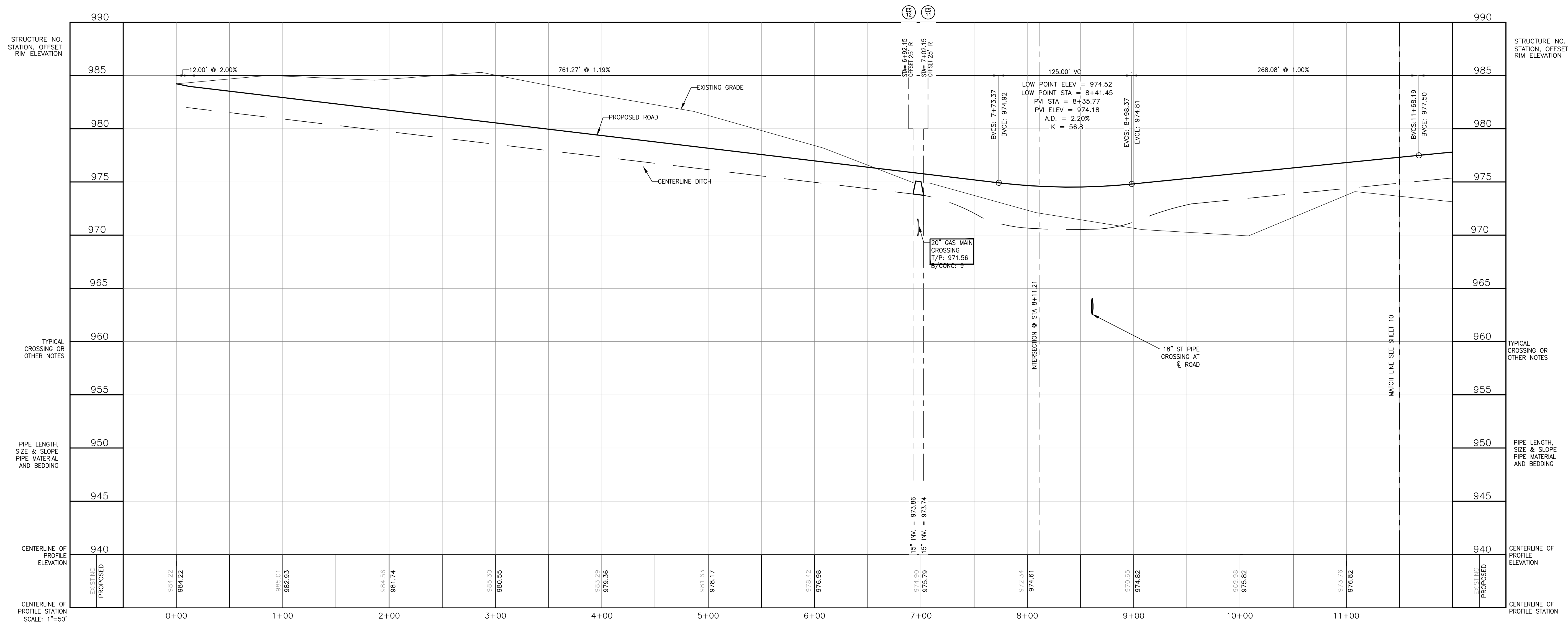
DESIGNED BY: KS  
 DRAWN BY: KS  
 CHECKED BY:  
 SCALE  
 JOB NO. 15-179  
 DATE 03/23/16  
 SHEET NO. 7



HORIZONTAL CURVE DATA				
CURVE #	RADIUS (FT)	ARC LENGTH (FT)	PC (STA)	PT (STA)
01	450	172.05	0+95.37	2+67.42
02	400	150.15	2+67.42	4+17.57
03	230	364.51	13+04.66	16+69.18



### MISTY MEADOW DRIVE - STA 0+00 TO 11+50



THE EXISTING AND PROPOSED CONDITIONS SHOWN ON THESE DRAWINGS ARE THE RESULT OF VISUAL SURVEY AND FIELD MEASUREMENTS. THE ENGINEER HAS NOT CONDUCTED A GEOTECHNICAL INVESTIGATION NOR HAS HE DETERMINED THE EXACT LOCATION AND DEPTH OF EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY UTILITIES ARE APPARENT OR IF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLOTTING.

**BEFORE YOU DIG CALL MISS DIG**

MISSISSIPPI STATE UNIVERSITY  
 MISSISSIPPI STATE UNIVERSITY  
 MISSISSIPPI STATE UNIVERSITY

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 Engineering  
 Engineers Surveyors Planners Landscape Architects

3121 E. GRAND RIVER AVE.  
 HOWELL, MI. 48843  
 800.246.6735 FAX 517.548.1670

PROJECT: **MISTY MEADOW**

PREPARED FOR: **GFG INVESTMENT PROPERTIES, LLC**

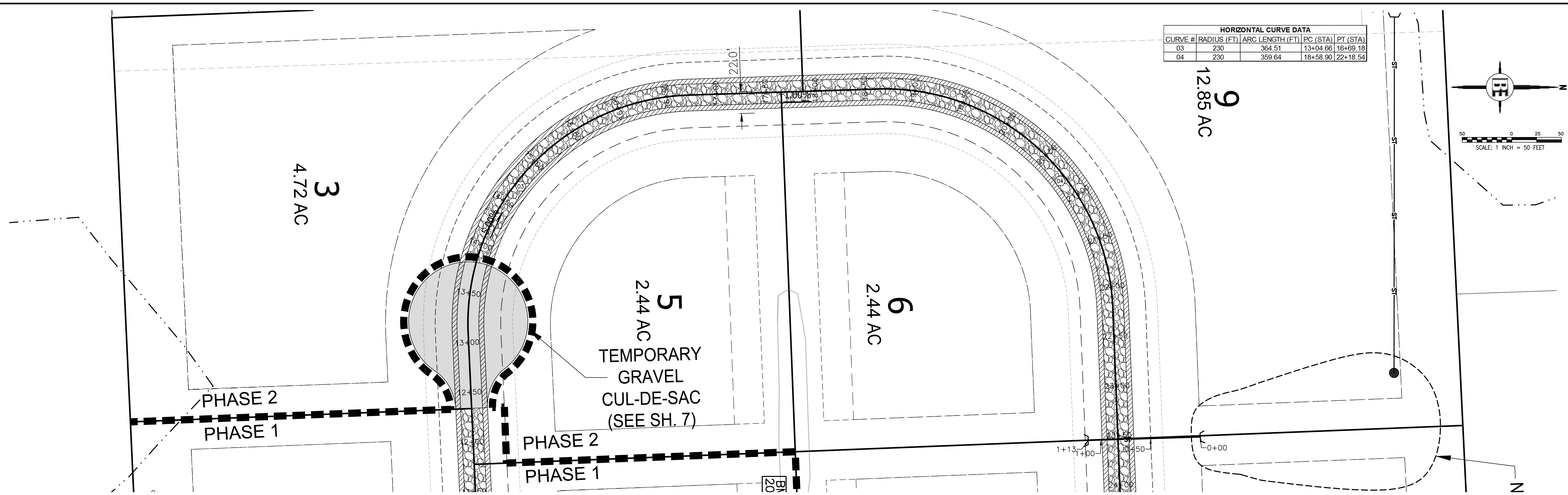
15264 BAILEY  
 TAYLOR, MI 48180  
 (734) 795-0078

TITLE: **PRIVATE ROAD PROFILE**

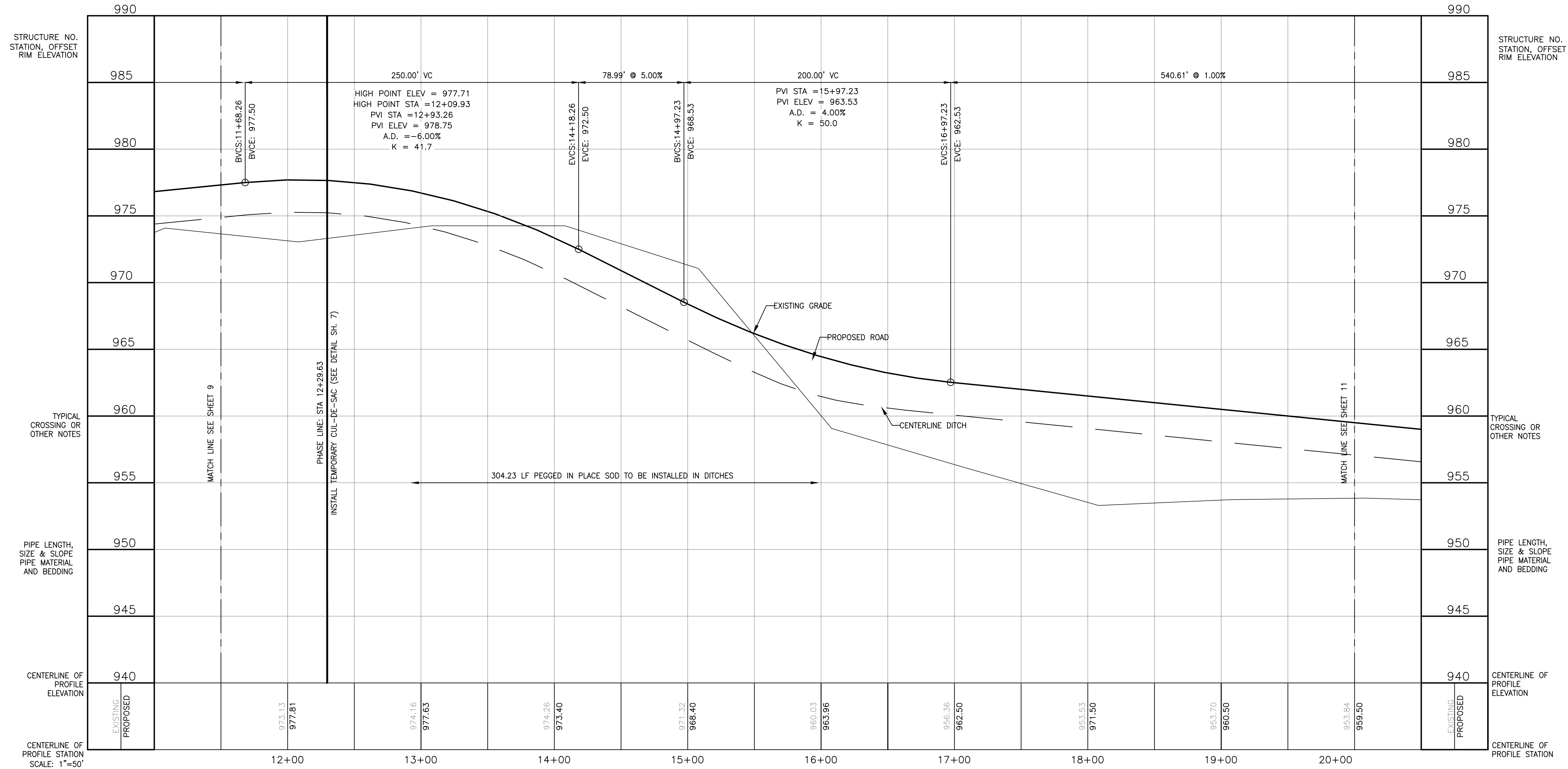
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1	KS	4/20/16	TOWNSHIP REVIEW
2	KS	5/19/16	TOWNSHIP REVIEW
3	KS	7/1/16	L.C.R.C. REVIEW
4	KS	8/2/16	PHASING
5	KS	10/27/16	ST SEWER PER L.C.D.C.
6	KS	1/25/19	GRAVEL RD PER CLIENT

DESIGNED BY: KS  
 DRAWN BY: KS  
 CHECKED BY: KS

SCALE: 1" = 50'  
 JOB NO. 15-179  
 DATE 3/23/2016  
 SHEET NO. 9



MISTY MEADOW DRIVE - STA 11+50 TO 20+00



THE LOCATION AND ELEVATION OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CONDITIONS APPEAR OR IF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLOTTING.

**BEFORE YOU DIG**  
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1-800-4-A-UTILITY

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3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
800.246.6735 FAX 517.548.1670

PROJECT: **MISTY MEADOW**

PREPARED FOR: **GFG INVESTMENT PROPERTIES, LLC**

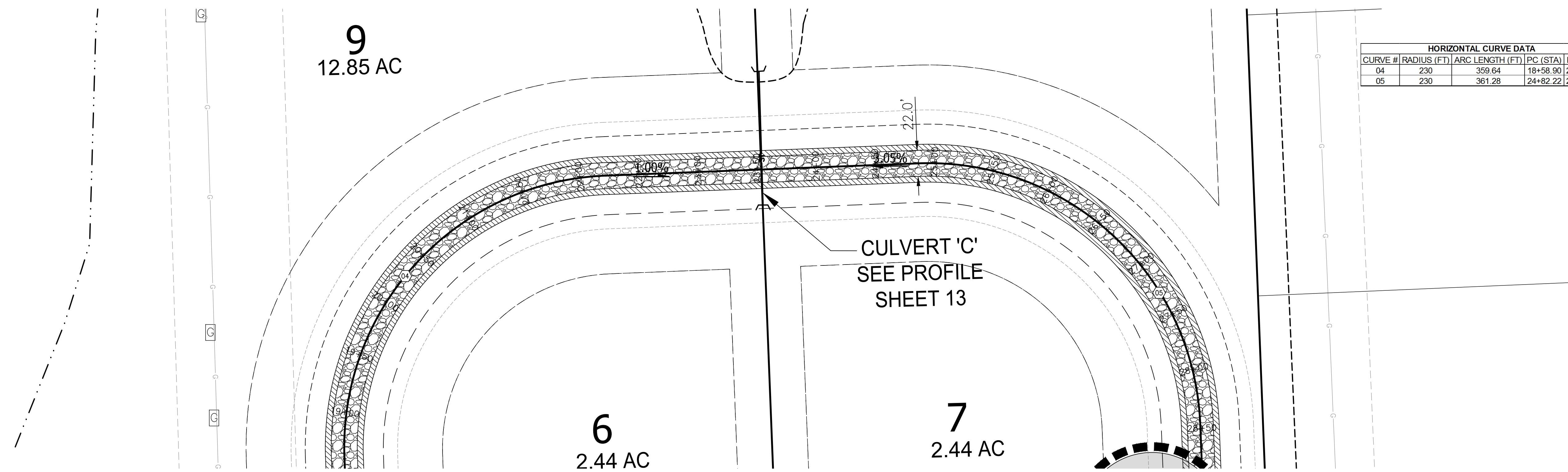
15264 BAILEY TAYLOR, MI 48180 (734) 795-0078

TITLE: **PRIVATE ROAD PROFILE**

NO	BY	DATE	REVISION PER
9	JA	1/25/19	GRAVEL RD PER CLIENT
4	KS	6/5/16	PHASING
3	KS	7/7/16	L.C.R.C. REVIEW
2	KS	5/19/16	TOWNSHIP REVIEW
1	KS	4/20/16	TOWNSHIP REVIEW
	NO		BY

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY:

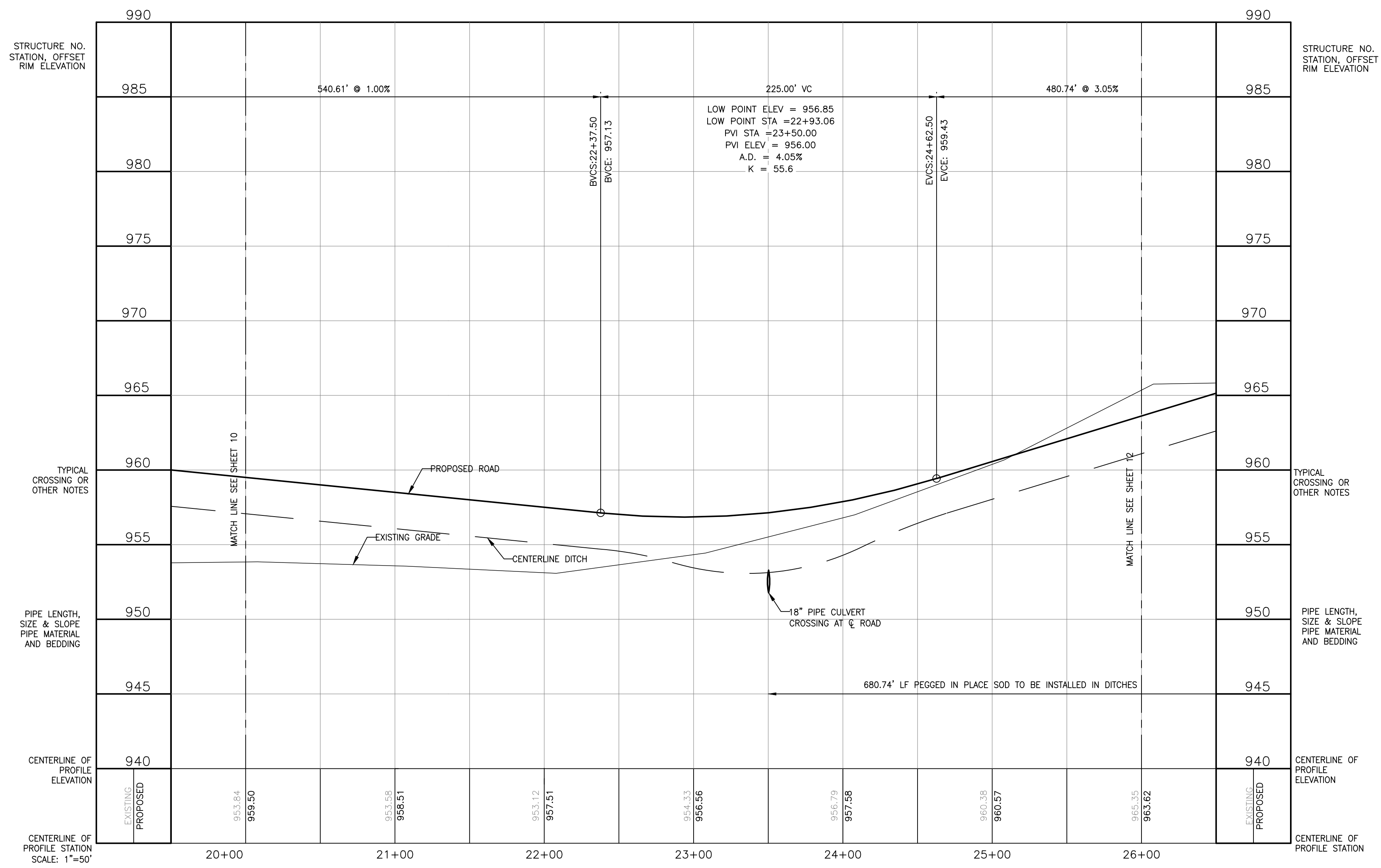
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JOB NO. 15-179  
DATE: 3/23/2016  
SHEET NO. **10**



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**BE**  
BEFORE YOU DIG  
CALL MISS DIG  
1-800-4-A-DETECT  
THE MISS DIG SERVICE

### MISTY MEADOW DRIVE - STA 20+00 TO 26+00



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HOWELL, MI. 48843  
800.246.6735 FAX 517.548.1670

PROJECT: **MISTY MEADOW**  
 PREPARED FOR: **GFG INVESTMENT PROPERTIES, LLC**  
 15264 BAILEY TAYLOR, MI 48180 (734) 795-0078  
 TITLE: **PRIVATE ROAD PROFILE**

NO	BY	REVISION PER	DATE
1	KS	TOWNSHIP REVIEW	4/20/16
2	KS	TOWNSHIP REVIEW	5/19/16
3	KS	L.C.R.C. REVIEW	7/1/16
4	KS	PHASING	8/5/16
9	JA	GRAVEL RD PER CLIENT	1/25/19

DESIGNED BY: KS  
 DRAWN BY: KS  
 CHECKED BY:  
 SCALE: 1" = 50'  
 JOB NO. 15-179  
 DATE: 3/23/2016  
 SHEET NO. **11**



RETENTION  
BASIN

8  
4.09 AC

7  
2.44 AC

PHASE 2  
PHASE 1

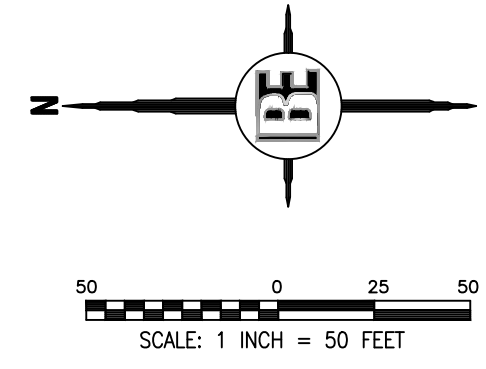
4  
2.68 AC

TEMPORARY  
OFFSET GRAVEL  
CUL-DE-SAC  
(SEE DETAIL  
ON SH. 7)

2  
3.23 AC

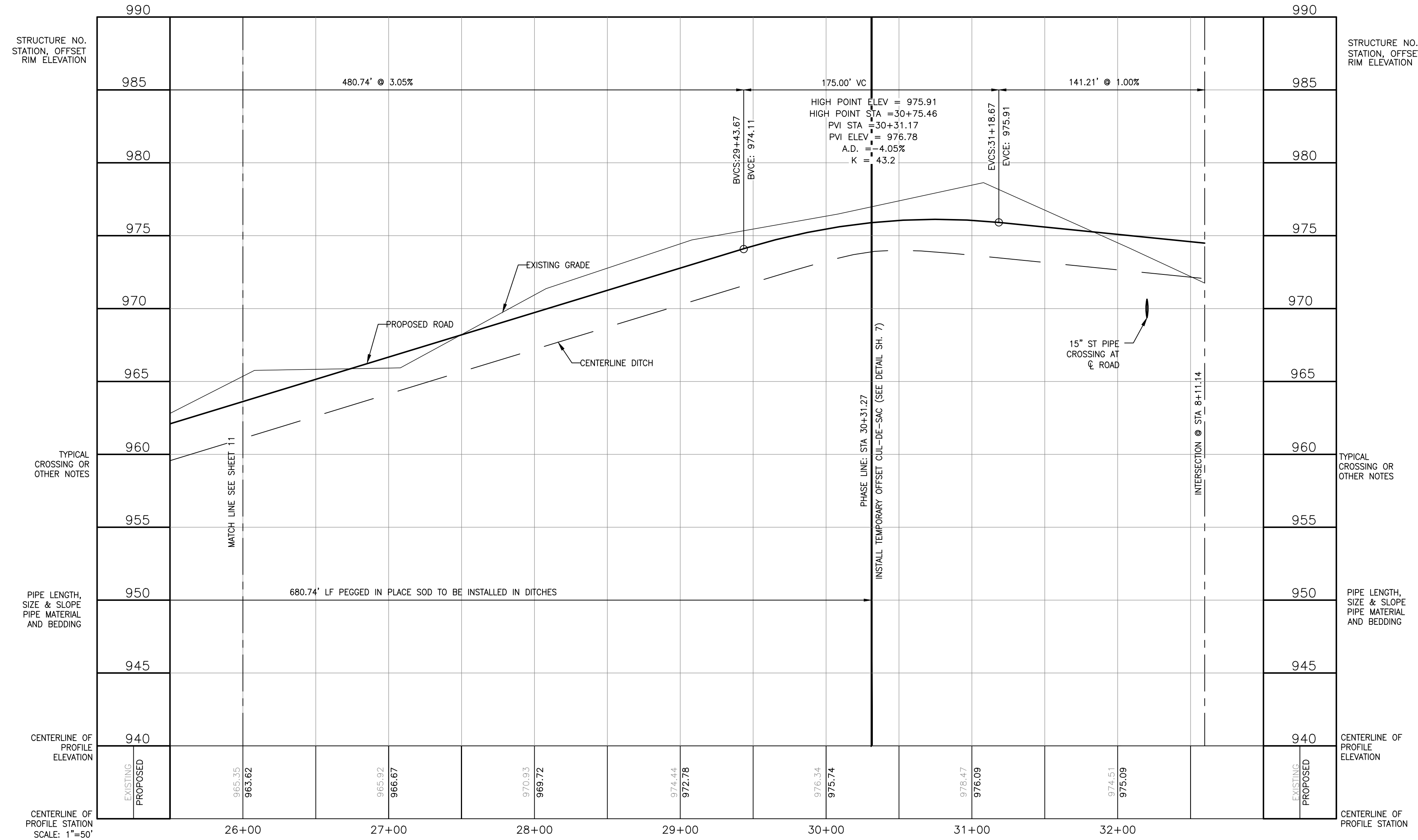
SOUTH DETENTION  
BASIN

HORIZONTAL CURVE DATA				
CURVE #	RADIUS (FT)	ARC LENGTH (FT)	PC (STA)	PT (STA)
05	230	361.28	24+82.22	28+43.50



BE  
BEFORE YOU DIG  
CALL MISS  
1-800-4-A-DETECT

MISTY MEADOW DRIVE - STA 26+00 TO INTERSECTION



PROJECT  
PREPARED FOR  
**MISTY MEADOW**  
**GFG INVESTMENT PROPERTIES, LLC**

15264 BAILEY  
TAYLOR, MI 48180  
(734) 795-0078

TITLE  
**PRIVATE ROAD PROFILE**

NO	BY	REVISION PER	DATE
9	JA	GRAVEL RD PER CLIENT PHASING	1/25/19
4	KS	L.C.R.C. REVIEW	6/5/16
3	KS	TOWNSHIP REVIEW	7/7/16
2	KS	TOWNSHIP REVIEW	5/19/16
1	KS	TOWNSHIP REVIEW	4/20/16

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY:

SCALE: 1" = 50'  
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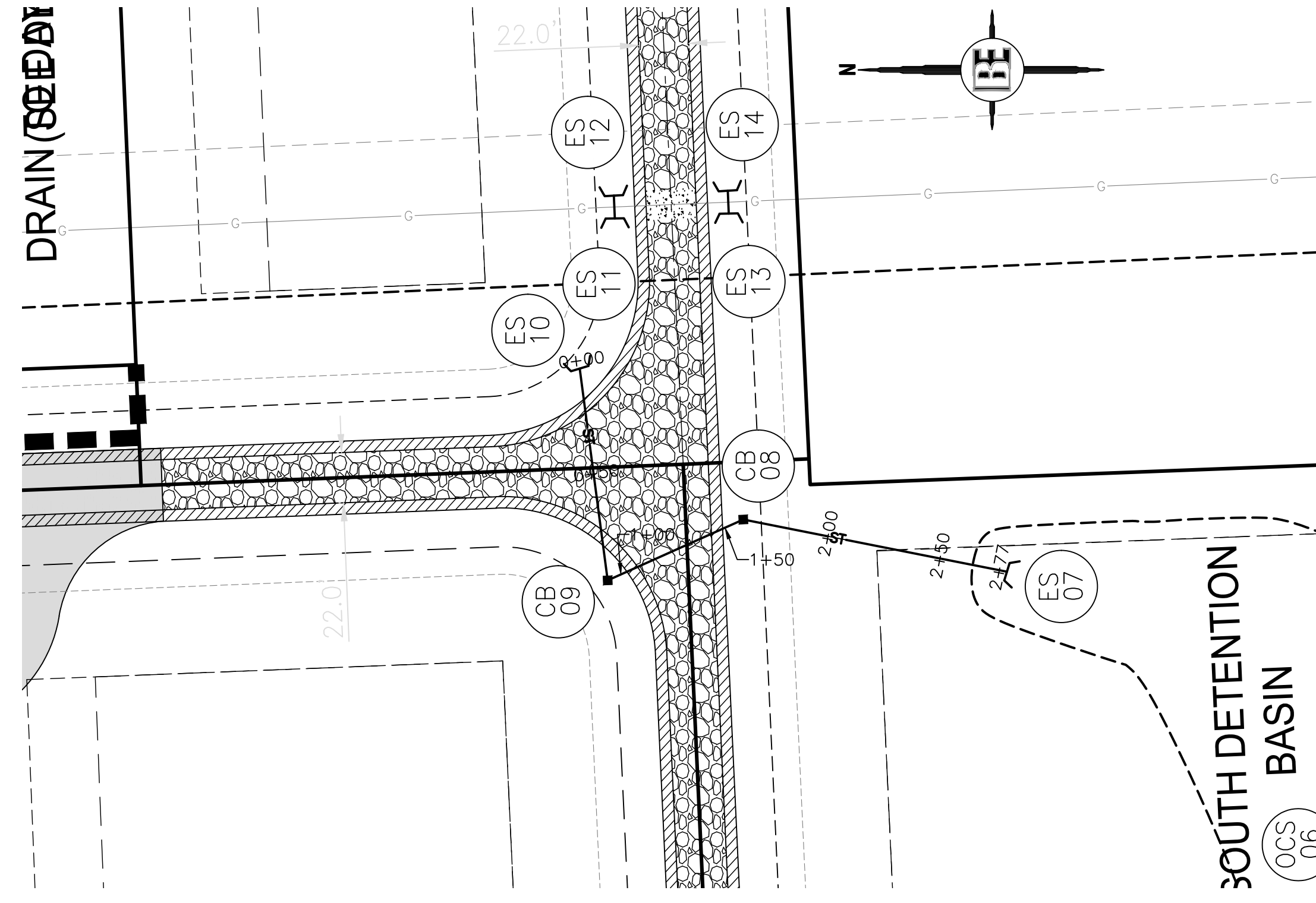
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HOWELL, MI. 48843

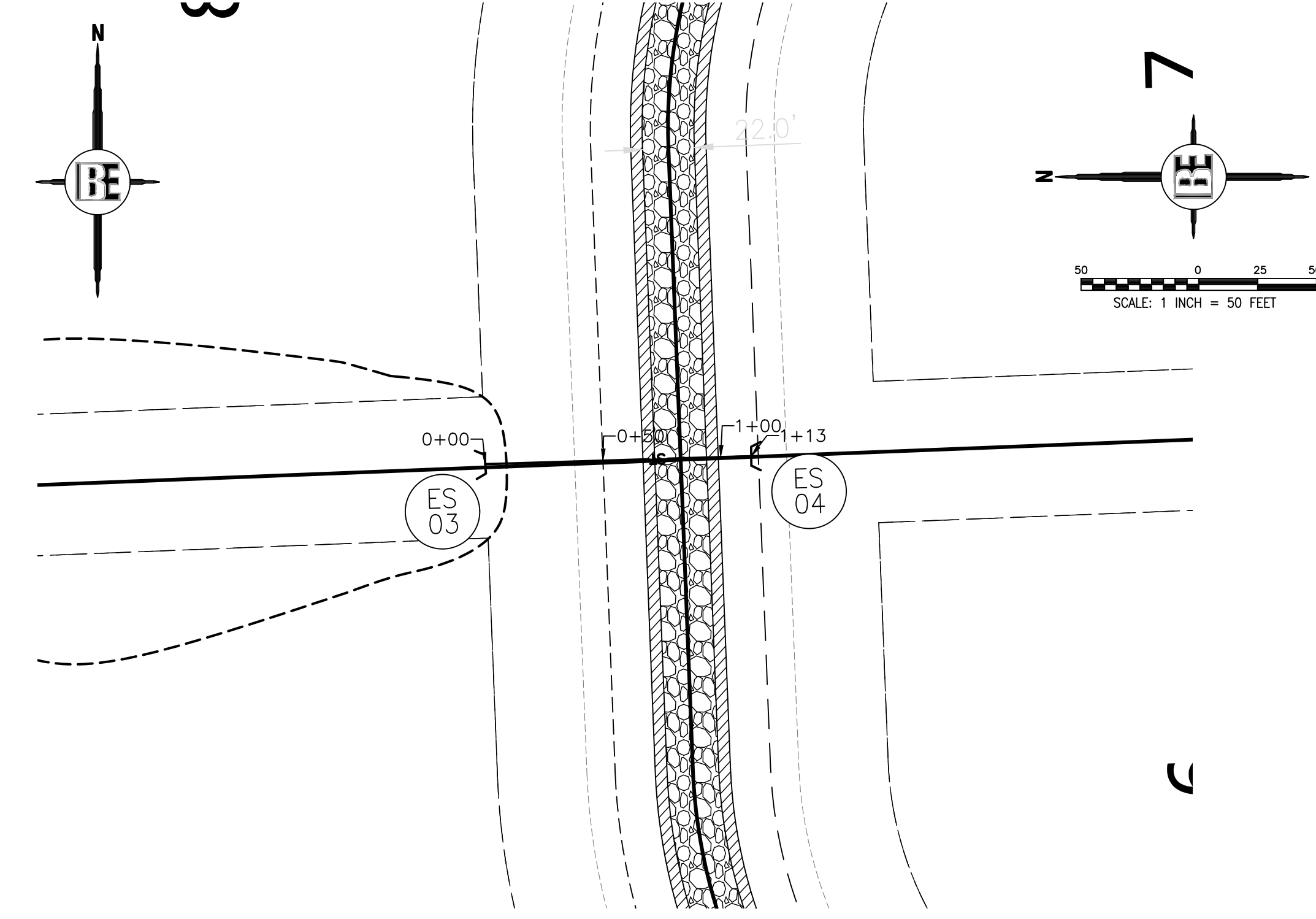
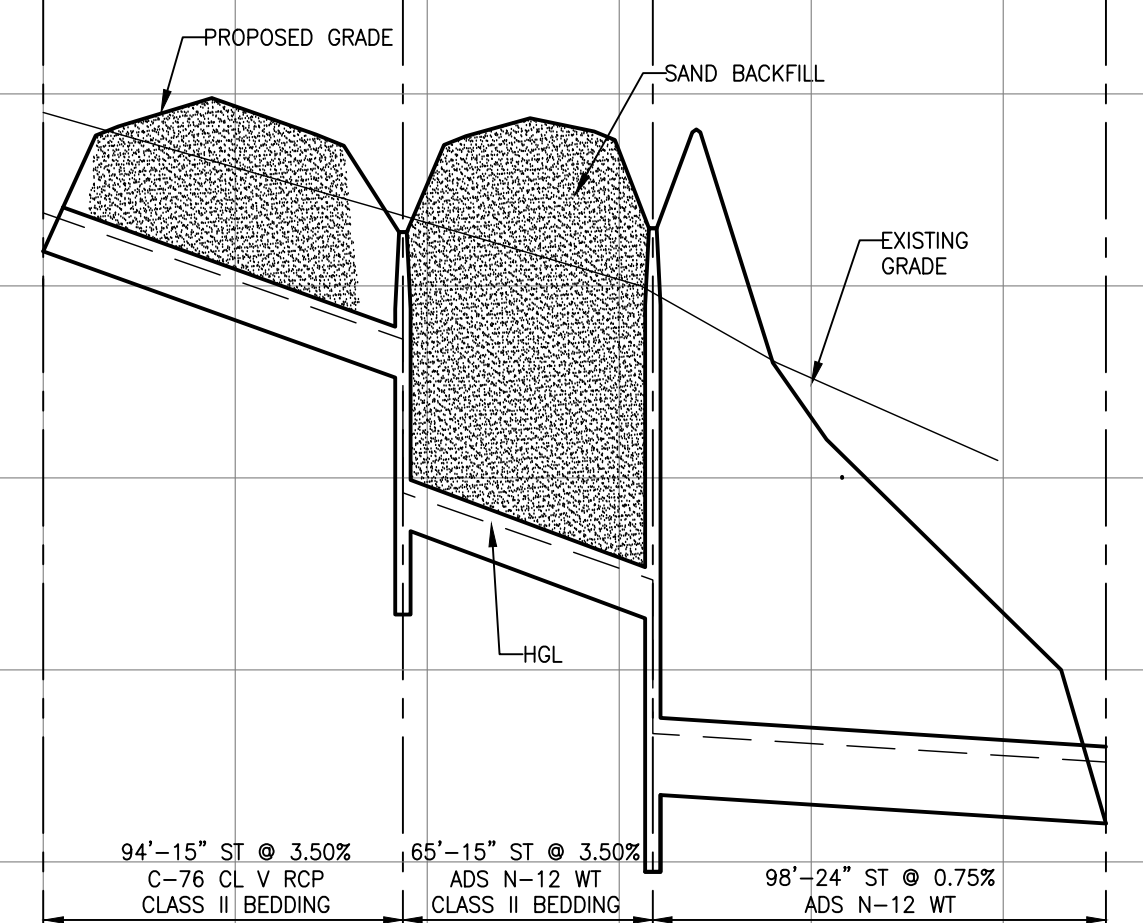
800.246.6735 FAX 517.548.1670

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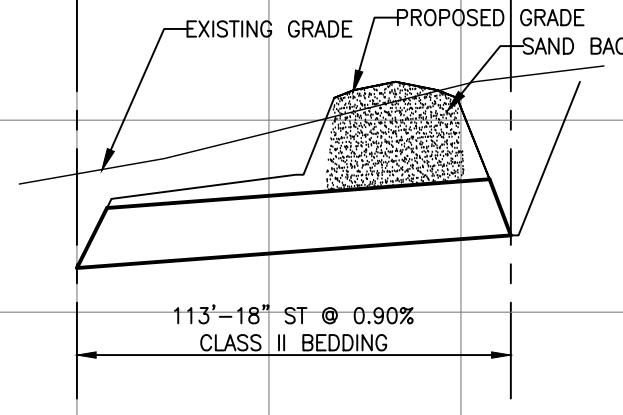
### STORM SEWER 'A' ES 10 TO ES 07

STRUCTURE NO. STATION, OFFSET RIM ELEVATION	STRUCTURE NO. STATION, OFFSET RIM ELEVATION
985 STA. 0+00.00 OFFSET 0'	985 STA. 2+76.51 OFFSET 0'
980	980
975	975
970	970
965	965
960	960
955 94'-15" ST @ 3.50% C-76 CL V R3 CLASS II BEDDING	955 65'-15" ST @ 3.50% ADS N-12 WT CLASS II BEDDING
950	950
945 15" INV. N = 970.90 15" INV. S = 970.81	945 24" INV. N = 956.74 24" INV. S = 956.74
940 EXISTING 974.61 PROPOSED 970.90	940 EXISTING 967.63 PROPOSED 966.26
CENTERLINE OF PROFILE STATION SCALE: 1"=50'	CENTERLINE OF PROFILE STATION SCALE: 1"=50'



### CULVERT 'B' ES 04 TO ES 03

STRUCTURE NO. STATION, OFFSET RIM ELEVATION	STRUCTURE NO. STATION, OFFSET RIM ELEVATION
990 STA. 0+00.00 OFFSET 0'	990 STA. +1+3.00 OFFSET 0'
985	985
980	980
975	975
970	970
965	965
960	960
955 EXISTING GRADE PROPOSED GRADE SAND BACKFILL	955 EXISTING GRADE PROPOSED GRADE SAND BACKFILL
950 113'-18" ST @ 0.90% CLASS II BEDDING	950 113'-18" ST @ 0.90% CLASS II BEDDING
945 18" INV. = 951.15	945 18" INV. = 952.17
940 EXISTING 953.60 PROPOSED 951.15	940 EXISTING 955.33 PROPOSED 952.17
CENTERLINE OF PROFILE STATION SCALE: 1"=50'	CENTERLINE OF PROFILE STATION SCALE: 1"=50'



THE LOCATION AND EXISTENCE OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CONDITIONS APPEAR OR IF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLAG.

**BEBOSS**  
Engineering  
Engineers Surveyors Planners Landscape Architects  
3121 E. GRAND RIVER AVE.  
HOWELL, MI. 48843  
800.246.6735 FAX 517.548.1670

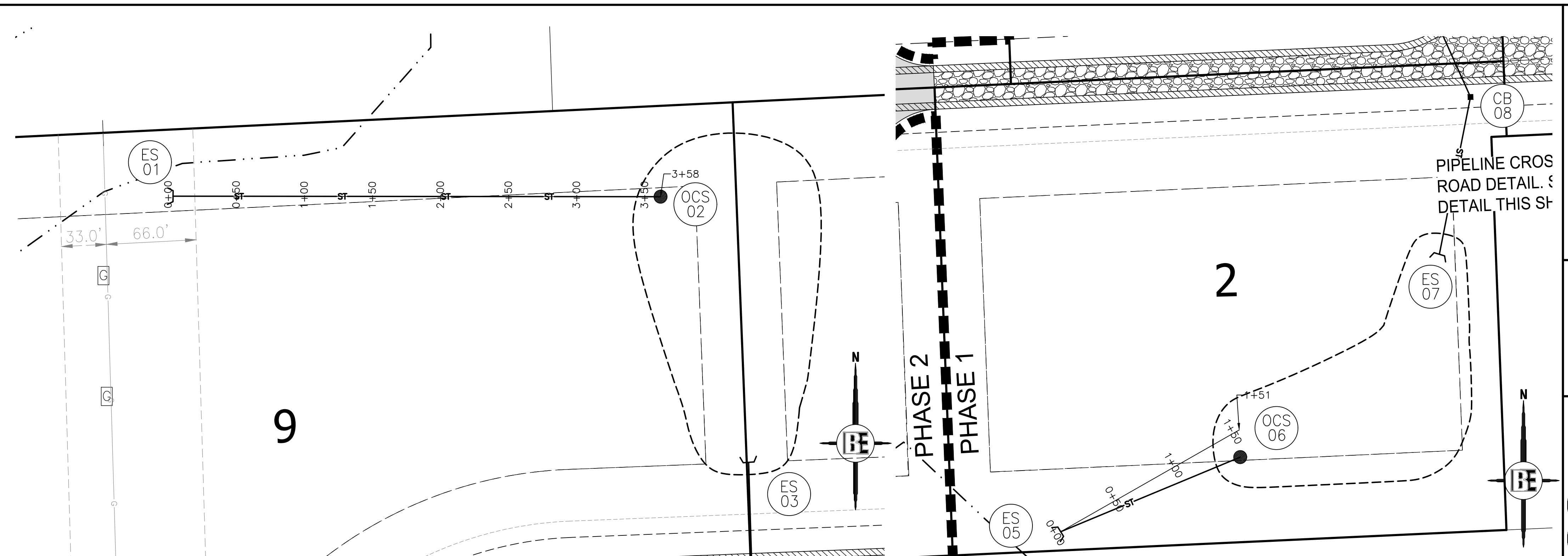
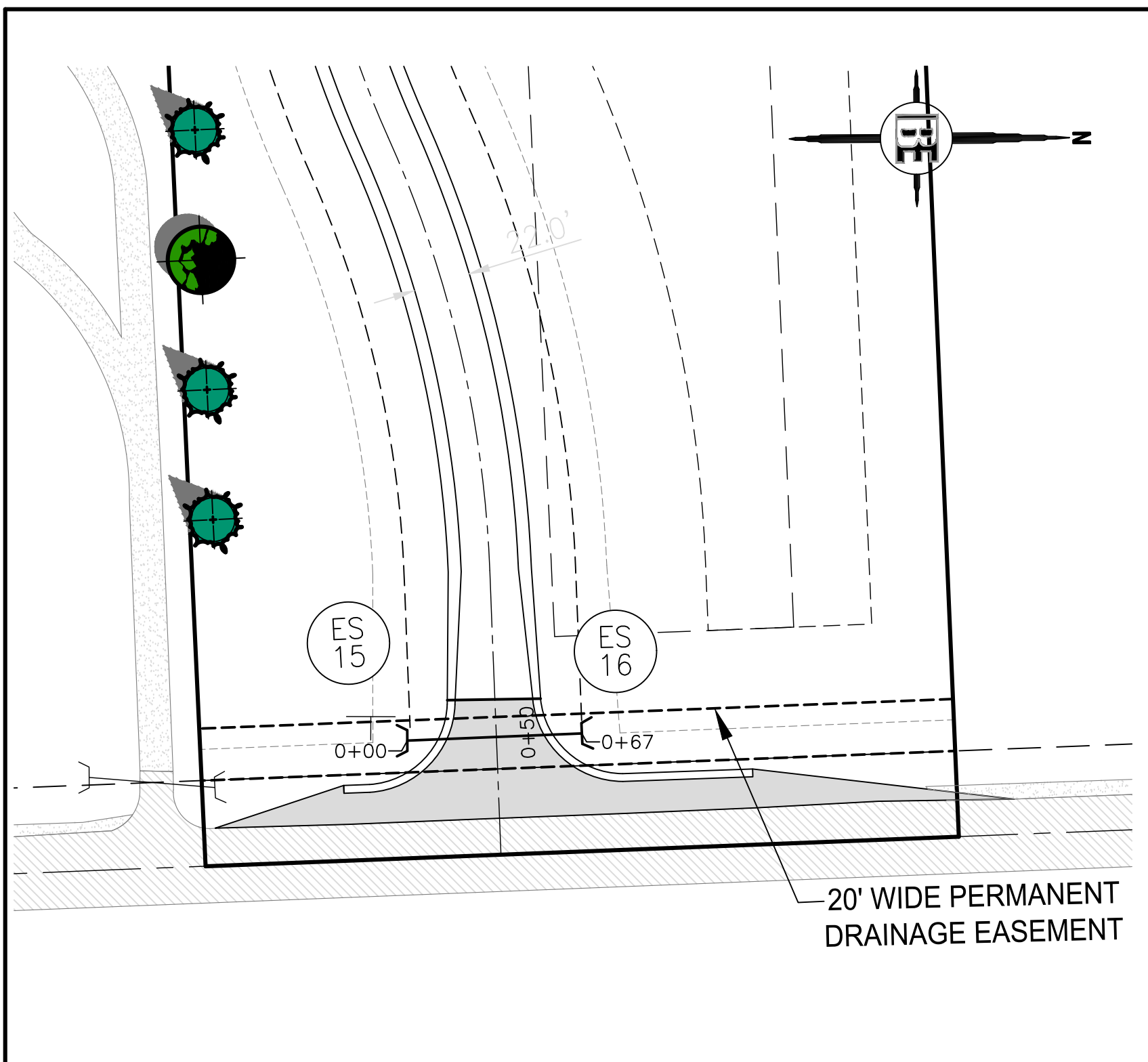
**MISTY MEADOW**  
PROJECT FOR  
**GFG INVESTMENT PROPERTIES, LLC**  
15264 BAILEY  
TAYLOR, MI 48180  
(734) 795-0078

**STORM SEWER PROFILE**

3	LA	GRAVEL RD PER CLIENT	1/25/19
6	TE	CONC. SLAB PER UTILITIES	7/15/17
7	KS	ST SEWER PER CLIENT	02/23/16
8	KS	ST SEWER PER L.C.D.C.	10/27/16
4	KS	PHASING	6/5/16
3	KS	L.C.R.C. REVIEW	7/1/16
2	KS	TOWNSHIP REVIEW	5/19/16
1	KS	TOWNSHIP REVIEW	4/20/16
NO	BY	REVISION PER	DATE

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY:  
SCALE: 1" = 50'  
JOB NO. 15-179  
DATE 3/23/2016  
SHEET NO. 13





**CULVERT 'E'  
ES 16 TO ES 15**

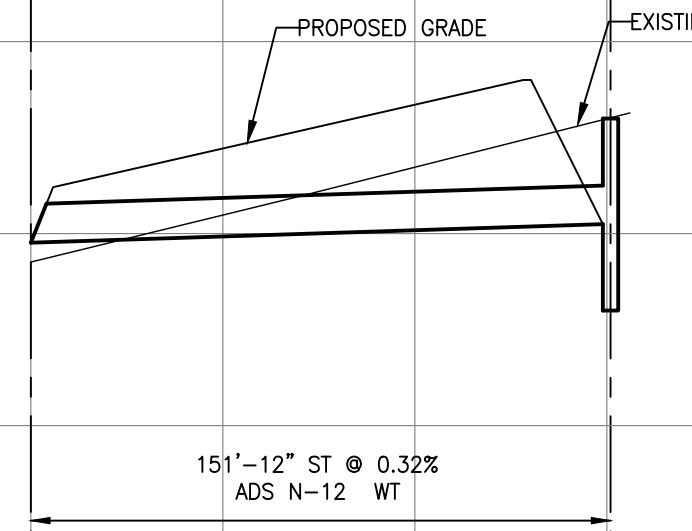
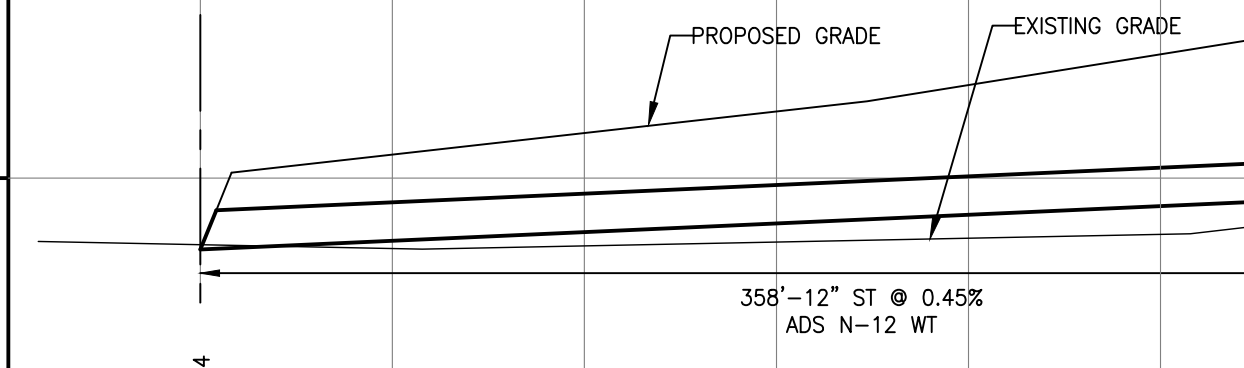
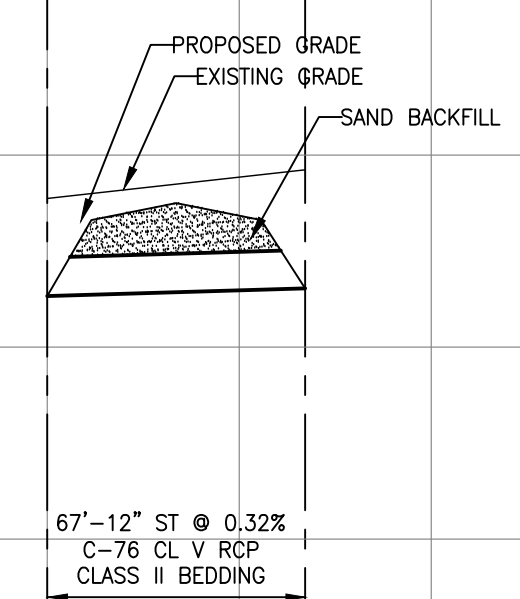
**OCS 2 TO ES 01**

**OCS 06 TO ES 05**

STRUCTURE NO. STATION, OFFSET RIM ELEVATION	1010	1010	1010
1005	STA. 0+00.00 OFFSET 0'		STA. 0+67.17 OFFSET 0'
1000			1000
995			995
990			990
985			985
980			980
975			975
970			970
965			965
960			960
CENTERLINE OF PROFILE ELEVATION	EXISTING 963.67 PROPOSED 981.33		EXISTING 981.33 PROPOSED 981.54
CENTERLINE OF PROFILE STATION SCALE: 1"=50'	0+00		1+00

STRUCTURE NO. STATION, OFFSET RIM ELEVATION	990	990	990
985	STA. 0+00.00 OFFSET 0'		STA. 3+58.20 OFFSET 0'
980			980
975			975
970			970
965			965
960			960
955			955
950			950
945			945
940			940
CENTERLINE OF PROFILE ELEVATION	EXISTING 948.14 PROPOSED 948.14		EXISTING 949.04 PROPOSED 954.02
CENTERLINE OF PROFILE STATION SCALE: 1"=50'	0+00		3+00

STRUCTURE NO. STATION, OFFSET RIM ELEVATION	990	990	990
985	STA. 0+00.00 OFFSET 0'		STA. 1+50.97 OFFSET 0'
980			980
975			975
970			970
965			965
960			960
955			955
950			950
945			945
940			940
CENTERLINE OF PROFILE ELEVATION	EXISTING 964.26 PROPOSED 954.77		EXISTING 956.73 PROPOSED 958.36
CENTERLINE OF PROFILE STATION SCALE: 1"=50'	0+00		1+00



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**BEFORE YOU DIG  
CALL MISS DIG**

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PROJECT: **MISTY MEADOW**

PREPARED FOR: **GFG INVESTMENT PROPERTIES, LLC**

15264 BAILEY TAYLOR, MI 48180 (734) 795-0078

TITLE: **STORM SEWER PROFILE**

9	JA	GRAVEL RD PER CLIENT PHASING	1/25/19
4	KS	L.C.R.C. REVIEW	6/5/16
3	KS	TOWNSHIP REVIEW	7/7/16
2	KS	TOWNSHIP REVIEW	5/19/16
1	KS	TOWNSHIP REVIEW	4/20/16
NO	BY	REVISION PER	DATE

DESIGNED BY: KS  
DRAWN BY: KS  
CHECKED BY: KS

SCALE: 1" = 50'  
JOB NO. 15-179  
DATE: 3/23/2016  
SHEET NO. **14**