

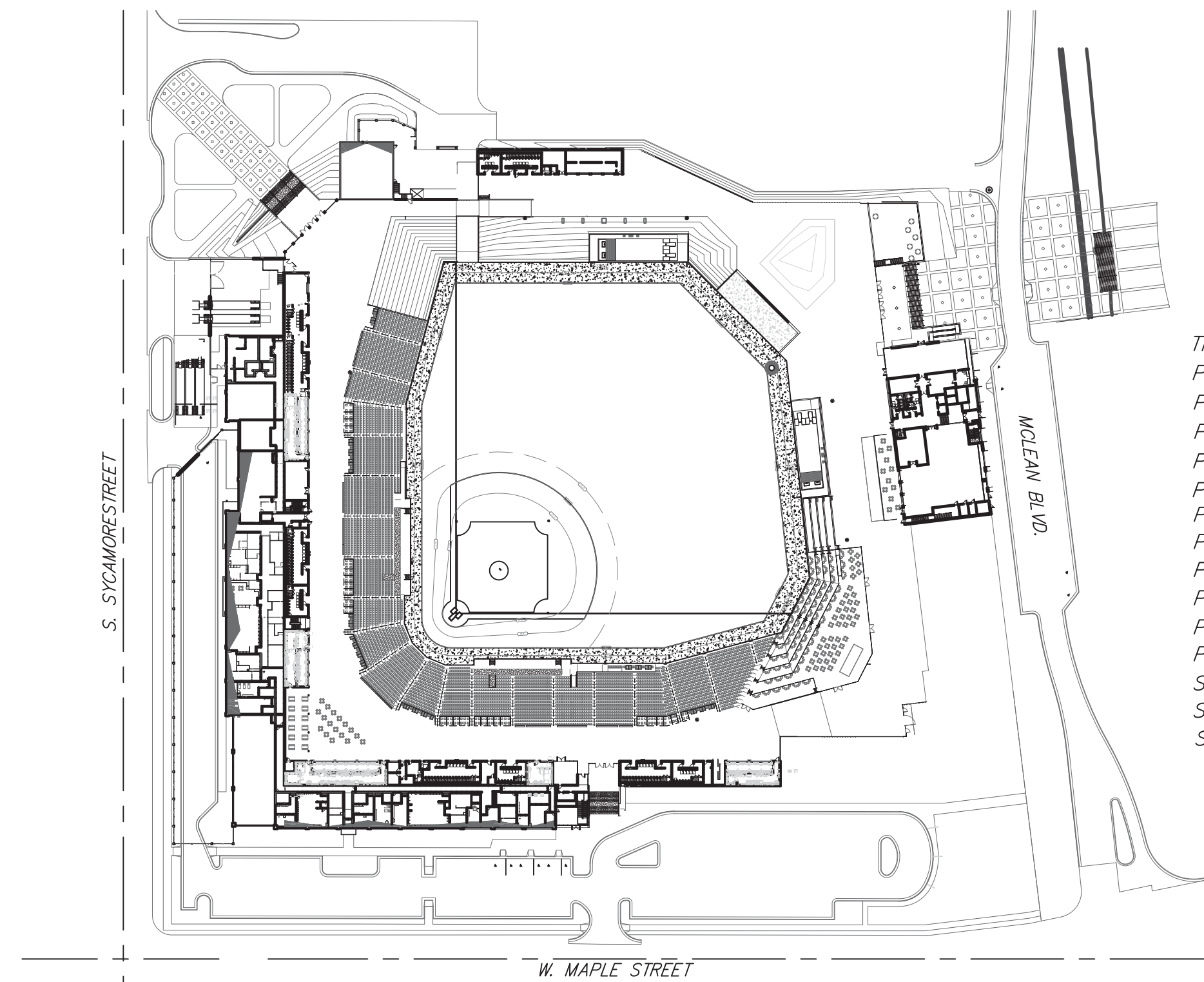
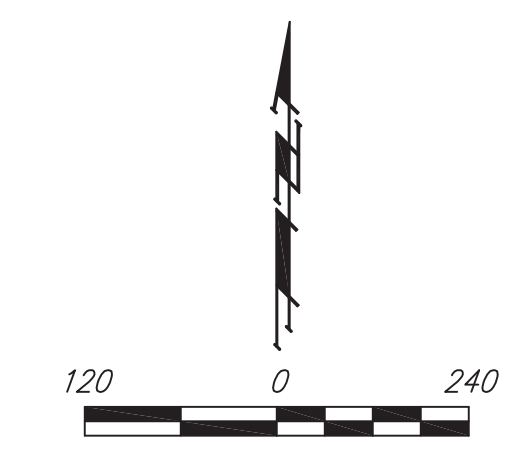
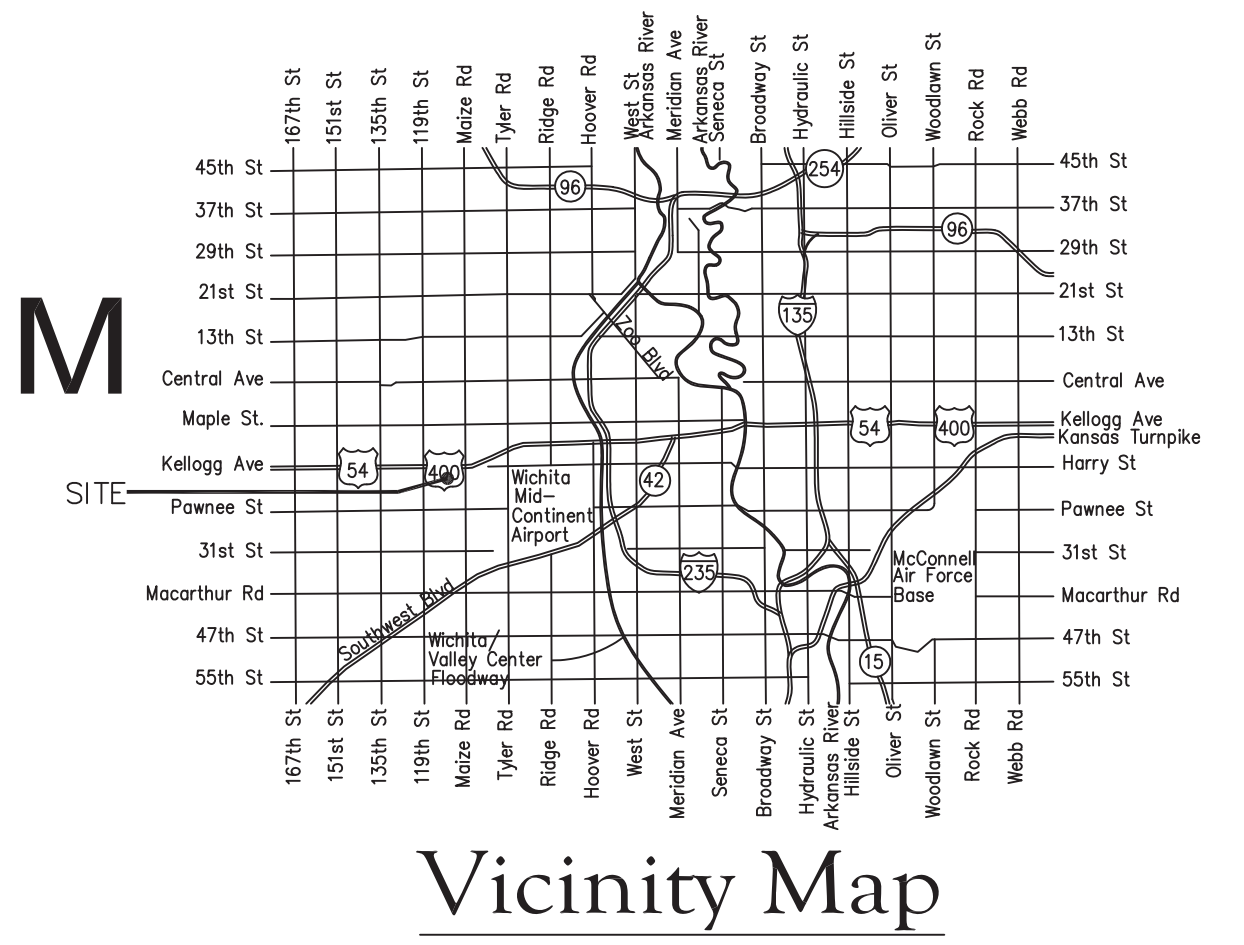
GENERAL NOTES:

- The Contractor shall comply with all applicable safety regulations. All construction shall be completed following current City Standard Specifications and Special Provisions.
- Contractor will be required to provide notice to utility companies a minimum of seventy-two (72) hours prior to any excavation, as follows:
Kansas One-Call 687-2470
The Contractor must notify the following in case of an emergency:
AT&T 1-800-246-8464
Black Hills Energy 1-800-694-8989
City of Wichita Water & Sewer 1-316-219-8921
City of Wichita Stormwater 1-316-268-4090
City of Wichita Traffic 1-316-268-4034
Cox Communications 1-888-249-3530
Kansas Gas Service 1-888-482-4950
Westor Energy 1-800-544-4857
- Utility service lines, poles, etc. are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations, in the opinion of the Engineer, that will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain will require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps. of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits will require additional archaeological investigations unless buried in a previously approved borrow location.
- Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the City Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
- The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days notice prior to start of construction.
- The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.
- The Engineering Division shall field locate water valves one time during construction when requested by the Contractor. It shall be the Contractor's responsibility to preserve such field locations during the construction process. Water valves, valve boxes or fire hydrants damaged during construction shall be repaired by Contractor at his own expense. Valve boxes and water meters within the project limits shall be adjusted to match final grades by the contractor.
- The Contractor shall notify the inspecting engineer and Tom Mason at 316-268-4574 with the City of Wichita with the anticipated construction start date and notify them of project completion. Staking and inspection for this project will be the responsibility of the Contractor.
- If traffic will be impacted by construction, a traffic control plan must be submitted and approved by the City Traffic Engineer, at traffic@wichita.gov before construction can begin. The Contractor shall be responsible for all traffic control measures to facilitate construction. All construction zone markings and signage shall conform to the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) as published by the US Dept. of Transportation, Federal Highway Administration. All costs associated with construction markings and signage shall be the Contractors responsibility.
- All elevations shown are NAVD 88, Unless otherwise denoted.
- All areas disturbed during construction that will not be under proposed pavement shall be restored to match existing conditions.

- Any sidewalk, drive approach, or street pavement removed to construct project must have a pavement cut permit and be replaced by the City contractor. Permits can be obtained by calling 316-268-4501 or 316-268-4480.
- City maintenance of storm sewer ends at the last structure in the easement or right-of-way.
- A portion of excess excavated material shall be mounded around manholes which extend more than one (1) foot above the existing ground. Such mound shall be constructed with new development a six (6) foot diameter flat top with 4 to 1 side slopes down to the original ground. The elevation of the flat top of the mound shall be 0.4 foot below the top to the manhole.
- Geotechnical report available upon request.
- Contractor shall limit the extent of trench openings overnight and weekends to less than 50 feet.
- The inspecting firm shall submit to the City Stormwater Maintenance Division a digital copy of the CCTV inspection of the conduits and structures following construction. The digital file formation shall be compatible with the City input template. A copy of the template is available upon request at 316-268-4090.
- The Contractor shall protect from damage and support existing utilities through construction as approved by the utility owner and the Engineer at the contractors expense.

STORM SEWER IMPROVEMENTS to serve WICHITA, KANSAS - MULTI-SPORT STADIUM NATURAL TURF PLAYING FIELD DOCUMENTS 300 S. SYCAMORE CITY OF WICHITA, KANSAS, 67202

Gary Janzen, P.E. City Engineer
Project Number
603 PPD (133119)



Sheet Index

Title Number	Title Sheet
PF-1.01	Playing Field Layout Details
PF-2.01	Playing Field Grading Plan
PF-3.01	Playing Field Sub-Drainage Plan
PF-3.02	Playing Field Sub-Drainage Outfall System Plan
PF-3.03	Playing Field Sub-Drainage Outfall Plan & Profile
PF-3.04	Playing Field Sub-Drainage Outfall Plan & Profile
PF-3.05	Playing Field Sub-Drainage Outfall Plan & Profile
PF-5.01	Playing Field Layout Details
PF-5.02	Playing Field Sub-Drainage Details
PS-1.00	Playing Field Pump Station Layout Design
PS-1.01	Playing Field Pump Station Layout Design
SW-301	Precast Manhole (Storm Sewer)
SW-303	Manhole/Inlet Frame and Cover (Storm Sewer)
SW-4.02	Headwall Details for 15", 18" and 24" Pipe

Benchmark List

- BM #201 - CHISELED SQUARE ON TOP OF CURB, NORTH SIDE OF FIRST MEDIAN NORTH OF MAPLE IN CENTER OF MCLEAN. ELEV. = 1298.72 (NAVD 88)
- BM #202 - CHISELED SQUARE ON CURB INLET, FIRST INLET ON SOUTH SIDE OF MAPLE, WEST OF MCLEAN AND MAPLE. ELEV. = 1295.47 (NAVD 88)
- BM #203 - CHISELED SQUARE ON NORTH CURB RETURN, NORTHWEST CORNER OF INTERSECTION OF SYCAMORE STREET AND BURTON STREET. ELEV. = 1299.50 (NAVD 88)
- BM #204 - CHISELED SQUARE ON TOP CURB, NORTHEAST CORNER OF EAST MOST ISLAND ALONG ALLEY WEST OF WEST PARKING LOT FOR METRO BAPTIST CHURCH PARKING, SOUTH OF HAYES COMPANY BUILDING. ELEV. = 1299.16 (NAVD 88)

AUGUST 2109

Design Consultants Information

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Stormwater Certification:
New Development or (Redevelopment) (Circle One)
Stormwater Permit # SW2019-0003
NOI Permit # S-AR94-1512 KSR114293
These construction plans were prepared in accordance with the current Stormwater management Regulations as set forth in the City of Wichita's Stormwater Management Ordinance 16.32 and the policies/guidelines presented in the Wichita/Sedgwick County Stormwater Manual.
Site Area (Acres) = 17
Disturbed Area (Acres) = 15
Water Quality Treatment: SNOUT
Downstream Channel Protection: N/A
Detention: N/A
The BMP used for this development is SNOUT

APPROVED AS NOTED
BY WICHITA PUBLIC WORKS ENGINEERING
AND STORMWATER DIVISION
Engineering APPROVED
By Seth Gotchey at 8:15 am, Sep 18, 2019
Stormwater APPROVED
By Joe Hickle at 8:19 am, Sep 18, 2019

NOTE TO CONTRACTORS
Inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer in the state of Kansas. No work shall be performed the Contractor without such inspection nor shall any work be commenced without written authorization by City Engineering. All Construction and Materials shall comply with the current City of Wichita Specifications and Standards and Special Provisions. (on file and available at Wichita.gov).
An approved copy of these plans signed by City staff are required on-site.

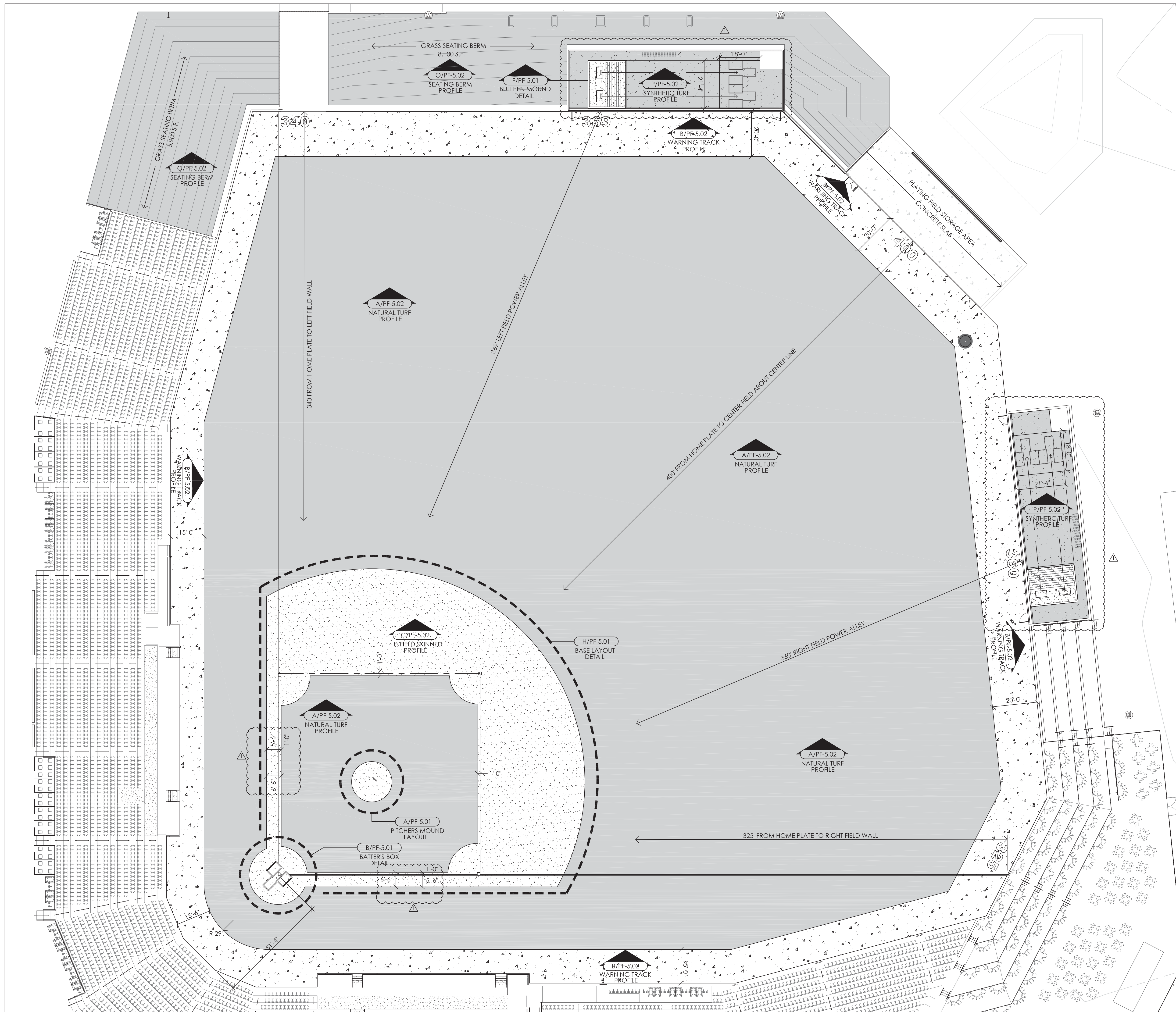
Approved Nationwide Permit Number: NW-2019-00628



Ravi Devaguptapu, P.E.
P.E. No. 22820
State of Kansas

Reconciliation Set: CPR 30 9/17/2019 DELTA 28

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LAYOUT NOTES:

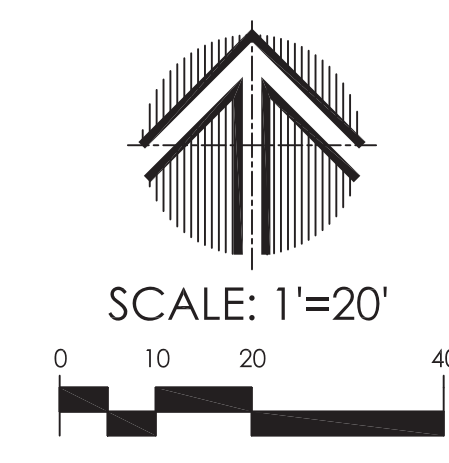
1. VERIFY LOCATION AND ELEVATION OF PLAYING FIELD STARTING POINT, PRIOR TO PERFORMING ANY OTHER WORK.
2. ALL NATURAL FIELD MARKINGS ARE FOR REFERENCE ONLY.
3. ALL DIMENSION UNITS ARE GIVEN IN FEET.
4. DELIVERY AND STORAGE OF ALL PLAYING FIELD MATERIALS TO BE COORDINATED WITH ON SITE CONSTRUCTION MANAGER.
5. ALL PLAYING FIELD MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY AND PLACEMENT ON THE PLAYING FIELD BY THE ENGINEER OF RECORD.
6. ALL FENCING AND PAD LAYOUT TO BE DESIGNED BY OTHERS. REFER TO ARCHITECTURAL PLANS.
7. PLAYING FIELD LAYOUT AS PER TEAMS REQUIREMENTS.
8. CONTRACTOR TO INSURE 90° ANGLES HAVE BEEN ESTABLISHED PRIOR TO CONSTRUCTION OF FOUL BALL POST INSTALLATION.
9. BULLPENS MOUNDS TO HAVE FULL PITCHER MOUND BENCH CONSTRUCTION 10" INCHES ABOVE HOME PLATE ELEVATION.
10. RE: ARCHITECTURAL DRAWINGS FOR OUTFIELD FENCE, PADS AND STADIUM WALL LAYOUT & MATERIALS NOTES.
11. IN THE EVENT OF ANY DISCREPANCIES FOUND PRIOR TO OR DURING CONSTRUCTION SHALL BE IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO ANY ADDITIONAL CONSTRUCTION ACTIVITY.
12. REFER TO ARCHITECTURAL PLANS FOR THE FIELD WALL AND FOUL POLE LOCATIONS.
13. REFER TO ARCHITECTURAL PLANS FOR THE FINAL FOOTBALL FIELD GOAL POST LAYOUT. PLAYING FIELD CONTRACTOR IS RESPONSIBLE FOR INSTALLING GOAL POST FOUNDATION SYSTEMS.
14. THE PLAYING FIELD CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE BATTING TUNNELS IMPROVEMENTS. REFER TO THE ARCHITECTURAL PLANS FOR SCOPE OF WORK AND LOCATIONS.

MATERIALS LEGEND:

- NATURAL TURF PROFILE / SODDED AREA: 103,026± S.F. / 2.36 AC. RE: A/PF-5.02
- WARNING TRACK PROFILE AREA: 22,285± S.F. / 0.51 AC. RE: B/PF-5.02
- INFIELD SKIN (CLAY) PROFILE AREA: 10,867± S.F. / 0.25 AC. RE: C/PF-5.02
- SYNTHETIC TURF AREA: 4,260± S.F. / 0.098 AC.

SYNTHETIC TURF NOTES:

1. SYNTHETIC TURF COLOR SHALL BE GREEN FOR GRASS AREAS. PILE HEIGHT OF 1.6" INCHES OVER GRAVEL DRAINAGE BASE MATERIAL.
2. SYNTHETIC TURF COLOR SHALL BE BRICK FOR CATCHERS AREAS: 18'-0" X 21'-4"
3. SYNTHETIC TURF INLAYS FOR BATTER'S BOXES SHALL BE WHITE IN COLOR.
4. SYNTHETIC TURF INLAYS FOR HOME PLATES SHALL BE WHITE IN COLOR.



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DLR Group
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 Overland Park, Kansas 66213-4748
 Tel: +1.913.897.7811

WICHITA, KANSAS - MULTI-SPORT STADIUM

Wichita, Kansas

Project Package:
CONSTRUCTION DOCUMENTS

Date: SEPTEMBER 13, 2019

Designed by: WJM Drawn by: WJM, JR.

Project No.: 619004-01 Checked by: RD

Sheet Title:

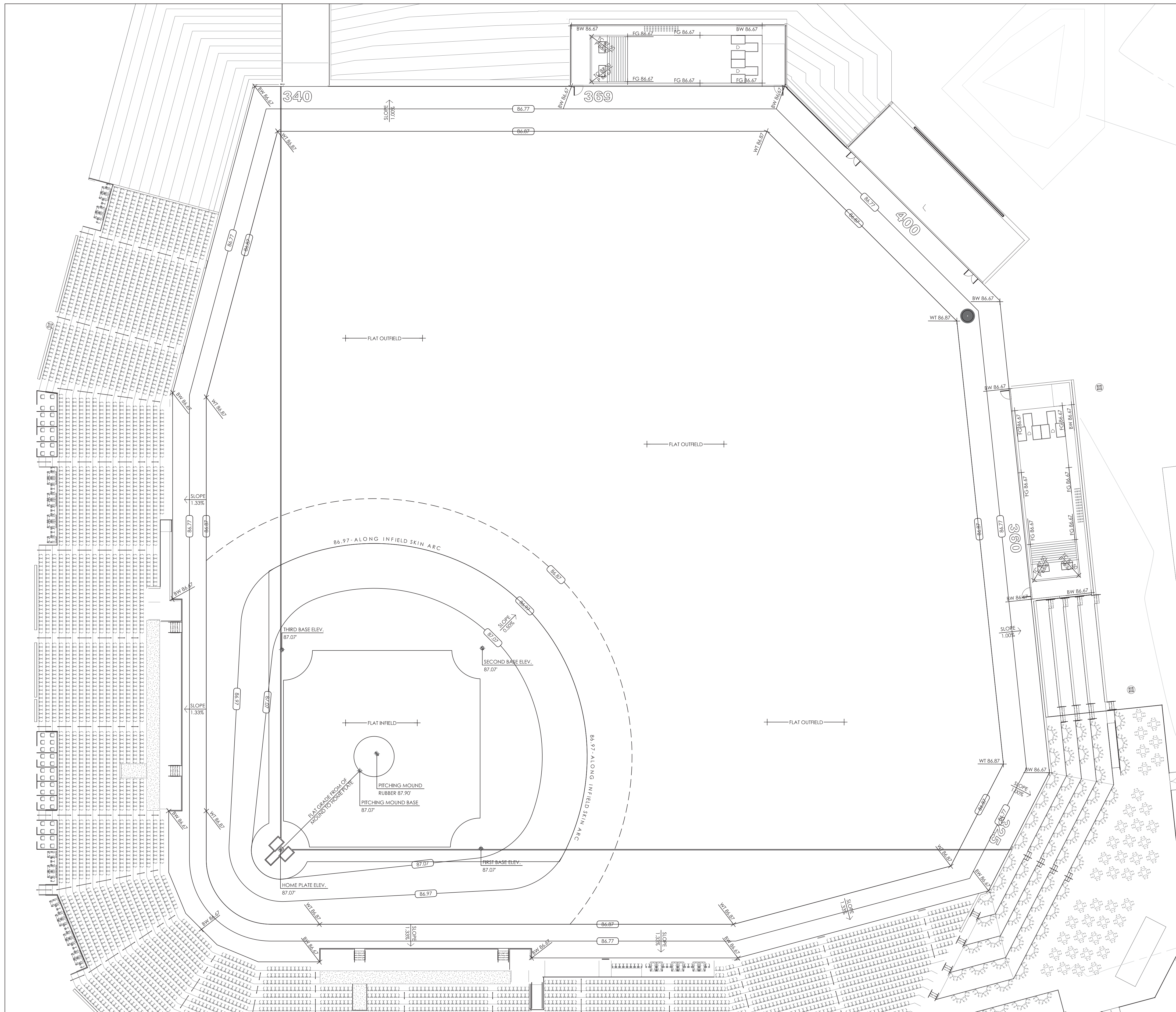
PLAYING FIELD LAYOUT DETAILS

REVISIONS		
No.	Date	Comment
1	9/13/19	Baselines/Bullpens/Synthetic Turf

Sheet No.:

PF-1.01

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GRADING LEGEND:

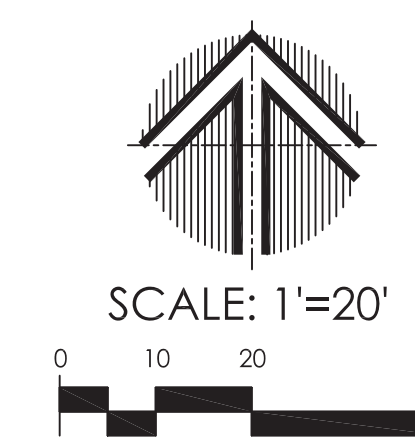
- 29.20 — PROPOSED MAJOR CONTOUR
- 29.2 — PROPOSED MINOR CONTOUR
- BW XX.XX BASE OF WALL FINISHED GRADE ELEVATION
- WT XX.XX EDGE OF WARNING TRACK FINISHED GRADE ELEVATION
- TC XX.XX TOP OF BULLEN CURB ELEVATION

GRADING NOTES:

1. VERIFY LOCATION AND ELEVATION OF PLAYING FIELD STARTING POINT, PRIOR TO PERFORMING ANY OTHER WORK.
2. ALL NATURAL FIELD MARKINGS ARE FOR REFERENCE ONLY.
3. ALL DIMENSION UNITS ARE GIVEN IN FEET.
4. DELIVERY AND STORAGE OF ALL PLAYING FIELD MATERIALS TO BE COORDINATED WITH ON SITE CONSTRUCTION MANAGER.
5. ALL PLAYING FIELD MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY AND PLACEMENT ON THE PLAYING FIELD BY THE ENGINEER OF RECORD.
6. ALL FENCING AND PAD LAYOUT TO BE DESIGNED BY OTHERS. REFER TO ARCHITECTURAL PLANS.
7. PLAYING FIELD LAYOUT AS PER TEAMS REQUIREMENTS.
8. CONTRACTOR TO INSURE 90° ANGLES HAVE BEEN ESTABLISHED PRIOR TO CONSTRUCTION OF FOUL BALL POST INSTALLATION.
9. BULLPENS MOUNDS TO HAVE FULL PITCHER MOUND BENCH CONSTRUCTION 10" INCHES ABOVE HOME PLATE ELEVATION.
10. RE: ARCHITECTURAL DRAWINGS FOR OUTFIELD FENCE, PADS AND STADIUM WALL LAYOUT & MATERIALS NOTES.
11. IN THE EVENT OF ANY DISCREPANCIES FOUND PRIOR TO OR DURING CONSTRUCTION SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO ANY ADDITIONAL CONSTRUCTION ACTIVITY.
12. REFER TO ARCHITECTURAL PLANS FOR THE FIELD WALL AND FOUL POLE LOCATIONS.
13. GRADE FIELD TO A SMOOTH, EVEN PLAYING SURFACE TO THE SPOT ELEVATIONS AND CONTOURS INDICATED.
14. CONTOURS INTERVALS ONE-TENTH FOOT, UNLESS OTHERWISE INDICATED.

AS-BUILTS REQUIRED:

1. CONTRACTOR SHALL SUBMIT AN AS-BUILT SURVEY ON A 20'X20' GRID OF THE WELL COMPACTED SUB-GRADE FOR APPROVAL.
2. CONTRACTOR SHALL SUBMIT AN AS-BUILT SURVEY ON A 20'X20' GRID OF THE FINISHED 4" GRAVEL DRAINAGE BLANKET FOR APPROVAL.
3. CONTRACTOR SHALL SUBMIT AN AS-BUILT SURVEY ON A 20'X20' GRID OF THE FINISHED 10" ROOTZONE BLANKET FOR APPROVAL.
4. CONTRACTOR SHALL SUBMIT AN AS-BUILT SURVEY OF THE ENTIRE FINAL CONSTRUCTED PLAYING FIELD. RE: SPECIFICATION.
5. ALL AS-BUILT SURVEYS MUST BE SIGNED AND SEALED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAW AND SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL.



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WICHITA, KANSAS - MULTI-SPORT STADIUM

Wichita, Kansas

Project Package:
CONSTRUCTION DOCUMENTS

Date: SEPTEMBER 13, 2019

Designed by: WJM Drawn by: WJM, JR.

Project No.: 619004-01 Checked by: RD

Sheet Title:

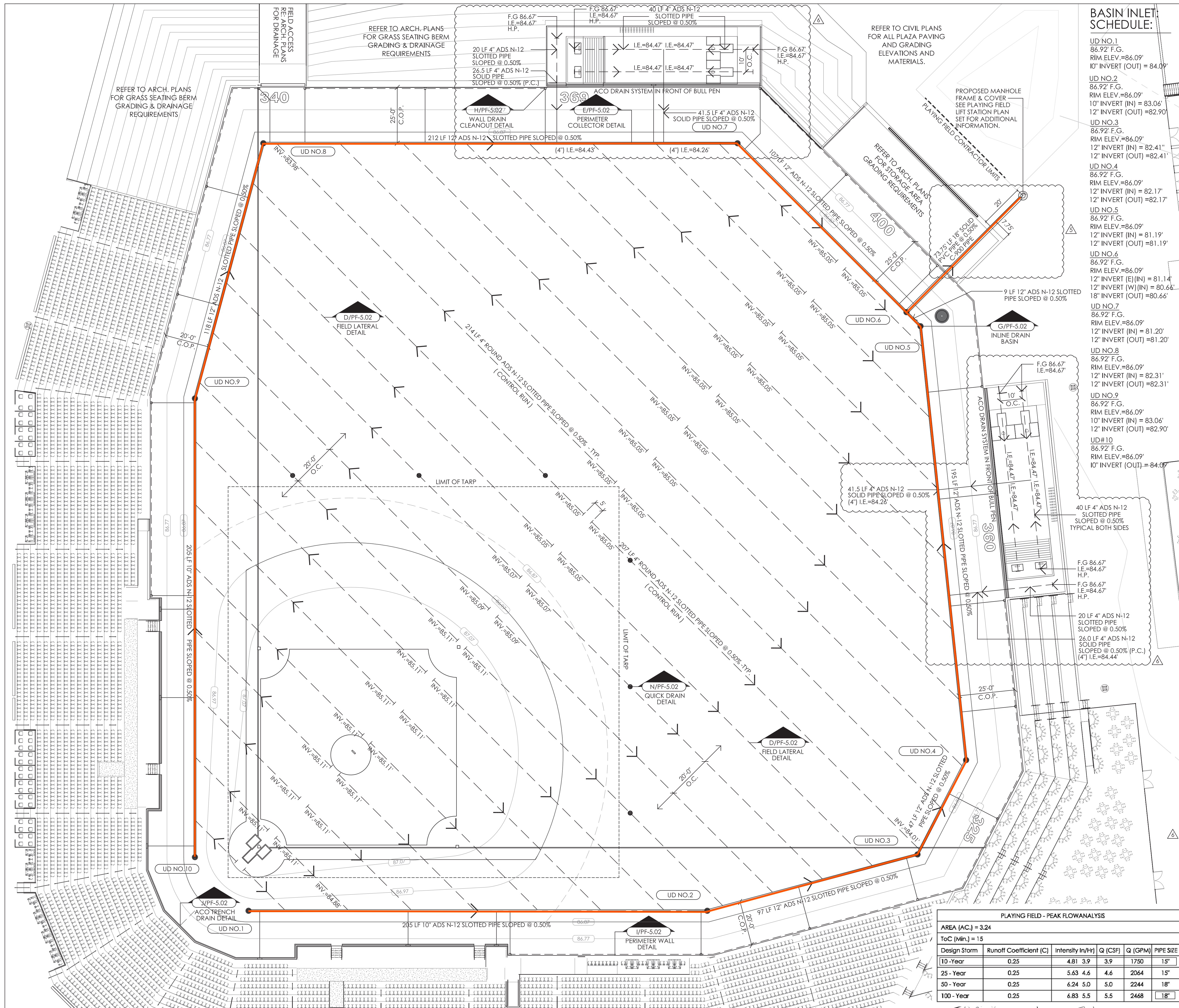
PLAYING FIELD GRADING PLAN

REVISIONS		
No.	Date	Comment

Sheet No.:

PF-2.01

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BASIN INLET SCHEDULE:

UD NO.1	86.92' F.G.	RIM ELEV.=86.09'	10" INVERT (OUT) = 84.09'
UD NO.2	86.92' F.G.	RIM ELEV.=86.09'	10" INVERT (IN) = 83.06'
			12" INVERT (OUT) = 82.90'
UD NO.3	86.92' F.G.	RIM ELEV.=86.09'	12" INVERT (IN) = 82.41"
			12" INVERT (OUT) = 82.41"
UD NO.4	86.92' F.G.	RIM ELEV.=86.09'	12" INVERT (IN) = 82.17'
			12" INVERT (OUT) = 82.17'
UD NO.5	86.92' F.G.	RIM ELEV.=86.09'	12" INVERT (IN) = 81.19'
			12" INVERT (OUT) = 81.19'
UD NO.6	86.92' F.G.	RIM ELEV.=86.09'	12" INVERT (IN) = 81.14'
			12" INVERT (OUT) = 81.14'
UD NO.7	86.92' F.G.	RIM ELEV.=86.09'	12" INVERT (IN) = 80.66'
			18" INVERT (OUT) = 80.66'
UD NO.8	86.92' F.G.	RIM ELEV.=86.09'	12" INVERT (IN) = 82.31'
			12" INVERT (OUT) = 82.31'
UD NO.9	86.92' F.G.	RIM ELEV.=86.09'	10" INVERT (IN) = 83.06'
			12" INVERT (OUT) = 82.90'
UD NO.10	86.92' F.G.	RIM ELEV.=86.09'	10" INVERT (OUT) = 84.09'

SUBDRAINAGE LEGEND:

- TOTAL PLAYING FIELD BASIN AREA: 141,375 S.F.
- PERIMETER COLLECTOR PIPE SLOTTED ADS N-12. SIZE AS INDICATED. SLOPE AT 0.50%, OR AS NOTED.
- FIELD LATERAL-TYPE AND SIZE INDICATED ON PLAN. SLOPE AT A MIN. OF 0.50%.
- INLINE DRAIN BASIN LOCATION PER PLAN (REFER TO DETAIL: G/PF-5.02)
- DIRECTION OF WATER FLOW
- LATERAL DESIGN DATA INV=XX.XX, I.E.=XX.XX.
- SOLID ADS N-12 CONNECTION FOR BULLPEN DRAIN, SLOTTED DRAIN AT WARNING TRACK TRENCH DRAIN AND OUTFALL PIPE.
- 6" ADS N-12 SLOTTED DRAIN PIPE AT WARNING TRACK W/ CLEAN OUT TEE LATERAL TO SLOPE TO PERIMETER COLLECTOR PIPE.

GENERAL NOTES:

- PLAYING FIELD CONTRACTOR TO VERIFY INVERT ELEVATION OUTFALL MANHOLE PRIOR TO CONSTRUCTION. REPORT ANY INVERT DISCREPANCIES BETWEEN THE CIVIL ENGINEERING PLANS TO THE PLAYING FIELD ENGINEER OF RECORD.
- INSTALL 12"-18" (ADS-N-12 SMOOTH WALL INTERIOR) SLOTTED PERIMETER COLLECTOR PIPE.
- INSTALL 4" ROUND ADS-N-12 SLOTTED LATERAL AT 20" ON CENTER AT A SLOPE OF 0.50% FROM THE CENTERLINE HIGH POINT AT THE INVERT AS DENOTED. WATER TIGHT CONNECTIONS ARE REQUIRED AT ALL PERIMETER COLLECTORS. END CAPS SHALL BE INSTALLED AT ALL HIGH POINT LOCATIONS.
- INSTALL 24" DRAINAGE BASIN WITH WATER TIGHT SOLID RIM. SET RIM ELEVATION AND INVERTS AS DENOTED ON THE SUB-SURFACE DRAIN COLLECTION PLAN.
- ALL SHOP DRAWINGS FOR ALL THE NECESSARY MATERIALS TO CONSTRUCT THE ENTIRE SYSTEM AS DESIGNED MUST BE SUBMITTED AND APPROVED BY THE ENGINEER OF RECORD PRIOR TO ORDERING ANY MATERIALS.
- CONNECT PLAYING FIELD SUB-SURFACE DRAINAGE SYSTEM TO MASTER PLAYING FIELD LIFT STATION. REFER TO MASTER LIFT STATION PLANS FOR CONTINUATION.
- CONTRACTOR SHALL CONNECT FIELD GOAL PIT DRAINAGE TO PERIMETER COLLECTOR.

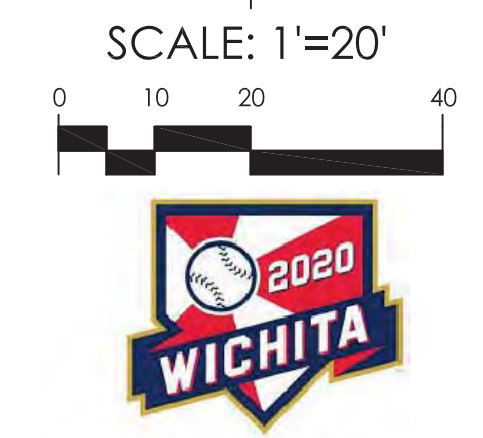
SUBDRAINAGE NOTES:

- ALL SUBDRAINAGE PIPING TO BE SLOPED AT 0.50% MIN. OR AS NOTED.
- SUBDRAINAGE PIPE TRENCHES TO BE 2X PIPE DIAMETER IN WIDTH OR AS PER DETAILS
- LATERAL PIPING TO BE SPACED 20' FEET ON CENTER OR AS DENOTED.
- CONTRACTOR TO PROVIDE ALL SUBMITTALS OF ALL PRODUCTS USED AND SHOP DRAWINGS OF ALL PIPING AND CONNECTIONS.
- CONTRACTOR TO SUBMIT SIGNED AND SEALED SURVEY OF THE ENTIRE SUB-SURFACE DRAINAGE COLLECTION SYSTEM PRIOR TO COMPLETING THE SUB-DRAINAGE SYSTEM BACKFILLING OPERATIONS OF TRENCHES. ALL HARD CONNECTIONS MADE TO THE PERIMETER COLLECTOR PIPING MUST BE INSPECTED BY THE ENGINEER OF RECORD.
- ALL LATERALS SHALL HAVE HARD CONNECTIONS TO PERIMETER COLLECTOR.
- REFER TO ARCH. PLANS FOR LOCATIONS OF AREA DRAINS OUTSIDE THE PERIMETER OF THE PLAYING FIELD.
- FILTER FABRIC TO BE PLACED ON TOP OF GRAVEL MATERIAL BELOW PITCHING MOUNDS LOCATED IN BULLPEN AREAS.

PLAYING FIELD - PEAK FLOW ANALYSIS

AREA (AC.) = 3.24
ToC (Min.) = 15

Design Storm	Runoff Coefficient (C)	Intensity in/Hr	Q (CSF)	Q (GPM)	PIPE SIZE
10 - Year	0.25	4.81 3.9	3.9	1750	15"
25 - Year	0.25	5.63 4.6	4.6	2064	15"
50 - Year	0.25	6.24 5.0	5.0	2244	18"
100 - Year	0.25	6.83 5.5	5.5	2468	18"



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WICHITA, KANSAS - MULTI-SPORT STADIUM
Wichita, Kansas

Project Package:
CONSTRUCTION DOCUMENTS

Date: SEPTEMBER 13, 2019

Designed by: WJM Drawn by: WJM, JR.
Project No.: 619004-01 Checked by: RD

Sheet Title:

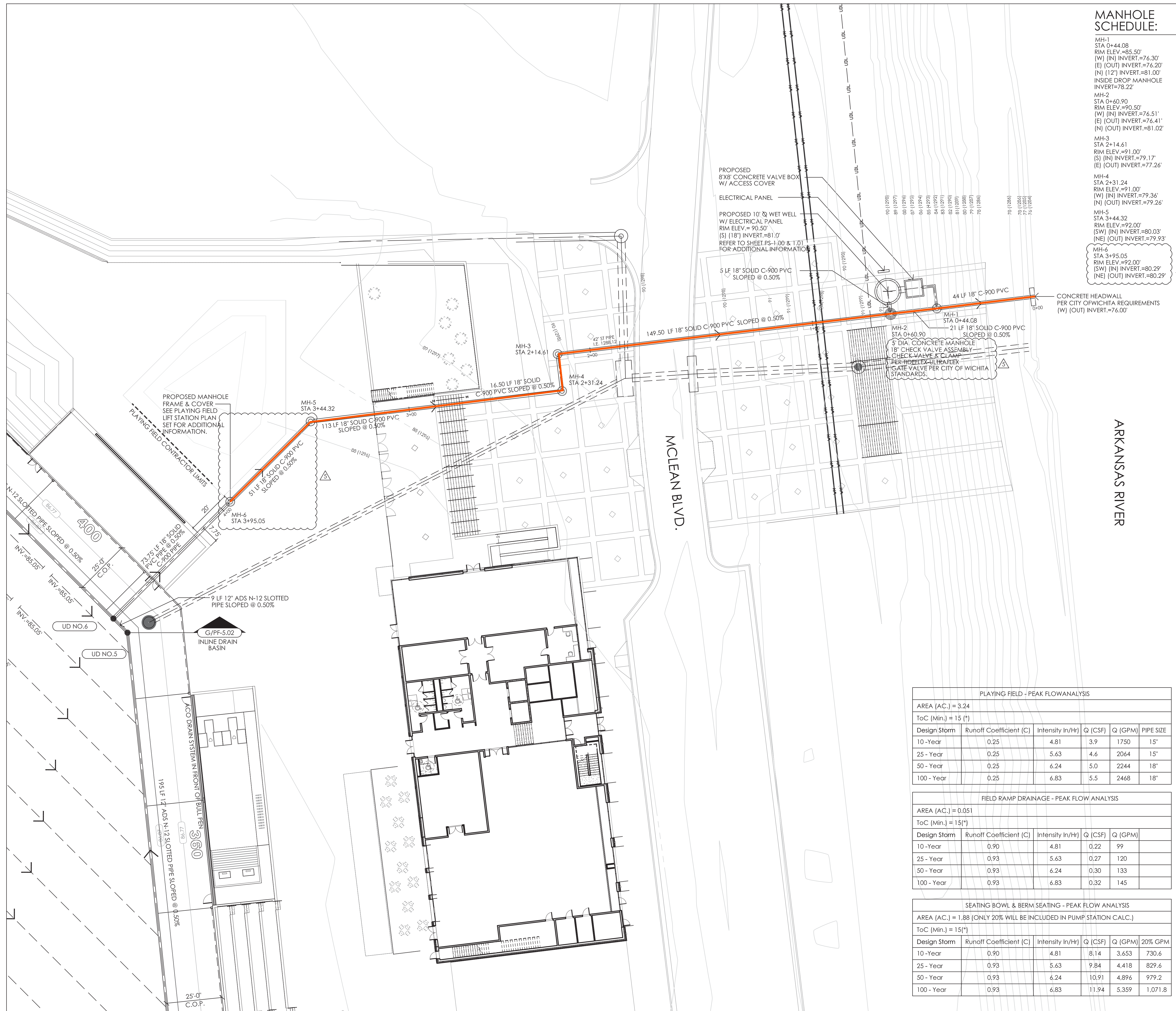
PLAYING FIELD SUBDRAINAGE PLAN

REVISIONS

No.	Date	Comment
5	9/12/19	STORM SEWER OUTFALL SYSTEM
6	9/13/19	baselines/Bullpens/Synthetic Turf

Sheet No.: **PF-3.01**

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MANHOLE SCHEDULE:

- MH-1
STA 0+44.08
RIM ELEV.=85.50'
(W) (IN) INVERT.=76.30'
(E) (OUT) INVERT.=76.20'
(N) (12") INVERT.=81.00'
INSIDE DROP MANHOLE
INVERT.=78.22'
- MH-2
STA 0+60.90
RIM ELEV.=90.50'
(W) (IN) INVERT.=76.51'
(E) (OUT) INVERT.=76.41'
(N) (OUT) INVERT.=81.02'
- MH-3
STA 2+14.61
RIM ELEV.=91.00'
(S) (IN) INVERT.=79.17'
(E) (OUT) INVERT.=77.26'
- MH-4
STA 2+31.24
RIM ELEV.=91.00'
(W) (IN) INVERT.=79.36'
(N) (OUT) INVERT.=79.26'
- MH-5
STA 3+44.32
RIM ELEV.=92.00'
(SW) (IN) INVERT.=80.03'
(NE) (OUT) INVERT.=79.93'
- MH-6
STA 3+95.05
RIM ELEV.=92.00'
(SW) (IN) INVERT.=80.29'
(NE) (OUT) INVERT.=80.29'

SUBDRAINAGE NOTES:

1. WET WELL ELEVATION TO BE NO LESS THAN THE 100 YEAR STORM EVENT ELEVATION.
2. ELECTRICAL PANEL BOTTOM ELEVATION SHALL BE 36" INCHES HIGHER THAN THE 100 YEAR EVENT.
3. VALVE BOX TO DRAIN INTO WETWELL REFER TO LIFT STATION DETAIL SHEET.
4. ALL MANHOLES TO BE CONCRETE WITH MANHOLE FRAME AND COVER ASSEMBLY. PER LOCAL UTILITY COMPANY SPECIFICATIONS.
5. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIALS.
6. ALL MANHOLE FRAME & COVERS SHALL BE FIELD ADJUSTED BASED ON SURROUNDING FINISHED GRADES. REFER TO CIVIL ENGINEERING PAVING & GRADING PLANS FOR SURROUNDING F.G.'S
7. ELEVATION 1308' =100' ASSUMED ELEVATION.

LOCAL UTILITY NOTE:
 1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO ORDERING ANY MATERIALS.
 2. MANHOLE RIM ELEVATIONS SUBJECT TO CHANGE BASED ON NEW PLAZA ARCHITECTURAL PLANS.
 3. ALL PRODUCTS MUST BE IN ACCORDANCE WITH THE LOCAL UTILITY AND STORM SEWER SPECIFICATIONS.



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Ravi Devaguptapu, P.E.
 P.E. No. 22820
 State of Kansas

SJCF
 Schaefer Johnson Cox Frey Architecture
 257 N Broadway
 Wichita, Kansas 67202

DLR Group
 7290 West 133rd Street
 Overland Park, Kansas 66213-4748
 Tel: +1.913.897.7811

WICHITA, KANSAS - MULTI-SPORT STADIUM
 Wichita, Kansas

Project Package:
CONSTRUCTION DOCUMENTS

Date:
 JULY 12, 2019

Designed by: WJM Drawn by: WJM, JR.

Project No.: 619004-01 Checked by: RD

Sheet Title:

**PLAYING FIELD
 SUBDRAINAGE
 OUTFALL SYSTEM
 PLAN**

REVISIONS

No.	Date	Comment
1	7/19/19	PIPE OUTFALL
2	8/19/19	42" STORM PIPE CONFLICT
3	8/23/19	MANHOLE 1 & 2 DATA
4	9/4/19	CITY OF WICHITA COMMENTS
5	9/12/19	STORM SEWER OUTFALL SYSTEM

Sheet No.:

PF-3.02

PLAYING FIELD - PEAK FLOW ANALYSIS

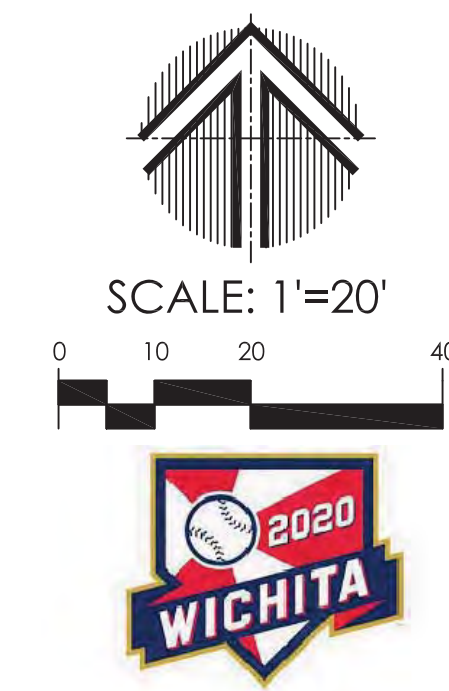
AREA (AC.) = 3.24					
ToC (Min.) = 15 (*)					
Design Storm	Runoff Coefficient (C)	Intensity In/Hr	Q (CSF)	Q (GPM)	PIPE SIZE
10 - Year	0.25	4.81	3.9	1750	15"
25 - Year	0.25	5.63	4.6	2064	15"
50 - Year	0.25	6.24	5.0	2244	18"
100 - Year	0.25	6.83	5.5	2468	18"

FIELD RAMP DRAINAGE - PEAK FLOW ANALYSIS

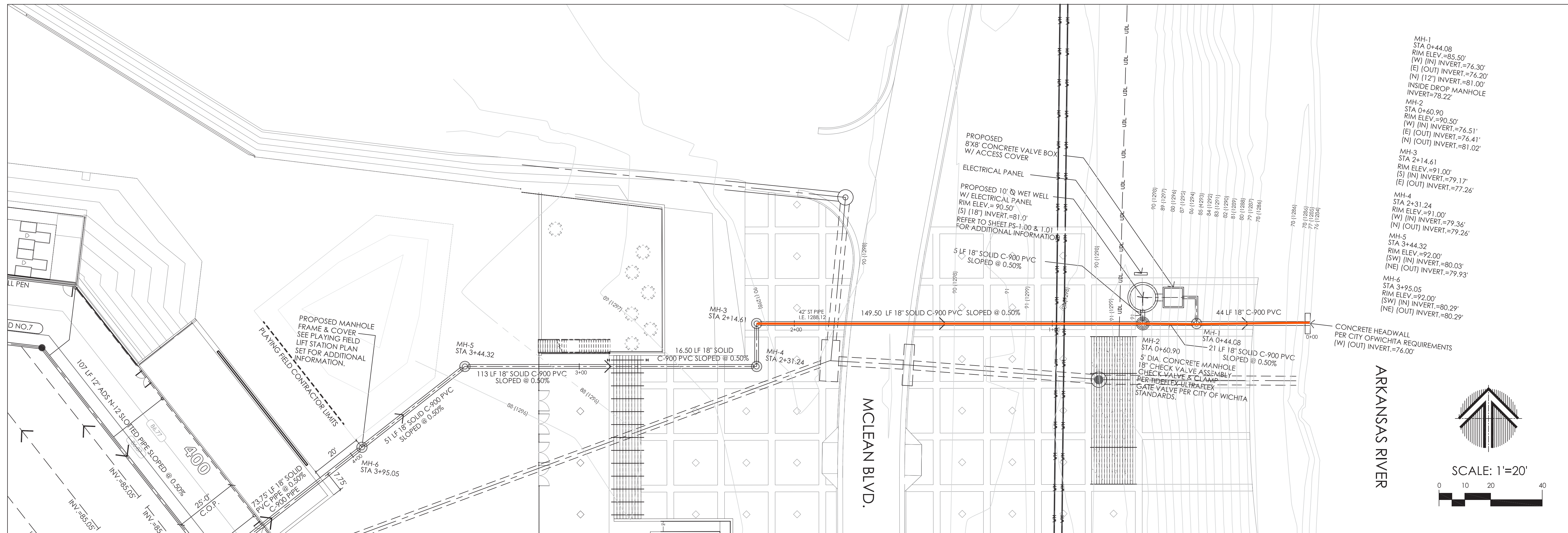
AREA (AC.) = 0.051				
ToC (Min.) = 15 (*)				
Design Storm	Runoff Coefficient (C)	Intensity In/Hr	Q (CSF)	Q (GPM)
10 - Year	0.90	4.81	0.22	99
25 - Year	0.93	5.63	0.27	120
50 - Year	0.93	6.24	0.30	133
100 - Year	0.93	6.83	0.32	145

SEATING BOWL & BERM SEATING - PEAK FLOW ANALYSIS

AREA (AC.) = 1.88 (ONLY 20% WILL BE INCLUDED IN PUMP STATION CALC.)					
ToC (Min.) = 15 (*)					
Design Storm	Runoff Coefficient (C)	Intensity In/Hr	Q (CSF)	Q (GPM)	20% GPM
10 - Year	0.90	4.81	8.14	3,653	730.6
25 - Year	0.93	5.63	9.84	4,418	829.6
50 - Year	0.93	6.24	10.91	4,896	979.2
100 - Year	0.93	6.83	11.94	5,359	1,071.8



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MH-1
STA 0+44.08
RIM ELEV.=85.50'
(W) (IN) INVERT.=76.30'
(E) (OUT) INVERT.=76.20'
(N) (12) INVERT.=81.00'
INSIDE DROP MANHOLE
INVERT.=78.22'

MH-2
STA 0+60.90
RIM ELEV.=90.50'
(W) (IN) INVERT.=76.51'
(E) (OUT) INVERT.=76.41'
(N) (OUT) INVERT.=81.02'

MH-3
STA 2+14.61
RIM ELEV.=91.00'
(S) (IN) INVERT.=79.17'
(E) (OUT) INVERT.=77.26'

MH-4
STA 2+31.24
RIM ELEV.=91.00'
(W) (IN) INVERT.=79.36'
(N) (OUT) INVERT.=79.26'

MH-5
STA 3+44.32
RIM ELEV.=92.00'
(SW) (IN) INVERT.=80.03'
(NE) (OUT) INVERT.=79.93'

MH-6
STA 3+95.05
RIM ELEV.=92.00'
(SW) (IN) INVERT.=80.29'
(NE) (OUT) INVERT.=80.29'

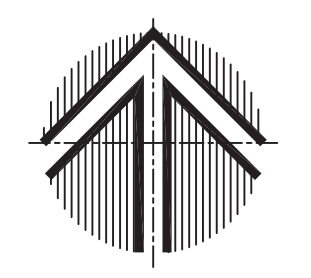
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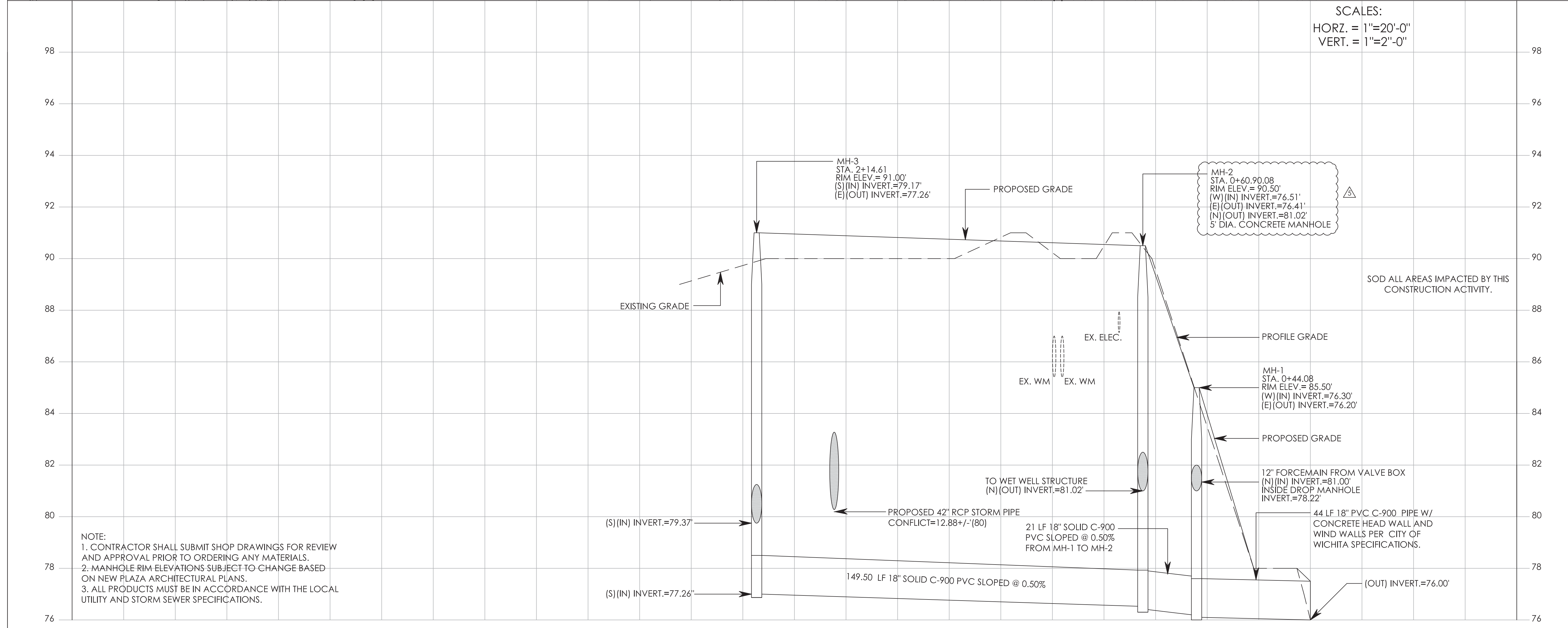
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Wichita, Kansas 67202

DLR Group
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Overland Park, Kansas 66213-4748
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SCALE: 1"=20'
0 10 20 40

SCALES:
HORIZ. = 1"=20'-0"
VERT. = 1"=2'-0"



NOTE:
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2. MANHOLE RIM ELEVATIONS SUBJECT TO CHANGE BASED ON NEW PLAZA ARCHITECTURAL PLANS.
3. ALL PRODUCTS MUST BE IN ACCORDANCE WITH THE LOCAL UTILITY AND STORM SEWER SPECIFICATIONS.

Project Package:
CONSTRUCTION DOCUMENTS

Date:
JULY 12, 2019

Designed by.: WJM Drawn by: WJM, JR.
Project No.: 619004-01 Checked by: RD

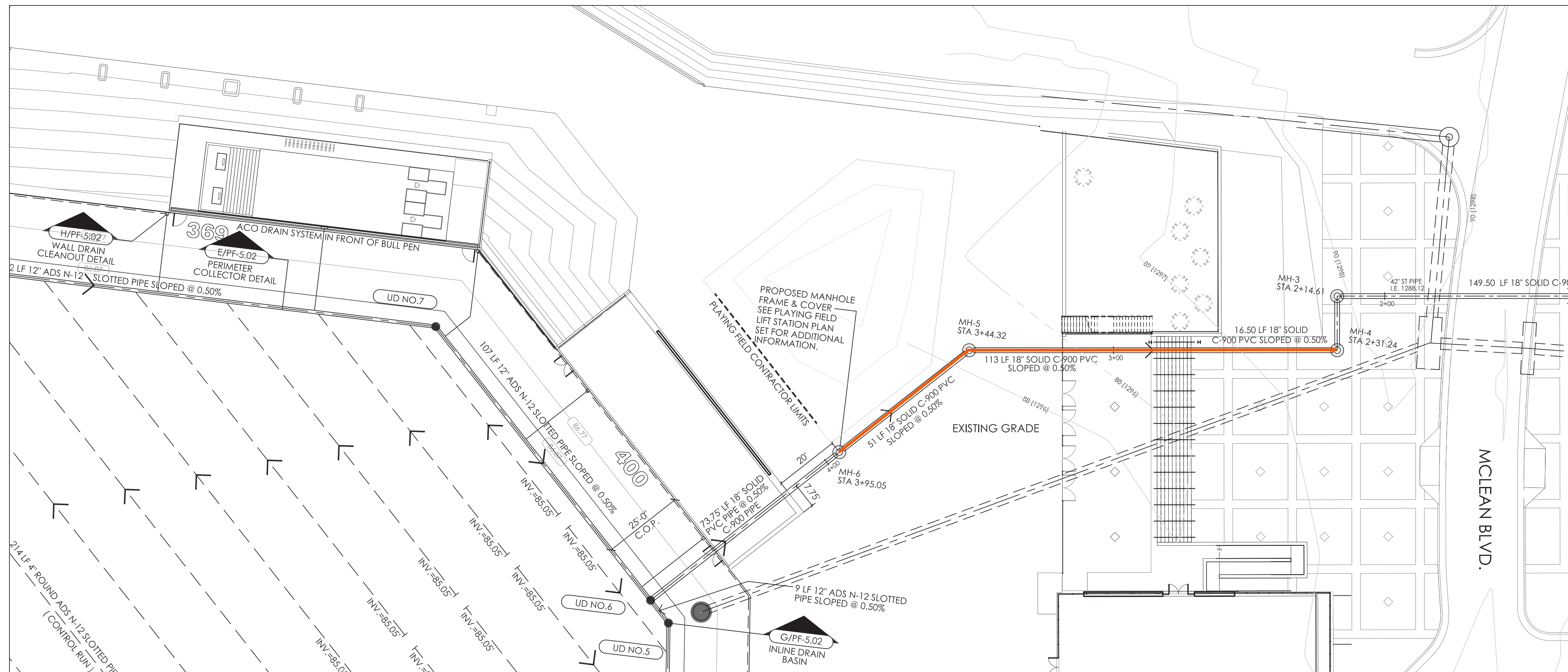
Sheet Title:
**PLAYING FIELD
SUBDRAINAGE
OUTFALL PLAN &
PROFILE SHEET**

REVISIONS		
No.	Date	Comment
1	7/19/19	OUTFALL PIPE
2	8/19/19	42" STORM PIPE CONFLICT
3	8/23/19	MANHOLE 1 & 2 DATA/PROFILE
4	9/4/19	PER CITY OF WICHITA COMMENTS
5	9/12/19	STORM SEWER OUTFALL SYSTEM

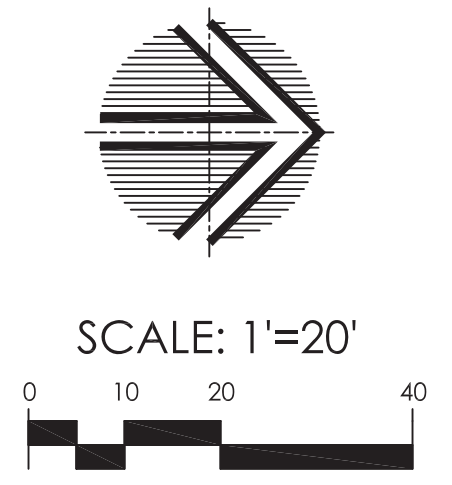
Sheet No.:
PF-3.03

WICHITA, KANSAS - MULTI-SPORT STADIUM
Wichita, Kansas

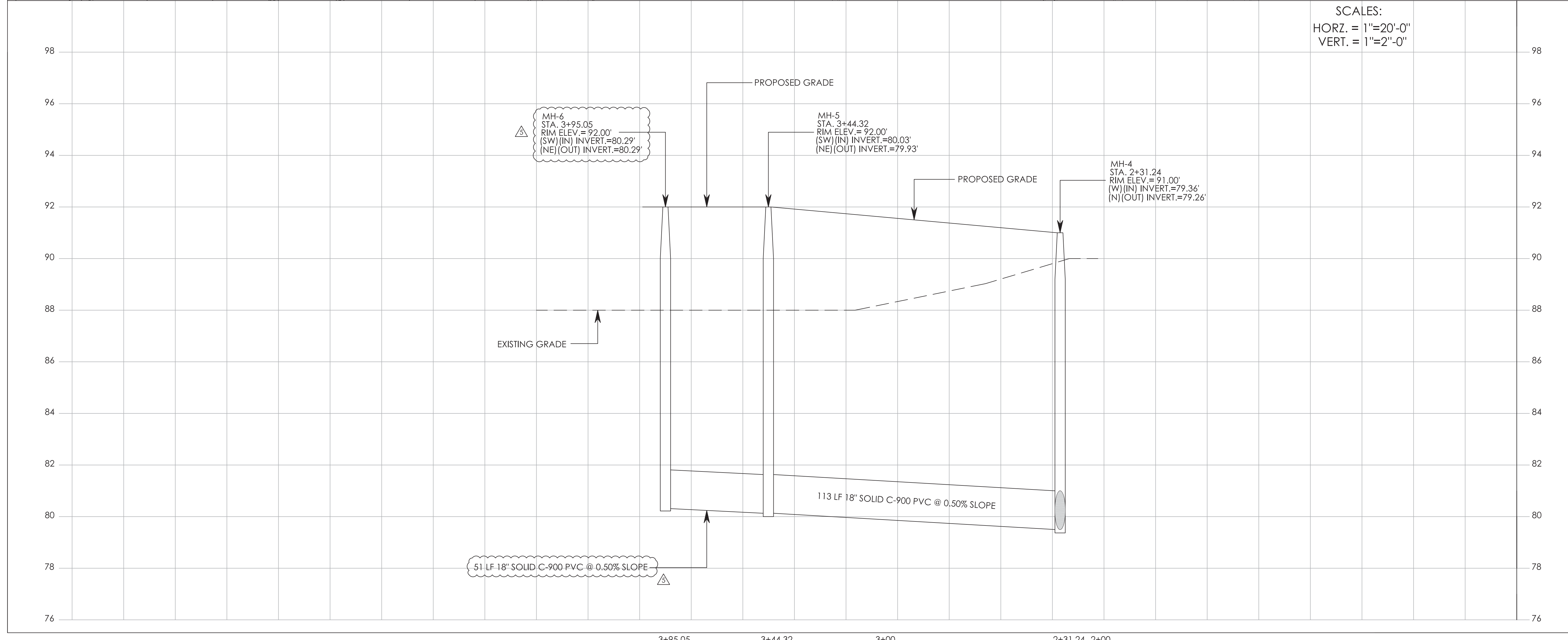
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SCALES:
 HORZ. = 1"=20'-0"
 VERT. = 1"=2'-0"



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WICHITA, KANSAS - MULTI-SPORT STADIUM

Wichita, Kansas

Project Package: CONSTRUCTION DOCUMENTS	
Date:	JULY 12, 2019
Designed by: WJM	Drawn by: WJM, JR.
Project No.: 619004-01	Checked by: RD

Sheet Title:
**PLAYING FIELD
 SUBDRAINAGE
 OUTFALL PLAN &
 PROFILE SHEET**

REVISIONS		
No.	Date	Comment
1	7/19/19	OUTFALL PIPE
2	8/19/19	42" STORM PIPE CONFLICT
4	9/4/19	PER CITY OF WICHITA COMMENTS
5	9/12/19	STORM SEWER OUTFALL SYSTEM

Sheet No.:

PF-3.05

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NOTE: IRRIGATION LAYOUT FOR GRASS SEATING BERM IS SCHEMATIC IN DESIGN. THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE DESIGN LAYOUT FOR REVIEW AND APPROVAL DURING THE SHOP DRAWING REVIEW PROCESS THAT PROVIDES HEAD TO HEAD COVERAGE.

IRRIGATION LEGEND:

LATERAL LINE SIZING CHART	
GPM	PIPE SIZE
0-15	1"
16-30	1 1/2"
31-50	2"
51-75	2 1/2"
76-100	3"

VALVE SCHEDULE						
VALVE#	MODEL	TYPE	SIZE	GPM	OPERATING PRESSURE	PIPE SIZE TO FIRST HEAD
	QUICK COUP.		2"			2"
1	HUNTER-ICV-151G-AS-ADJ	I-20-04-SS	1 1/2"	31.5	60 PSI	2"
2	HUNTER-ICV-201G-AS-ADJ	I-40-04-SS	2"	62.8	60 PSI	2 1/2"
3	HUNTER-ICV-201G-AS-ADJ	I-40-04-SS	2"	78.5	60 PSI	3"
4	HUNTER-ICV-201G-AS-ADJ	I-40-04-SS	2"	94.2	60 PSI	3"
5	HUNTER-ICV-201G-AS-ADJ	I-40-04-SS-ON	2"	91.2	60 PSI	3"
6	HUNTER-ICV-201G-AS-ADJ	I-40-04-SS-ON	2"	91.2	60 PSI	3"
7	HUNTER-ICV-201G-AS-ADJ	I-40-04-SS	2"	78.5	60 PSI	3"
8	HUNTER-ICV-201G-AS-ADJ	I-40-04-SS-ON	2"	91.2	60 PSI	3"
9	HUNTER-ICV-201G-AS-ADJ	I-40-04-SS	2"	78.5	60 PSI	3"
10	HUNTER-ICV-201G-AS-ADJ	I-40-04-SS-ON	2"	91.2	60 PSI	3"
11	HUNTER-ICV-151G-AS-ADJ	I-40-04-SS	1 1/2"	47.1	60 PSI	2"
12	HUNTER-ICV-201G-AS-ADJ	I-40-04-SS-HS	2"	81.2	50 PSI	3"
13	HUNTER-ICV-151G-AS-ADJ	I-20-04-SS-LA	1"	14.5	50 PSI	1 1/2"
14	HUNTER-ICV-151G-AS-ADJ	I-20-04-SS-LA	1 1/2"	21.5	50 PSI	1 1/2"
15	HUNTER-ICV-151G-AS-ADJ	I-20-04-SS-LA	1"	12.5	50 PSI	1 1/2"

- TURF ROTOR HEAD ADJUSTABLE ARC HUNTER I-40-04-SS
- TURF ROTOR HEAD ADJUSTABLE ARC HUNTER I-40-04-SS
- IF INFIELD SKIN ROTOR HEAD HIGH SPEED ADJUSTABLE ARC HUNTER I-40-04-SS-HS
- IF INFIELD SKIN ROTOR HEAD HIGH SPEED ADJUSTABLE ARC HUNTER I-40-04-SS-HS
- TURF ROTOR HEAD ADJUSTABLE ARC HUNTER I-40-04-SS
- TURF ROTOR HEAD DUAL OPPOSING NOZ. HUNTER I-40-04-SS-ON
- TURF ROTOR HEAD ADJUSTABLE ARC HUNTER I-20-04-SS
- TURF ROTOR HEAD ADJUSTABLE ARC HUNTER I-20-04-SS
- QUICK COUPLER HUNTER HQ-5RC
- REMOTE CONTROL VALVE HUNTER ICV-SEE CHART-AS-ADJ
- ⊘ MANUAL GATE VALVE
- ⓐ IRRIGATION CONTROLLER: HUNTER ACC2 WALL MOUNT DECODER MODULAR ICD-HP HANDHELD DECODER CONTRACTOR TO PROVIDE 120/230 VAC, 50/60 Hz. POWER TO CONTROLLER.
- 4" IRRIGATION MAINLINE
- ⓐ DUGOUT CALL BOX TO BULL PEN LOCATION 1" (GRAY) CONDUCT.
- ZONE #
- G.P.M.
- VALVE SIZE



SCALE: 1"=20'



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WICHITA, KANSAS - MULTI-SPORT STADIUM

Wichita, Kansas

Project Package:
CONSTRUCTION DOCUMENTS

Date: JULY 12, 2019

Designed by: WJM Drawn by: WJM, JR.

Project No.: 619004-01 Checked by: RD

Sheet Title:

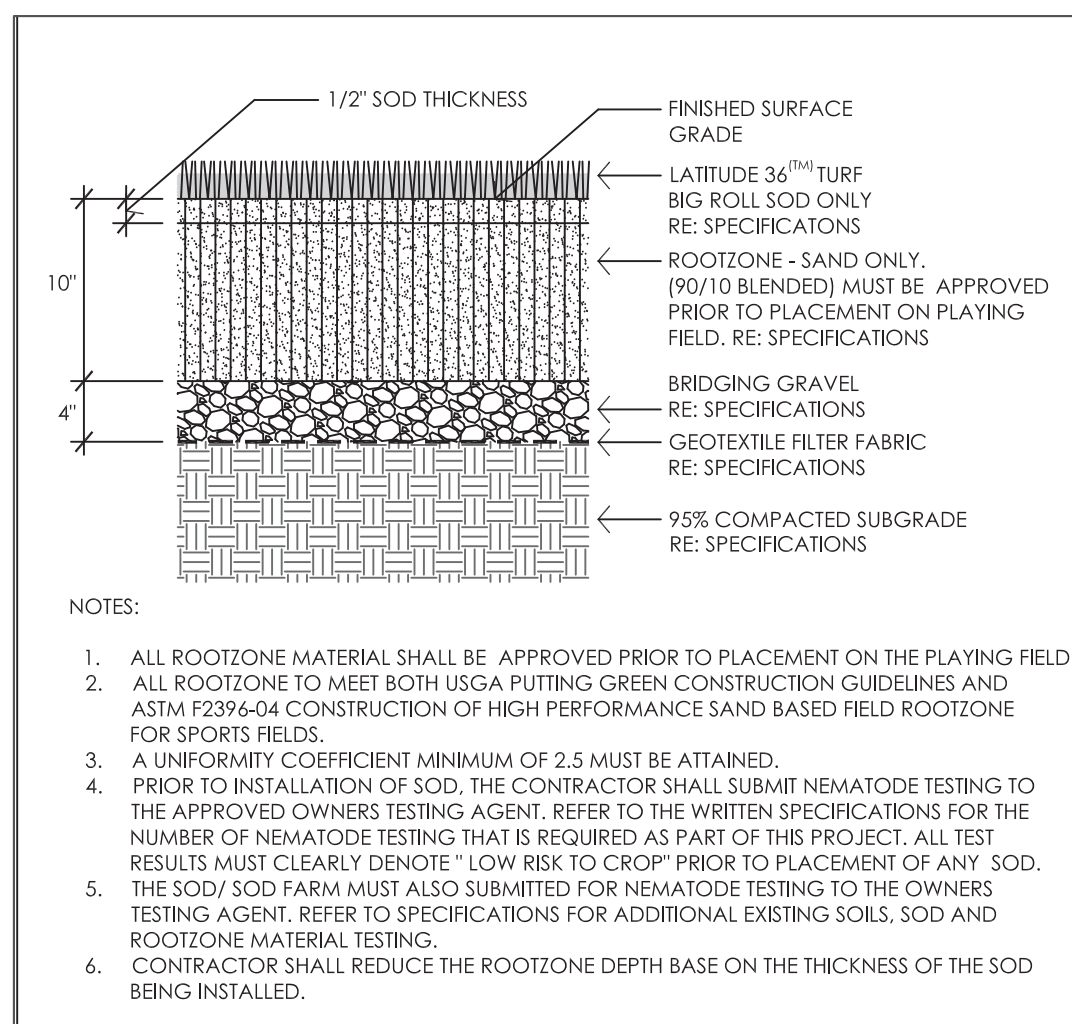
PLAYING FIELD IRRIGATION PLAN

REVISIONS

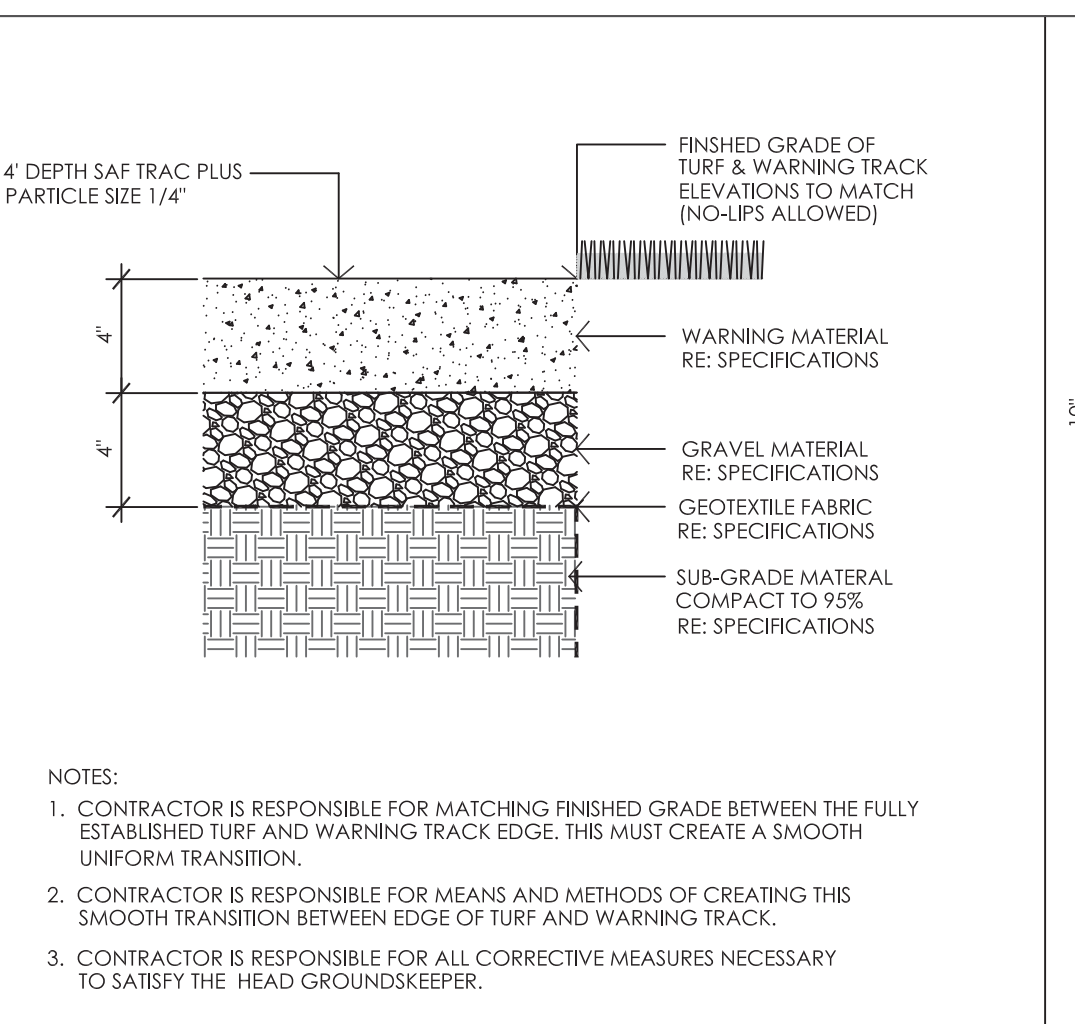
No.	Date	Comment

Sheet No.:

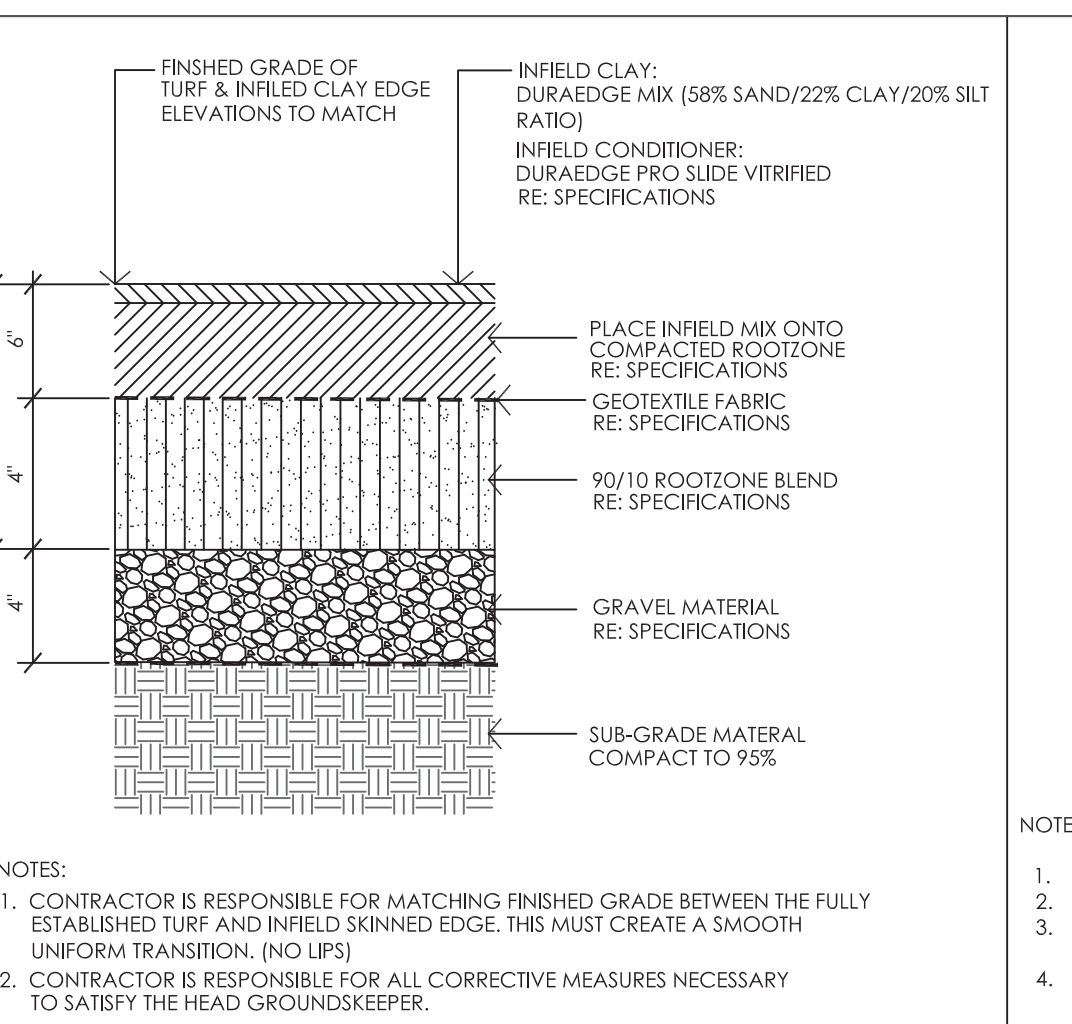
PF-4.01



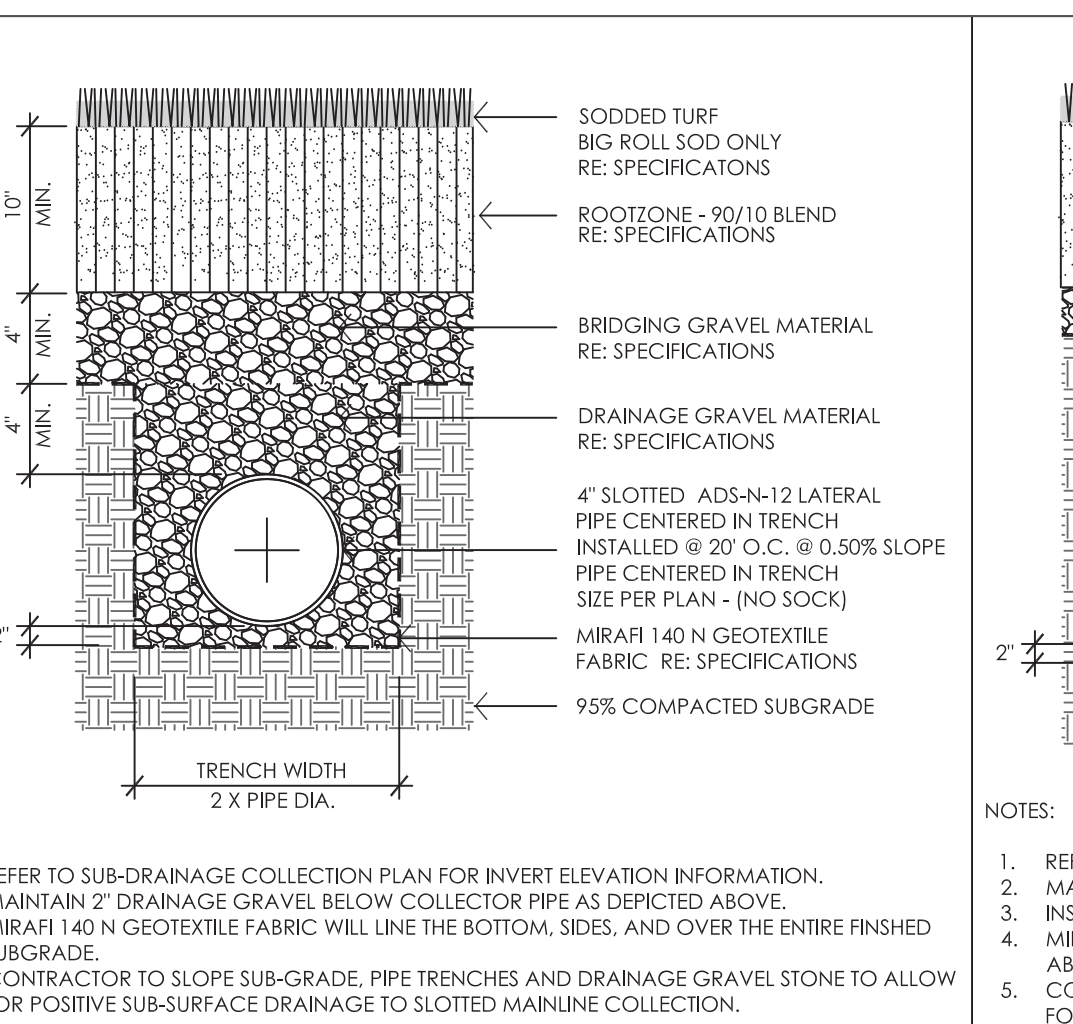
A NATURAL TURF PROFILE
NOT TO SCALE 2019



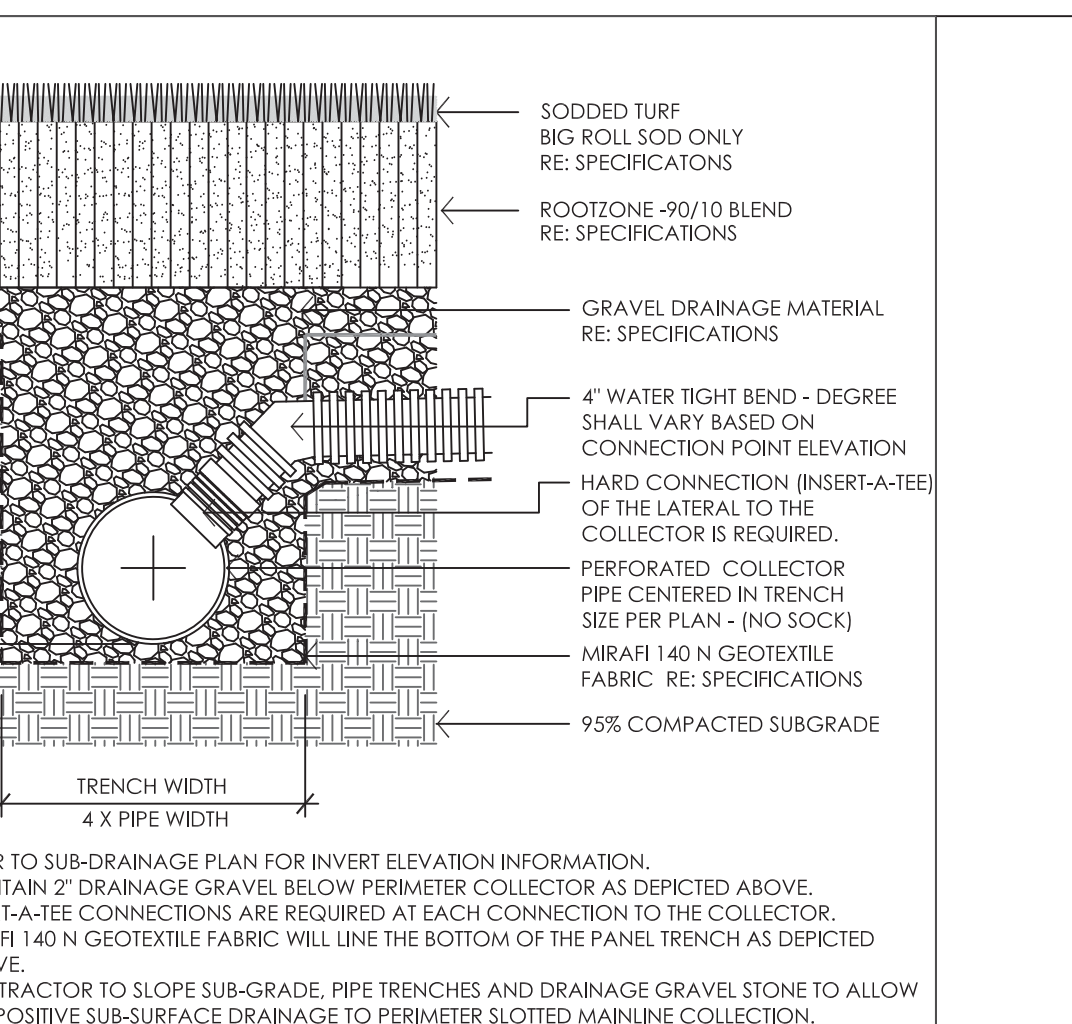
B WARNING TRACK PROFILE
NOT TO SCALE 2019



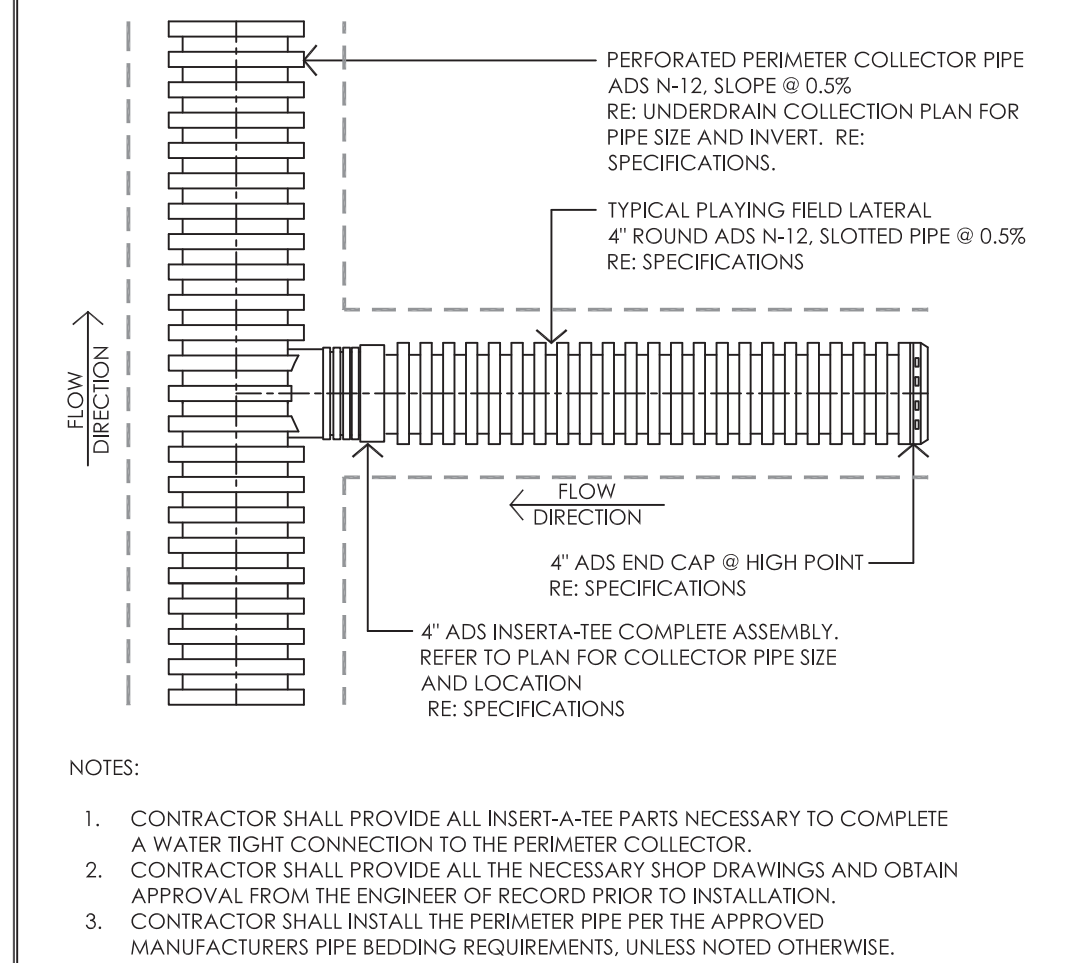
C INFELD SKIN PROFILE
NOT TO SCALE 2019



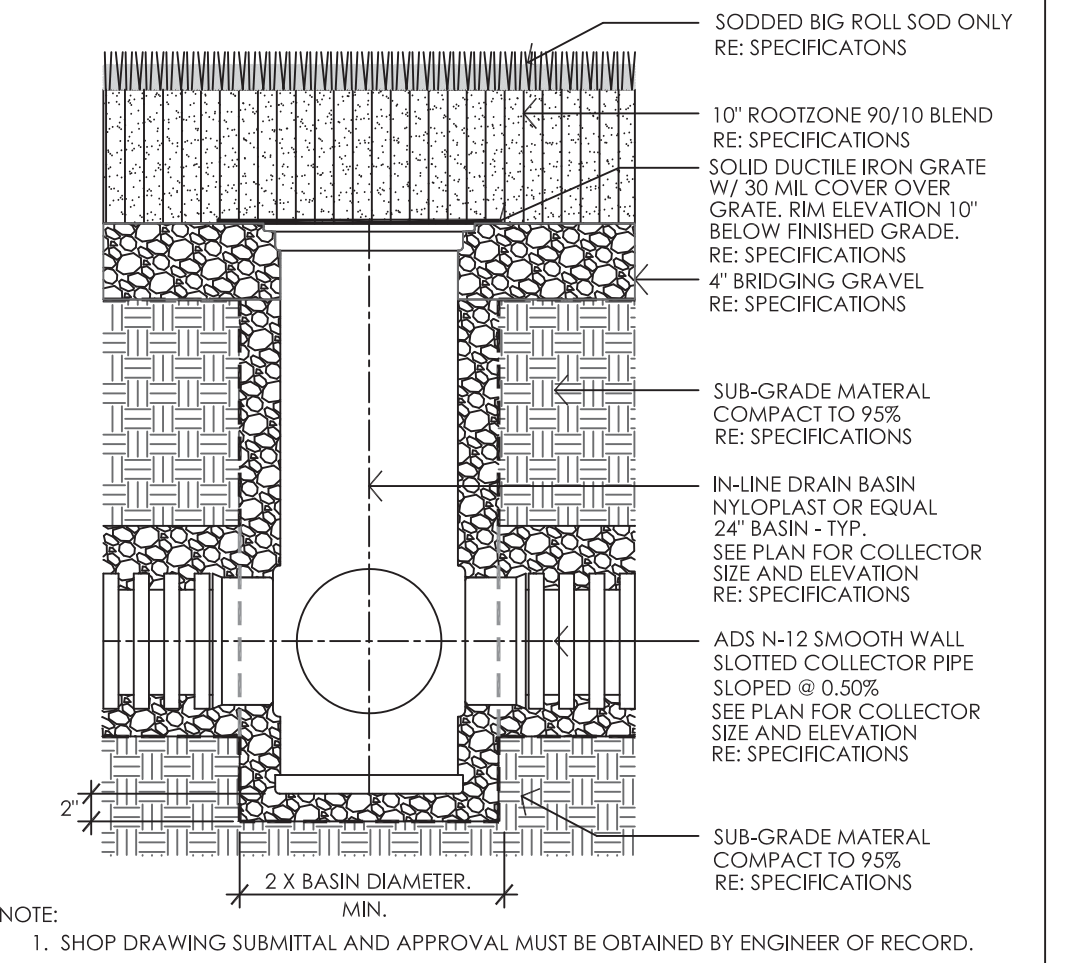
D PLAYING FIELD LATERAL DETAIL
NOT TO SCALE 2019



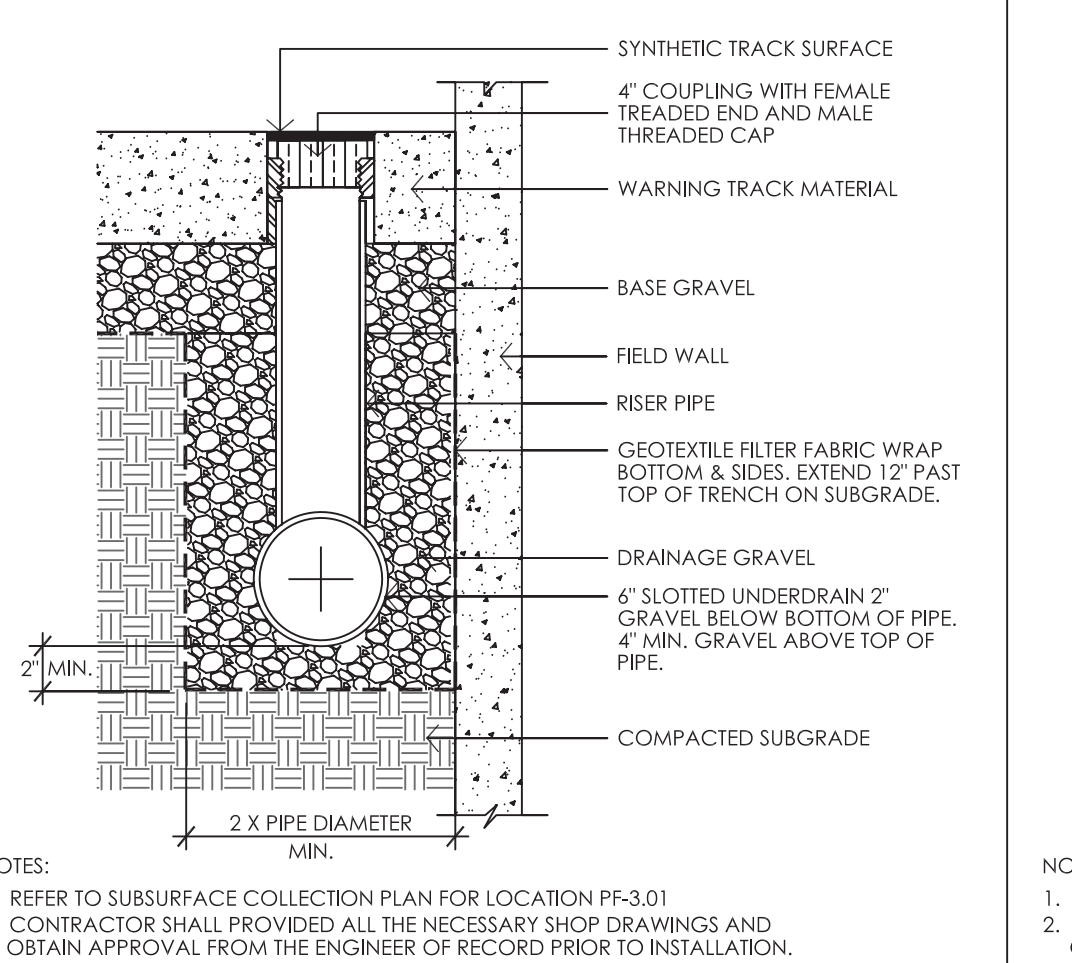
E TYPICAL PERIMETER COLLECTOR DETAIL
NOT TO SCALE 2019



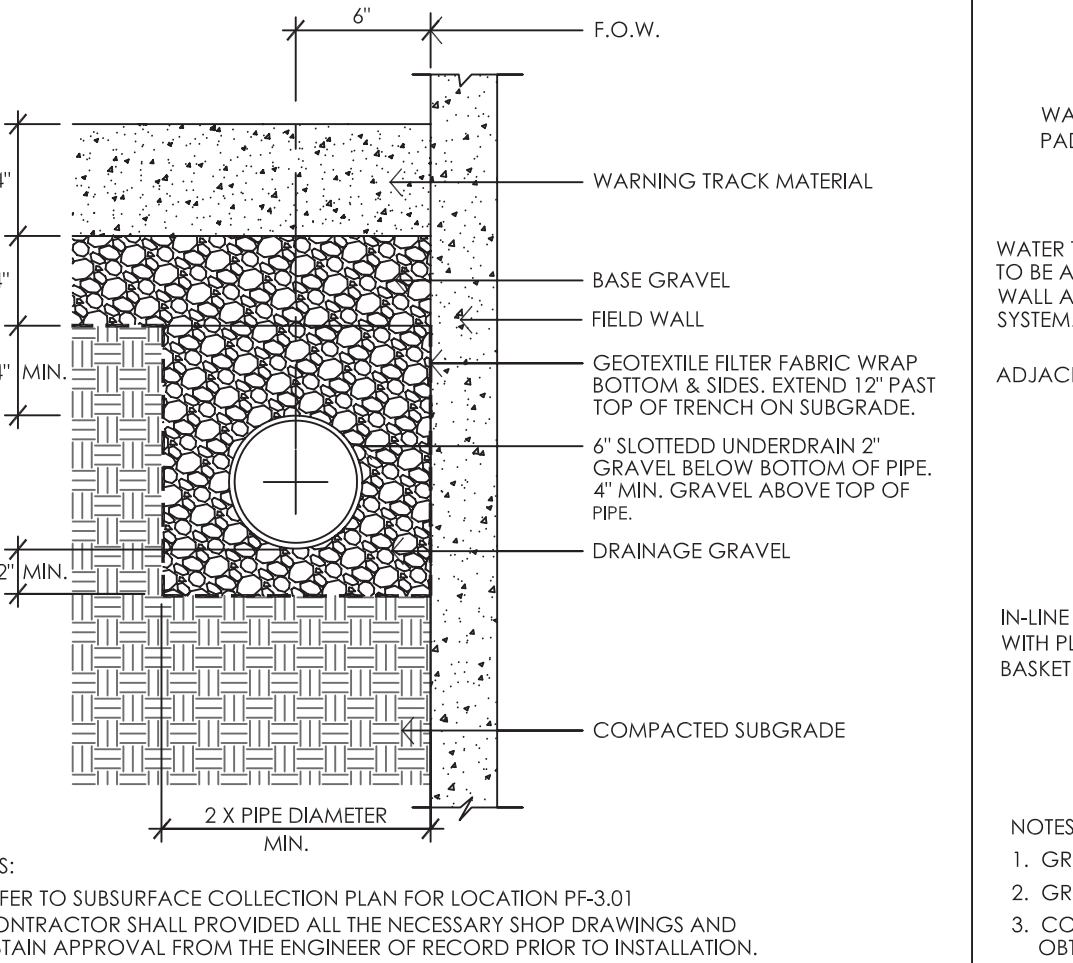
F LATERAL CONNECTION @ PMTR CLLCTR.
NOT TO SCALE 2019



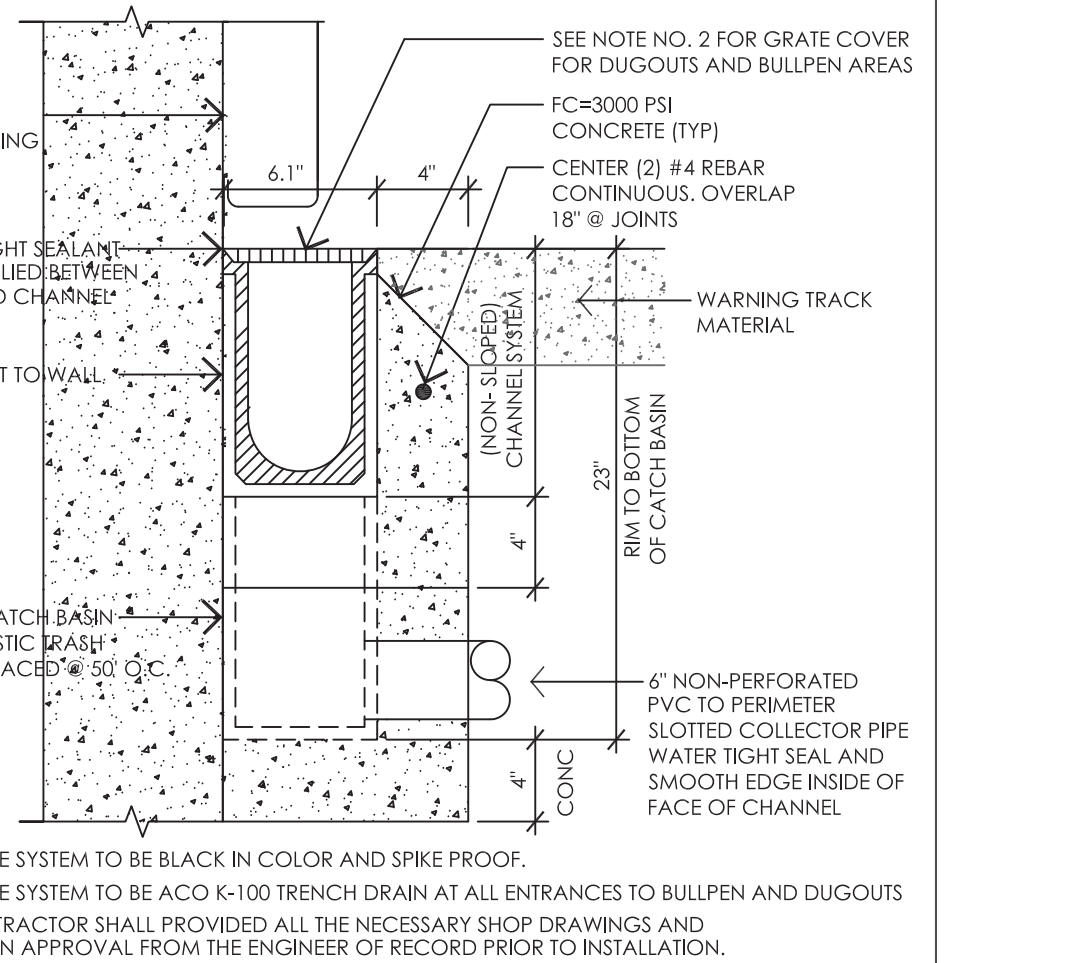
G SECTION OF INLINE DRAIN BASIN
NOT TO SCALE 2019



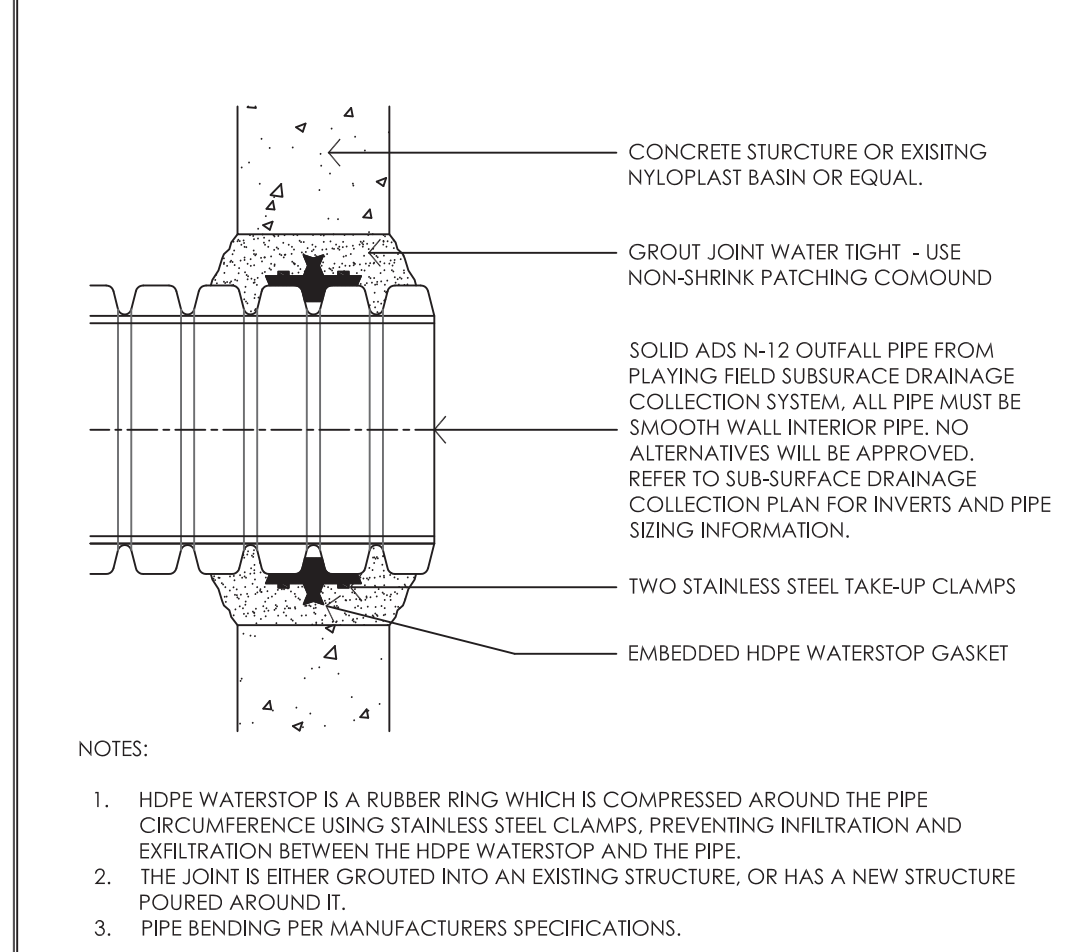
H PERIMETER WALL DRAIN CLEAN-OUT
NOT TO SCALE 2019



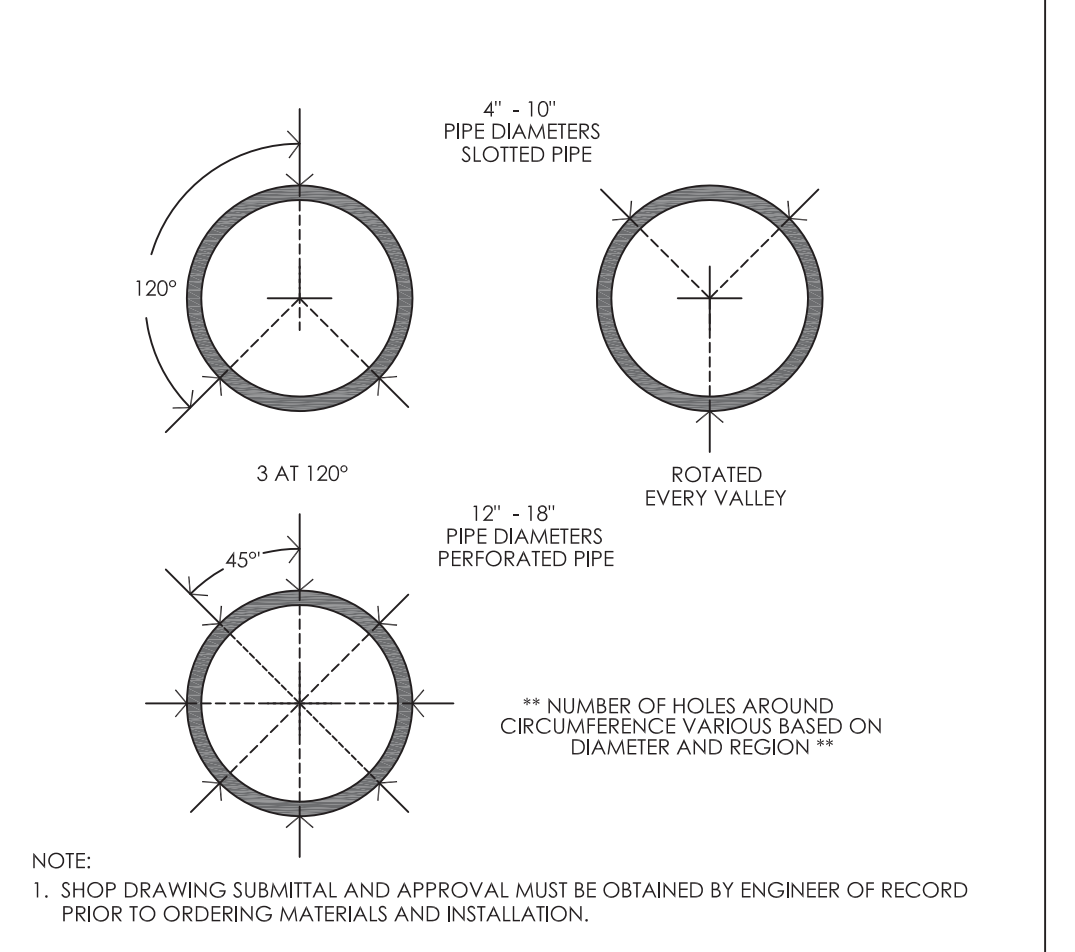
I PERIMETER WALL DRAIN
NOT TO SCALE 2019



J ACO MODEL 4000 PRE-CAST CHANNEL
NOT TO SCALE 2019



K STORMWATER CONNECTION
NOT TO SCALE 2019



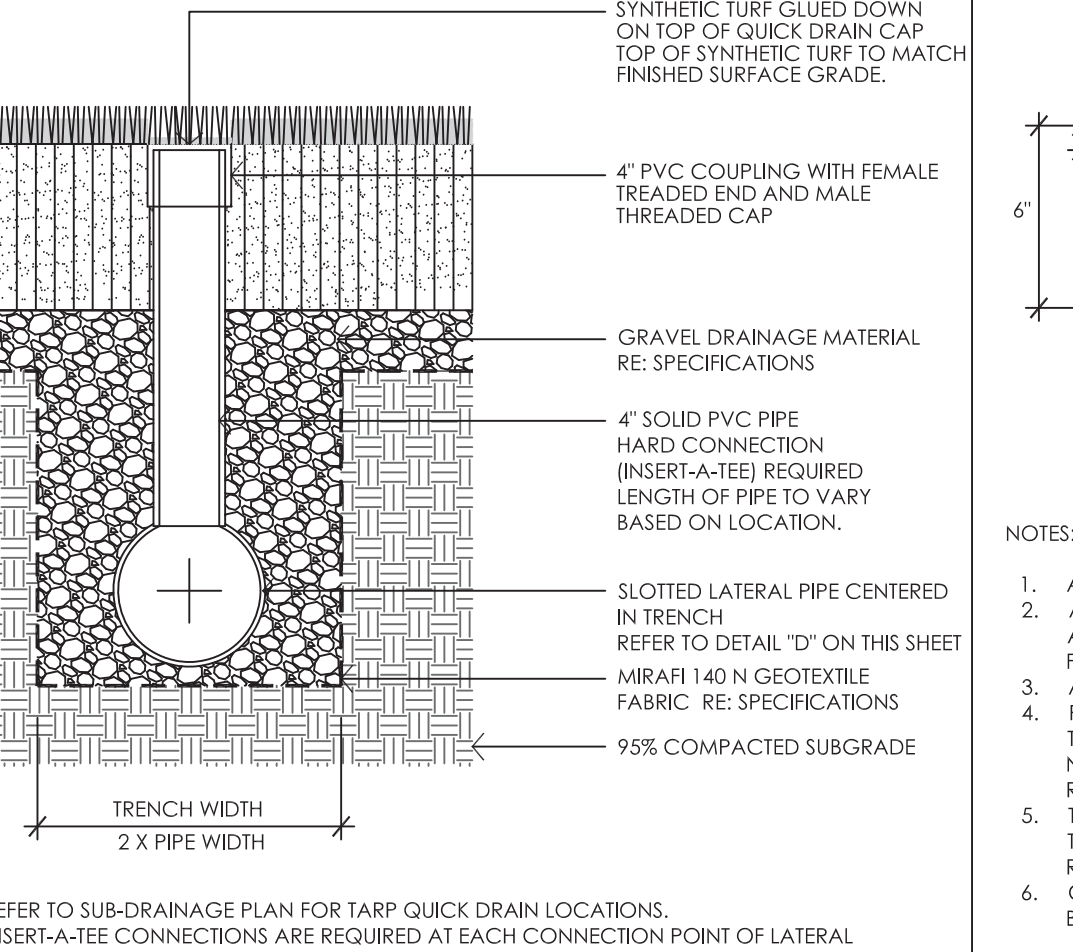
L DUAL WALL HDPE PERFORATION DETAIL
NOT TO SCALE 2019

AASHTO CLASS II PERFORATION

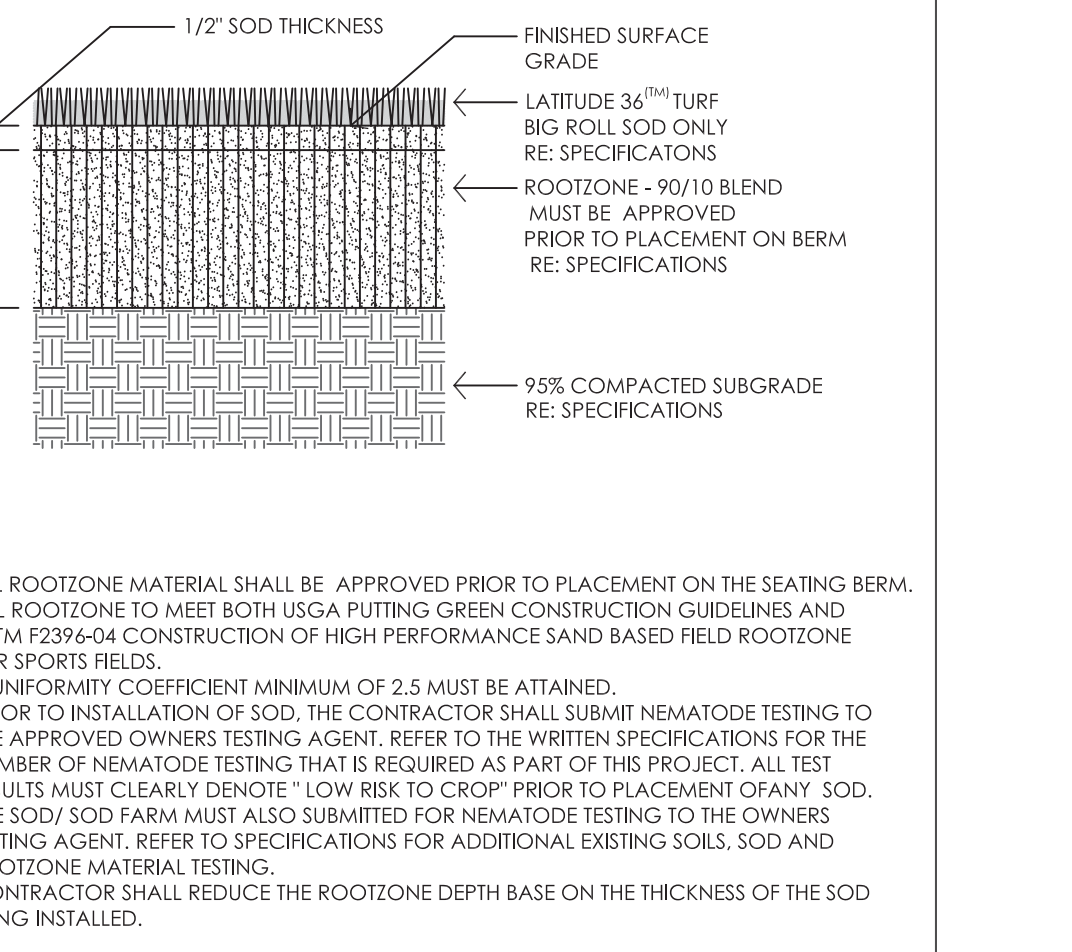
1. CLASS II PERFORATIONS SHALL BE LOCATED IN THE OUTSIDE BETWEEN THE SPECIFICATIONS ARE CORRUGATIONS, BE CIRCULAR AND/OR SLOTTED AND EVENLY SPACED AROUND THE CIRCUMFERENCE AND LENGTH OF PIPE. THE PERFORATIONS SHALL BE LOCATED IN THE OUTSIDE VALLEYS OF THE CORRUGATIONS. THE WATER INFILTRATION AREA SHALL BE NO LESS THAN 0.945 in²/ft (20 cm²/m) FOR PIPE DIAMETERS 4\"/>

Nominal I.D.	Perforation Type	Maximum Slot Length of Diameter		Maximum Slot Width		Minimum Inlet Area		
		in	mm	in	mm	in ² /ft	cm ² /m	
4	100	Slot	0.875	22	0.125	3	1.0	21
6	150	Slot	0.875	22	0.125	3	1.0	21
8	200	Slot	1.18	30	0.125	3	1.0	21
10	250	Slot	1.18	30	0.125	3	1.0	21
12	300	Circular	0.313	8	-	-	1.5	32
15	375	Circular	0.313	8	-	-	1.5	32
18	450	Circular	0.313	8	-	-	1.5	32
24	600	Circular	0.313	8	-	-	2.0	42
30	750	Circular	0.375	9.5	-	-	2.0	42
36	900	Circular	0.375	9.5	-	-	2.0	42
42	1054	Circular	0.375	9.5	-	-	2.0	42
48	1200	Circular	0.375	9.5	-	-	2.0	42
54	1350	Circular	0.375	9.5	-	-	2.0	42
60	1500	Circular	0.375	9.5	-	-	2.0	42

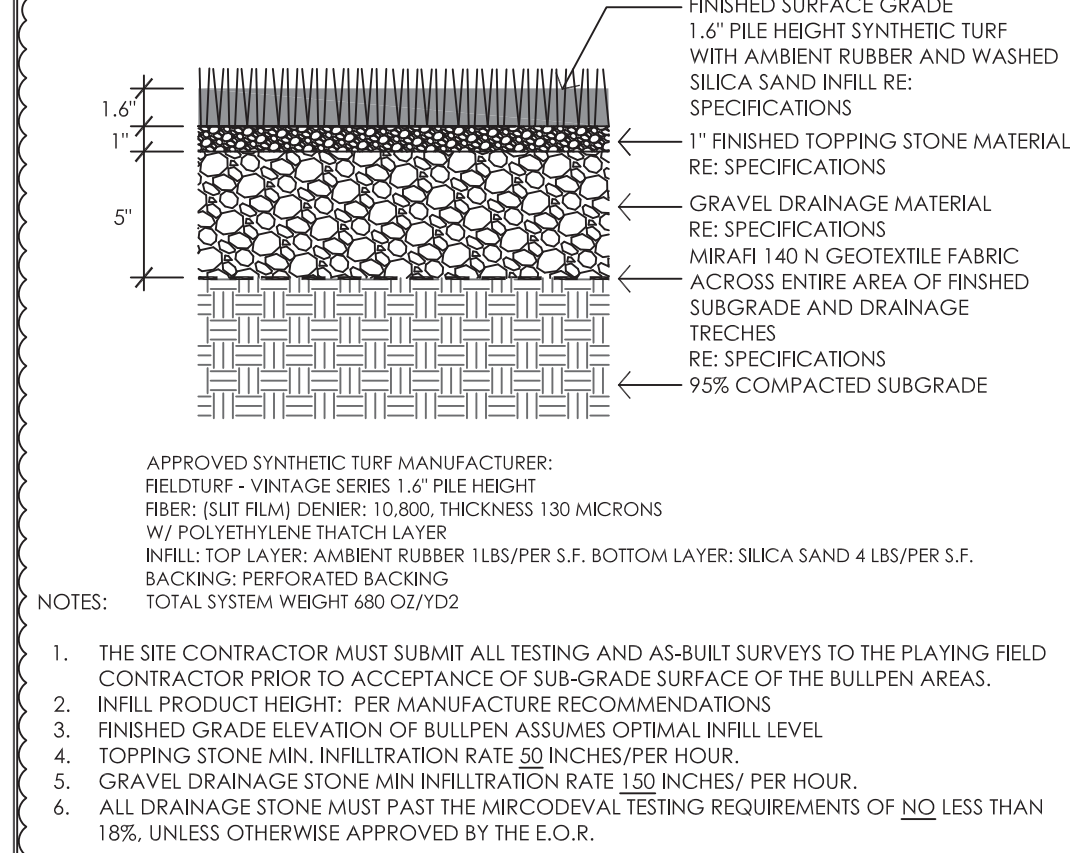
M STANDARD PERFORATION PATTERNS
NOT TO SCALE 2019



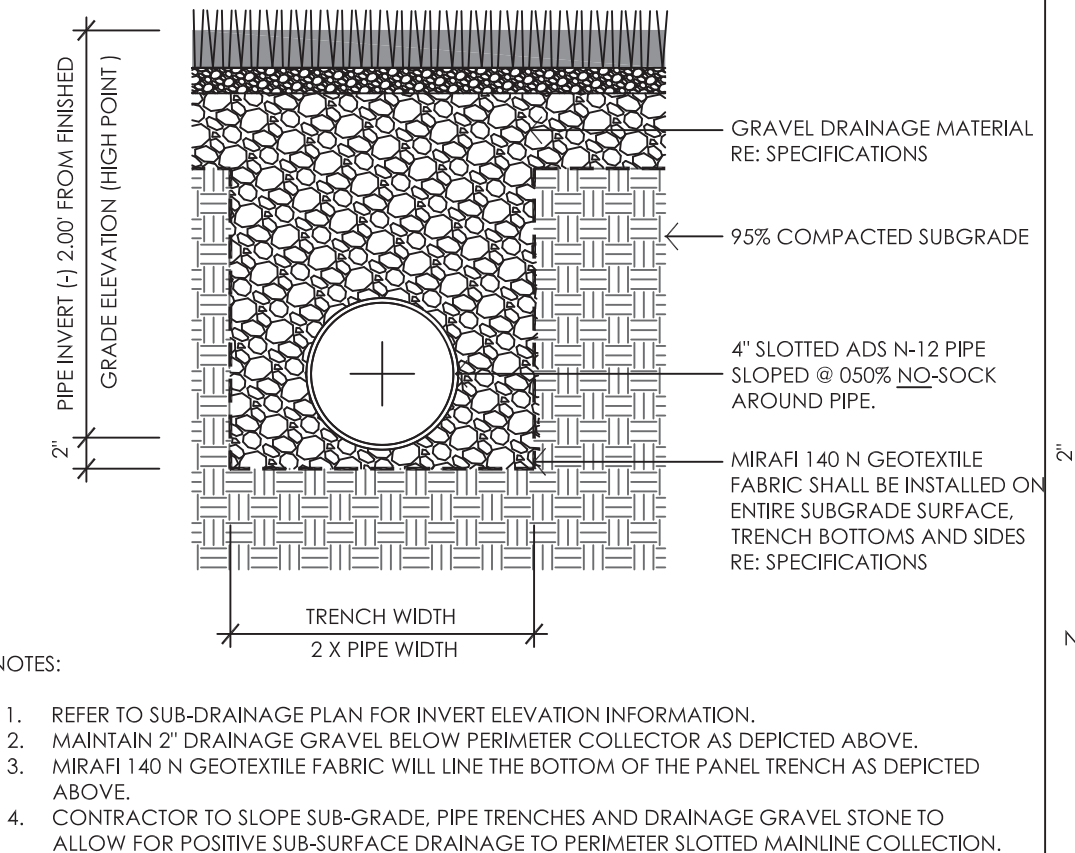
N QUICK DRAIN DETAIL (INFELD TARP)
NOT TO SCALE 2019



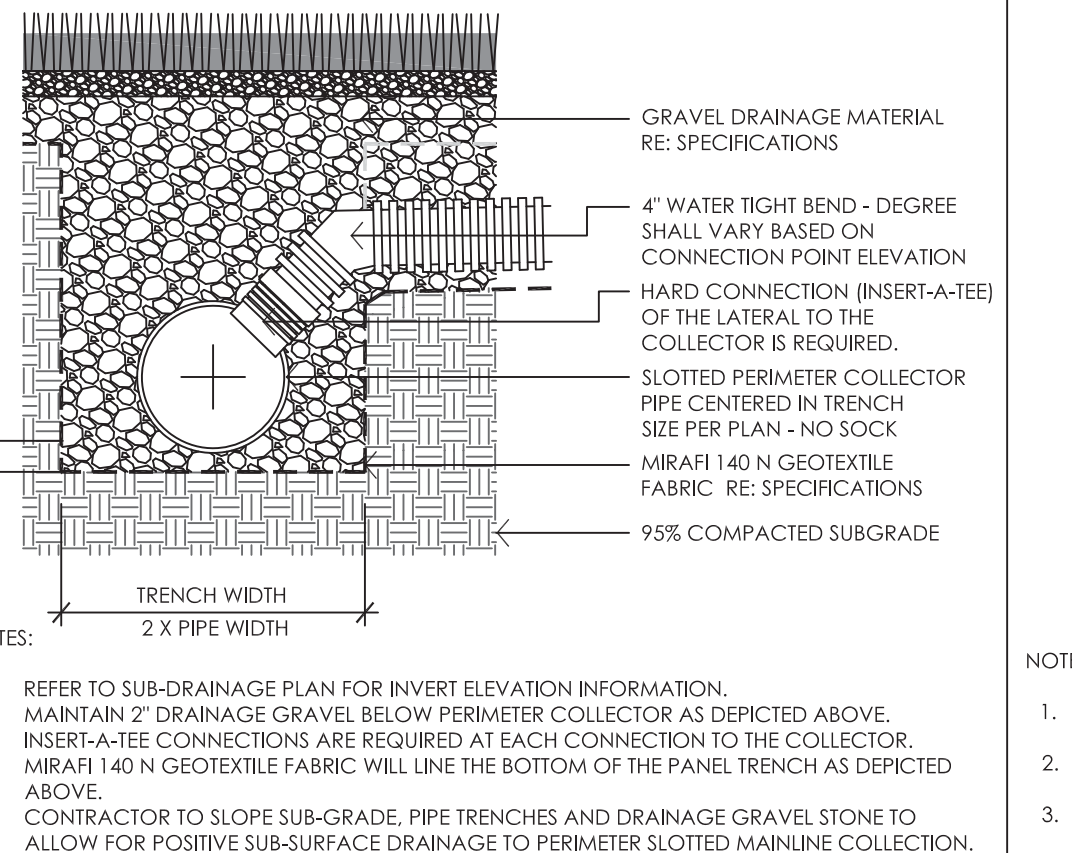
O GRASS SEATING BERM PROFILE
NOT TO SCALE 2019



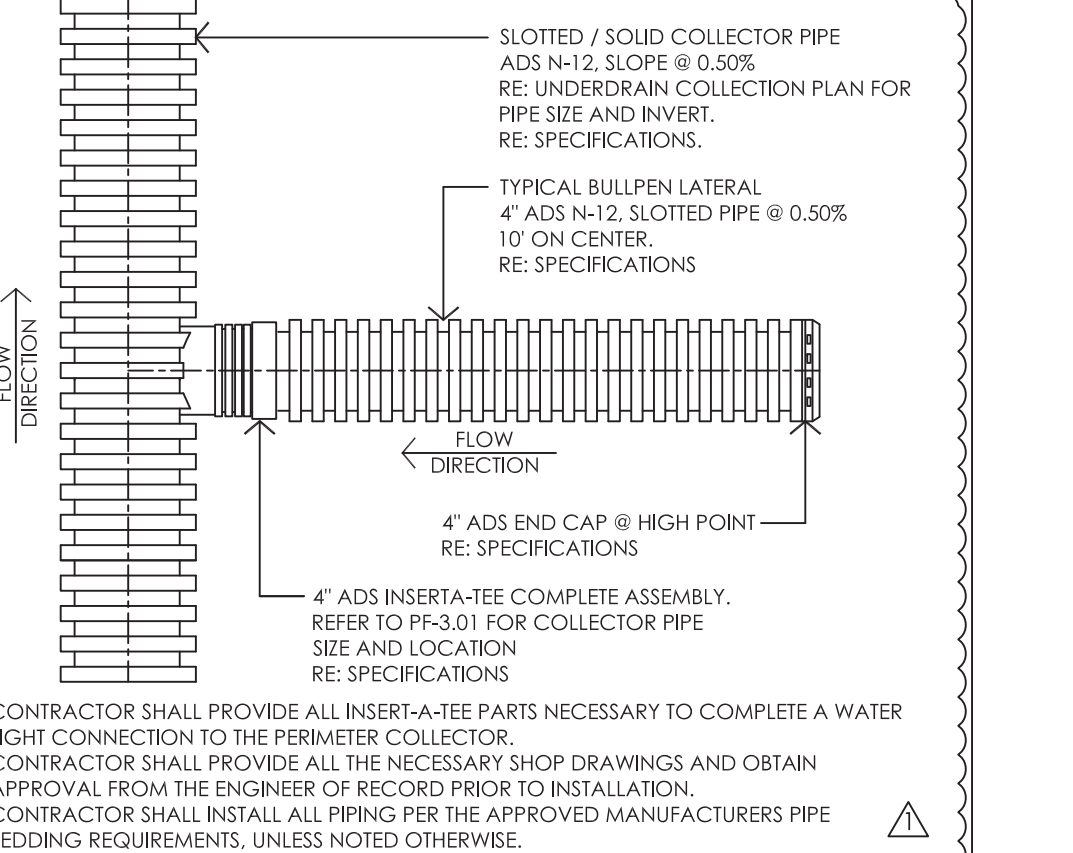
P SYNTHETIC TURF PROFILE (BULLPEN AREA)
NOT TO SCALE 2019



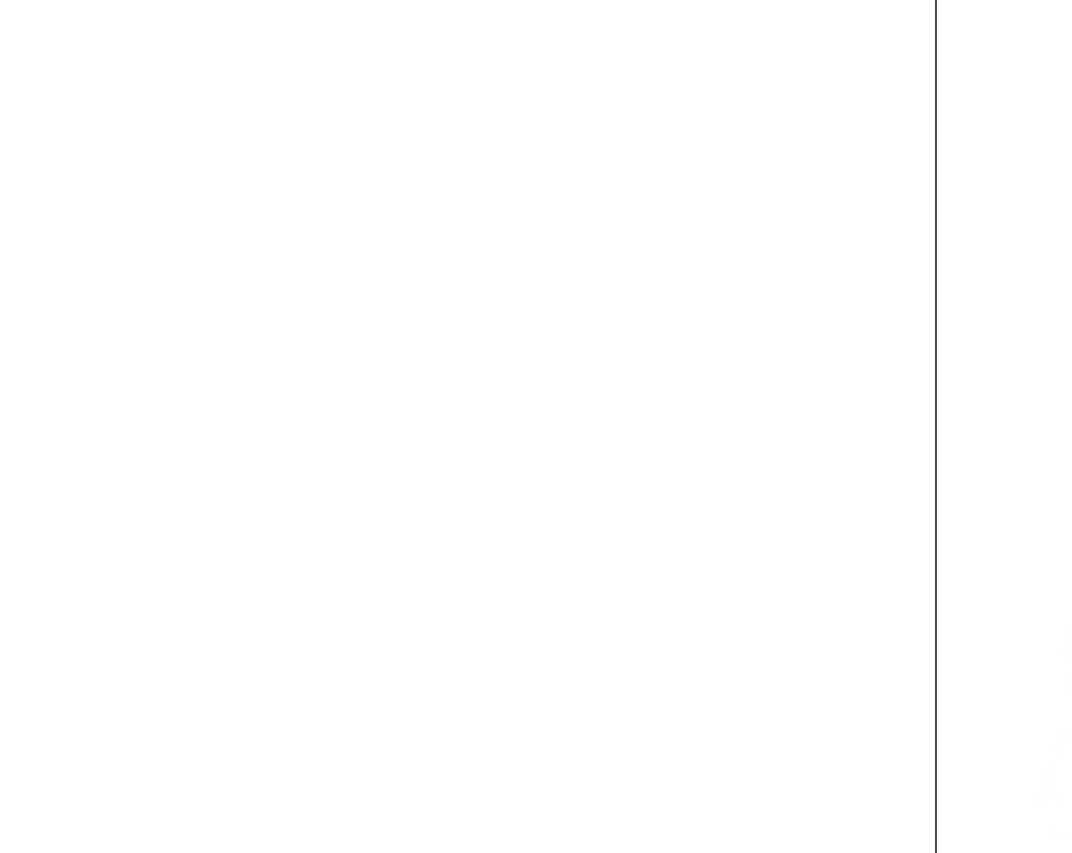
Q SYN. TURF LATERAL TRENCHING DETAIL
NOT TO SCALE 2019



R SYN. SUB-DRAINAGE PIPING COLLECTOR
NOT TO SCALE 2019



S SYN. CONNECTION AT PERIMETER COLLECTOR
NOT TO SCALE 2019

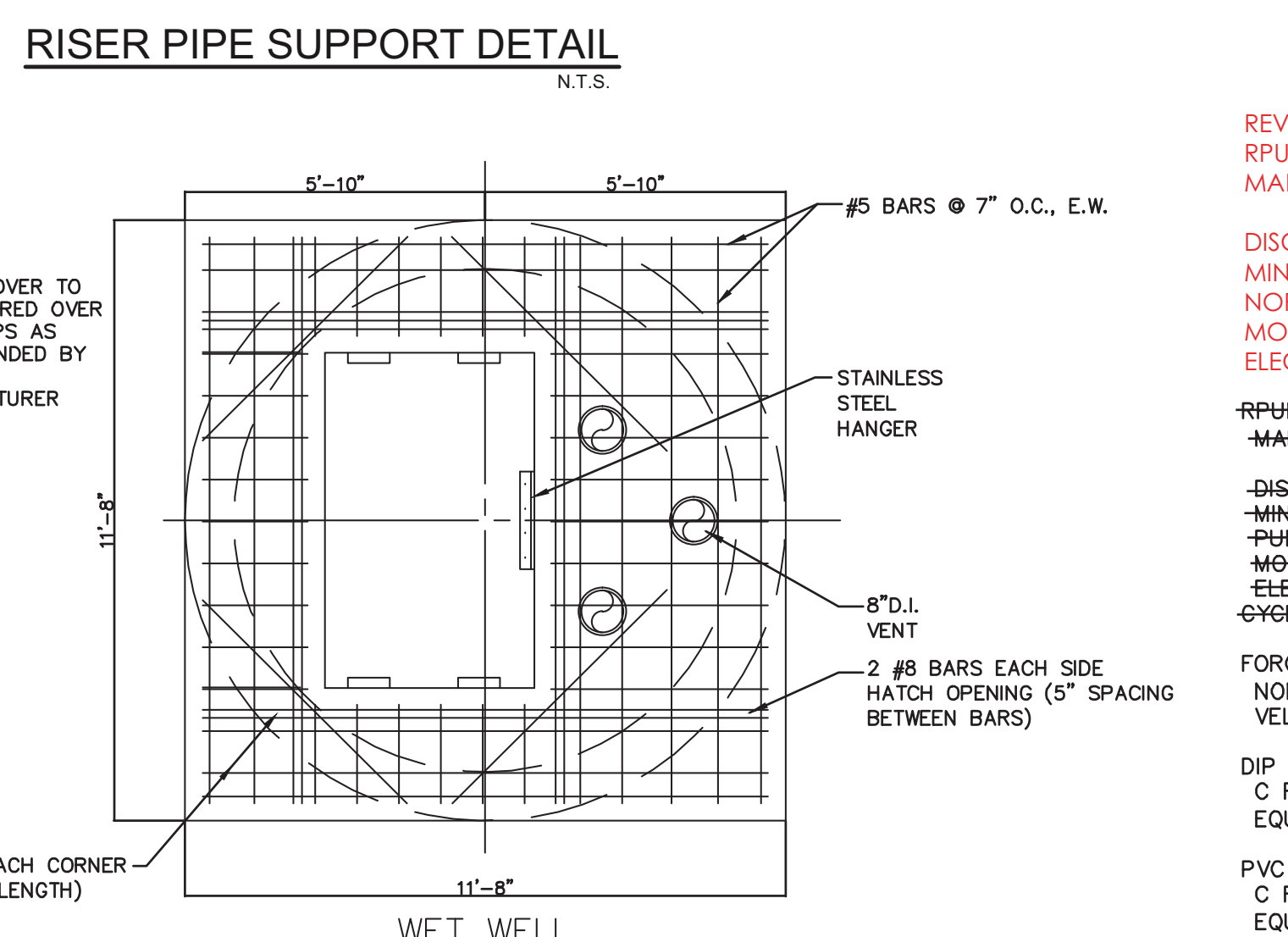
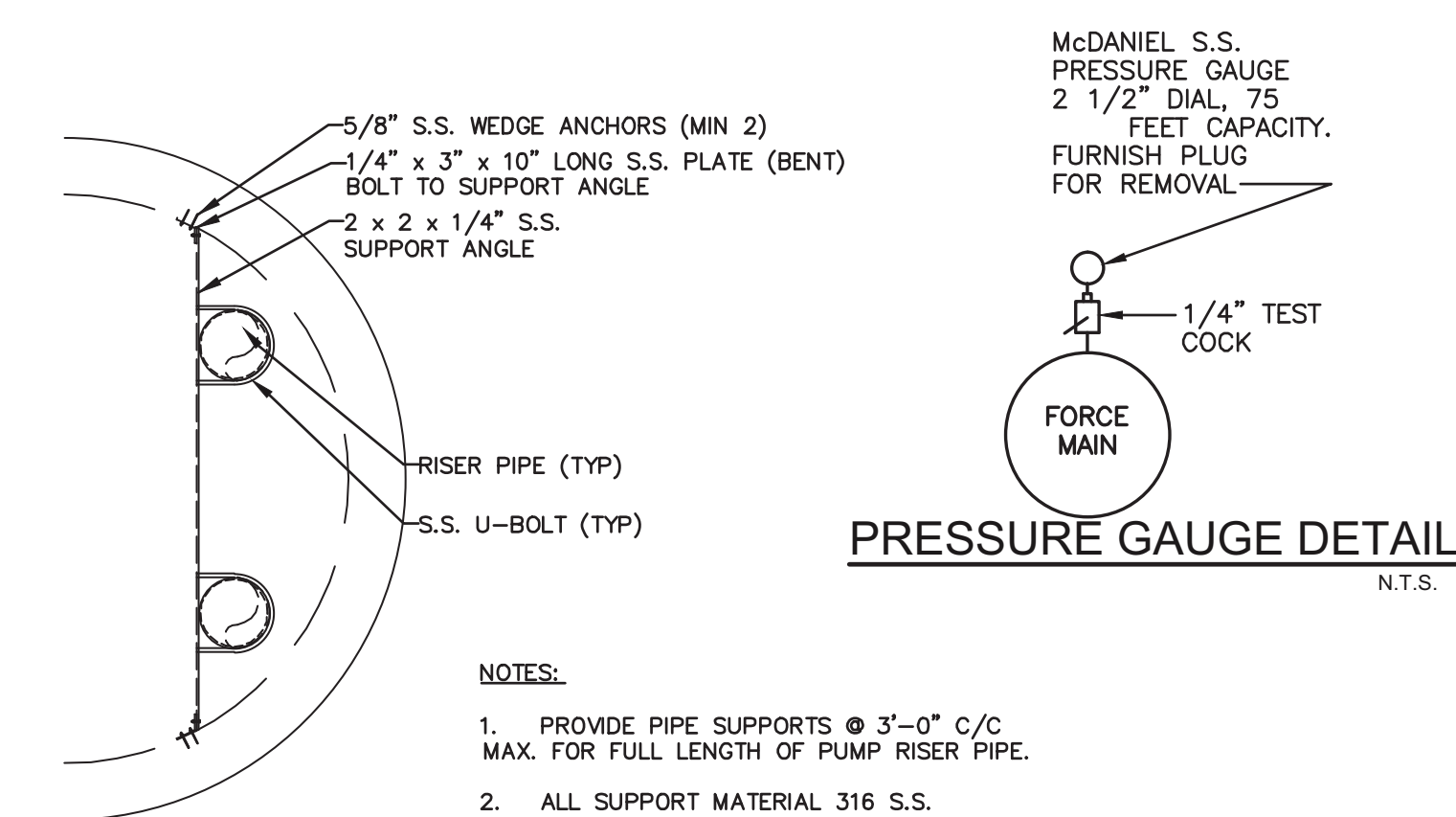


T NOT USED
NOT TO SCALE 2019



REVISIONS		
No.	Date	Comment
1	9/13/19	Baselines/Bullpens/ Synthetic Turf





REVISED PUMP DATA

RPUMP:
MANUF/MODEL: PRIMEX
KRT K 200-316/126XG-S

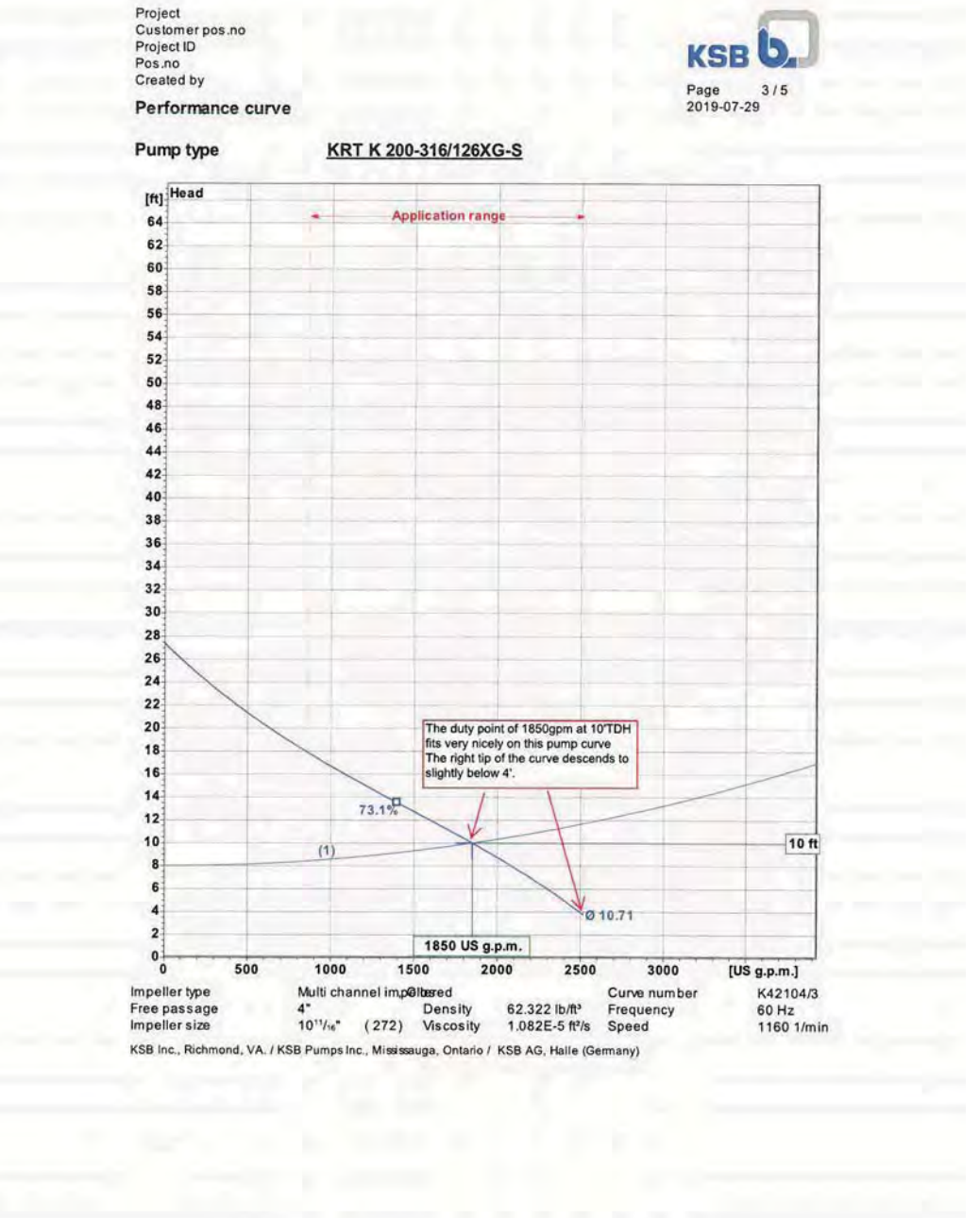
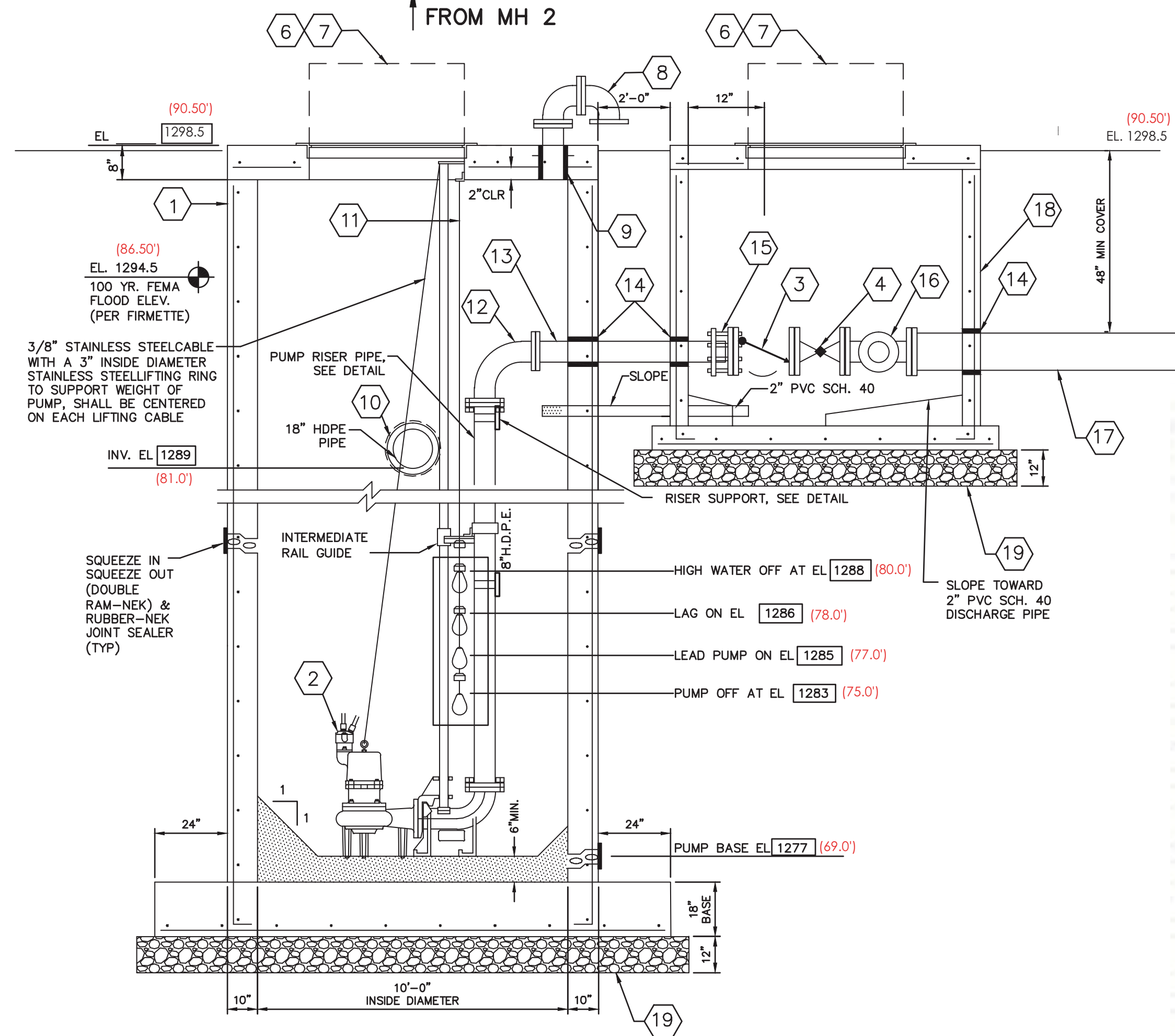
DISCHARGE DIA: 8 INCH
MIN. SOLIDS: 4 INCH
NORMAL SPEEDS: 1160 RPM
MOTOR SIZE: 15 HORSEPOWER
ELECTRICAL: 480 V, 3 PHASE 60 Hz

RPUMP:
MANUF/MODEL: HYDRAMATIC
SOL2500M4-8

DISCHARGE DIA: 8 INCH
MIN. SOLIDS: 4 INCH
PUMP SPEEDS: 670 RPM
MOTOR SIZE: 25 HORSEPOWER
ELECTRICAL: 480 V, 3 PHASE, 60 CYCLE

FORCEMAIN:
NOMINAL PIPE SIZE: 12"
VELOCITY: 4 FPS

PVC FORCEMAIN:
C FACTOR = 130
EQUIVALENT LENGTH = 263'



TECHNICAL DATA

Operating data		Design	
Flow	1850 US g.p.m.	Head	73.1 ft
Head	100 ft	Impeller type	Multi-inlet impeller
Shaft power	4.46 hp	Impeller size	272 x 130 mm
Efficiency	77 %	Frame size	Max 200 x 12 inch
Required pump NPSH	11.2 ft	Stages	1
Head (ft)	22.4	Color number	R42045
Application range	Flow: 17.8 m³/h, 378 US g.p.m.	Type of bearings	Antifriction
	Head: 800 US g.p.m.	Max. oil bearing	Grease lubrication, lubricated for lifetime
	Flow: 17.8 m³/h, 378 US g.p.m.	Lubrication	Pressure setting
		Nominal pipe size (DN)	8 inch
		Nominal pipe size (in)	8 inch
		Discharge part	CLASS 125
		Nominal pipe size (DN)	8 inch
		Nominal pipe size (in)	8 inch
		Discharge part (DN)	ASME/ANSI B16.5
		Discharge part (in)	8 inch
		Material	Cast iron EN-GJL-250 (A-48 Class 350)
		Discharge cover	Cast iron EN-GJL-250 (A-48 Class 350)
		Impeller	Cast iron EN-GJL-250 (A-48 Class 350)
		Shaft	Stainless steel AISI 304 (A-182 Type 304)
		Bearing bracket	Cast iron EN-GJL-250 (A-48 Class 350)
		Motor winding	Cast iron EN-GJL-250 (A-48 Class 350)
		Shaft seal	Stainless steel AISI 304 (A-182 Type 304)
		Shaft protection sleeve	Cast iron EN-GJL-250 (A-48 Class 350)
		Carriage wear ring	White rubber (NBR)
		Impeller wear ring	White rubber (NBR)
		Oil ring	

- ITEM DESCRIPTION**
- WET WELL: SHALL BE ROUND PRECAST CONCRETE MEETING STANDARD SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE, A.S.T.M. C-478 LATEST REVISION AND THE REQUIREMENTS SHOWN. CONCRETE SHALL ATTAIN A COMPRESSIVE STRENGTH OF 4000 P.S.I. AT 28 DAYS. JOINT SHALL BE SEALED WITH RAM-NEK FLEXIBLE SEALER CONFORMING TO FEDERAL SPECIFICATION SS-S-00210 IN AMOUNT SUFFICIENT TO SQUEEZE OUT PAST THE PLANE OF THE WALL. RUBBER-NEK JOINT SEALER SHALL BE USED ON EXTERNAL JOINTS.
 - PUMP: HYDR-O-MATIC OR APPROVED EQUAL SUBMERSIBLE TYPE MEETING REQUIREMENTS SHOWN IN THE DESIGN CRITERIA. INCLUDES 304 SCH 40 S.S. RAILS, WITH S.S. INTERMEDIATE SUPPORTS. PUMP SHALL BE EQUIPPED WITH SEAL FAILURE SENSORS AND HEAT SENSORS. SET PUMP IN FIELD IN PROPER RELATION TO COVER. (NO EQUAL TO MAINTAIN CONSISTENCY WITH EXISTING INVENTORY)
 - 8" CHECK VALVE: M & H - STYLE 159-02 OR APCO SERIES 6000 SWING CHECK WITH LEVER AND WEIGHT. AND RUBBER FACED CLAPPER. PROVIDE WITH LIMIT SWITCH TO INDICATE VALVE OPEN.
 - 8" RESILIENT SEAT GATE VALVE, FLANGED ENDS, HANDWHEEL ACTUATOR, AMERICAN FLOW CONTROL, MUELLER, MCWANE, OR U.S. PIPE AND FOUNDRY.
 - 8" 90° DIP BEND, FLANGED.
 - WET WELL ACCESS HATCH COVER: SHALL BE MANUFACTURED BY HALLIDAY CORPORATION OR APPROVED EQUAL. CLEAR OPENING 42" BY 60". SHALL HAVE DOUBLE DOOR ACCESS. ACCESS FRAME AND COVERS SHALL BE 1/4 INCH ALUMINIUM DIAMOND PATTERN PLATE. FRAME SHALL SUPPORT GUIDE RAILS AND STAINLESS STEEL CABLE HOLDER AS PER HYDR-O-MATIC SPECIFICATIONS. COVERS SHALL BE PROVIDED WITH LIFTING HANDLE AND SAFETY LATCH TO HOLD COVER IN OPEN POSITION. LOCKING HASPS SHALL BE FURNISHED FOR EACH COVER. STAINLESS STEEL HARDWARE SHALL BE USED THROUGHOUT. ALL SURFACES IN CONTACT WITH CONCRETE SHALL HAVE A SHOP COAT OF ZINC CHROMATIC PRIMER, APPROVED ALKALI RESISTANT PAINT, OR OTHER APPROVED PROTECTIVE COATING. LIVE LOAD = 300 P.S.F.
 - PADLOCK FOR ACCESS HATCH COVERS AND CONTROL PANELDOOR: PADLOCKS FURNISHED BY OTHERS.
 - VENT PIPE 8" FLANGED D.I.P. WITH 1/4" MESH STAINLESS STEEL SCREEN BETWEEN FLANGED FITTINGS.
 - 8" FLANGED X PE WALL PIPE.
 - NEOPRENE BOOT CONFORMING TO ASTM C-923.
 - LEVEL CONTROLS: SHALL BE ROTO-FLOATS AS MANUFACTURED BY ANCHOR SCIENTIFIC OR EQUAL.
 - 8" LONG RADIUS 90° DIP BEND, FLG.
 - 8" DIP SPOOL PIECE, FLG x FLG
 - LINK SEAL MODEL S-316 WITH MODEL CS PLASTIC WALL SLEEVE.
 - 8" ROCKWELL #912 CAST IRON FLANGED COUPLING ADAPTER W/ STAINLESS STEEL HARDWARE.
 - 8"x8"x12" TEE, FLANGED.
 - 12" PVC STORMWATER FM (AWWA C-900, DR 18, WHITE)
 - VALVE VAULT - PRECAST CONCRETE 4000 PSI STRUCTURE WITH INTEGRALLY CAST CONCRETE BASE SLAB. REINFORCEMENT OF BASE SLAB SHALL BE WELDED OR CONTINUOUS WITH WALL REINFORCEMENT. WALL WIDTH: 6" FOR VALVE VAULT. AS AN ALTERNATIVE LAY 8" CONCRETE BLOCK WALL ON SLAB. INSERT #5 REBAR (2 PER FT.) & FILL WITH CONCRETE.
 - CRUSHED STONE BEDDING MATERIAL IN ACCORDANCE WITH ASTM C-33 GRADATION #67 (3/4" INCH TO #4 SIEVE).

- GENERAL NOTES**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL PAY FOR ANY BUILDING DEPARTMENTS PERMITS AND/OR INSPECTIONS REQUIRED AND SHALL NOTIFY OWNER AND ENGINEER IN WRITING 24 HOURS PRIOR TO START OF CONSTRUCTION.
 - SIX (6) COPIES OF SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW.
 - SIX (6) COPIES OF MANUFACTURER'S TECHNICAL MANUAL AND CERTIFIED PUMP CURVES SHALL BE PROVIDED.
 - ALL FASTENERS OF FLANGES AND ETC. INSIDE WET WELL AND VALVE VAULT WILL BE MINIMUM 304 STAINLESS STEEL.
 - PAINT ALL DUCTILE IRON PIPE AND PUMP DISCHARGE ELBOW WITH AN INTERIOR COATING OF 24 MILS DFT AND AN EXTERIOR COATING OF 16 MILS DFT OF PORTER TANK MAX-BUILD NO. 7080 OR APPROVED EQUAL. SURFACE PREPARATION AND APPLICATION TO BE PER MANUFACTURER'S RECOMMENDATIONS. COLOR: BLACK
 - REFER TO ARCH AND SITE PLANS FOR SITE DETAILS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE TO SUPPLY THE ENGINEER WITH AS-BUILT ELEVATIONS WHEREVER ELEVATIONS ARE SHOWN ON THIS DRAWING.

DESIGN FLOW = 1850 @ 10 TDH GPM/PUMP

Printed: 17 Jul 19 @ 09:16

PLAN REVISIONS

No.	Date	Comment

CONSULTANTS:
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PUNTA GORDA, FLORIDA, 33950
T: 1+ (941) 639-2818
www.ftesports.com
FTE (dba) FTE sports

WICHITA, KANSAS - MULTI-SPORT STADIUM

Wichita, Kansas

SHEET NAME:
PLAYING FIELD PUMP STATION LAYOUT DESIGN

SHEET NUMBER:
PS-1.00

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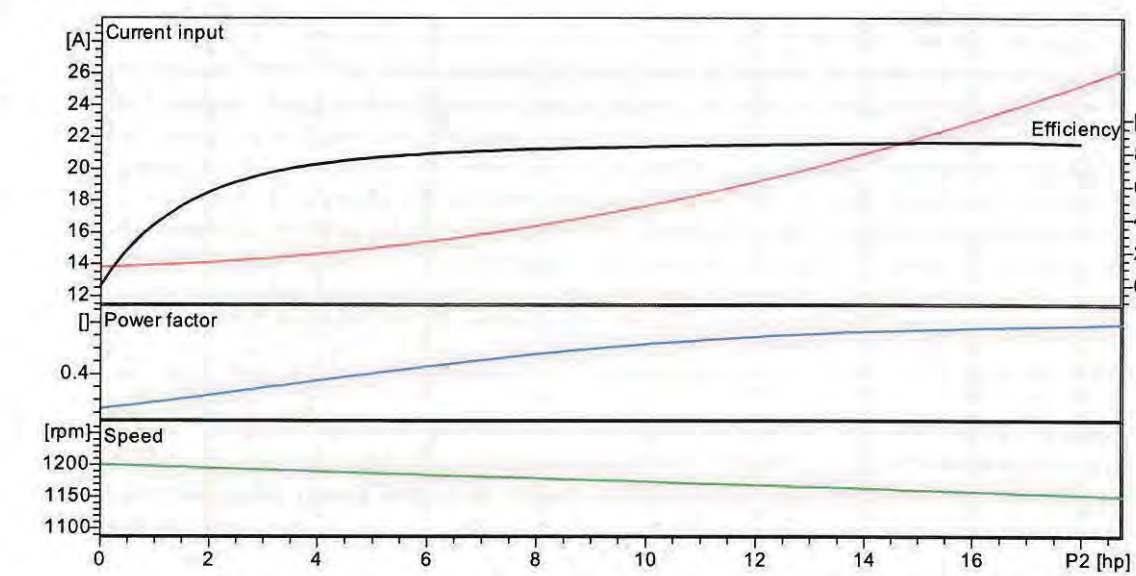


Data sheet: Motor data

Motor type		126XG	
Motor manufacturer	KSB Aktiengesellschaft	Rated voltage	460 V
Design acc. standard	-	Rated frequency	60 Hz
Service factor	1.15	Rated power P2	15 hp
Degree of protection	IP68	Rated current	22 A
Insulation class	F	Nominal speed	1160 rpm
Starting mode	Direct	NEMA code letter	J
No. starts /h	20	Starting to rated current	6.8
Coolant temperature	$\leq 40^{\circ}\text{C}$ (104 °F)	Starting current	150 A
Motor casing	Grey cast iron EN-GJL-250 (A48 Class 35B)		
Explosion protection	Class I, Div. 1, Groups C,D, T3		
Pump type	KRT K 200-316/126XG-S		

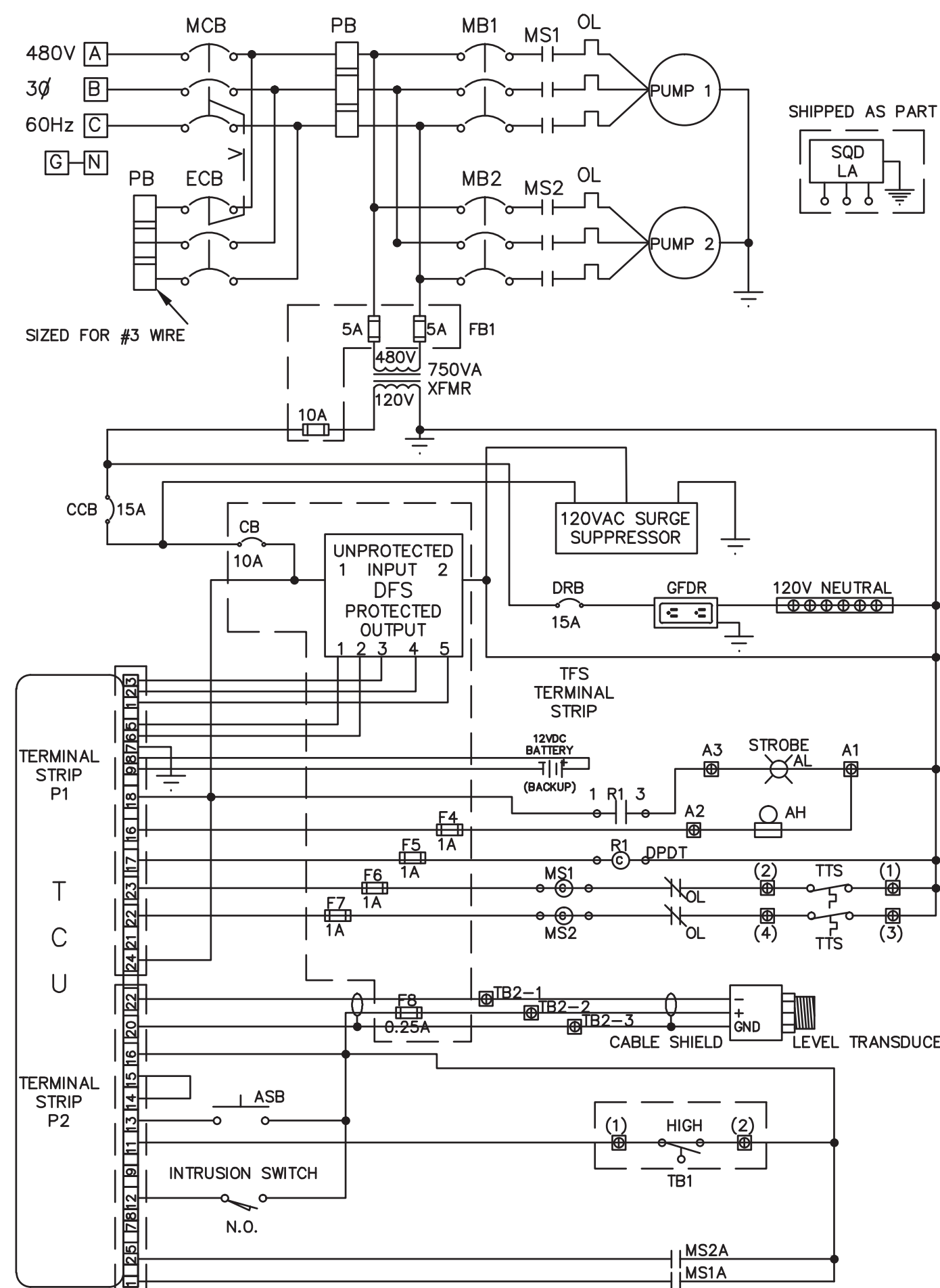
Load	P1 kW	P2 hp	eta %	cos phi	I A
4/4	12.98	15.0	86.2	0.74	22.0
3/4	9.88	11.3	84.9	0.67	18.5
2/4	6.79	7.5	82.3	0.53	16.1
1/4	3.90	3.8	71.8	0.34	14.6

Main cable 1 x AWG 13-12 Diameter 0.73...0.77 inch
Control cable --- Diameter
Cable, outer sheath Waterproof synthetic rubber compound
Cable length 10 m

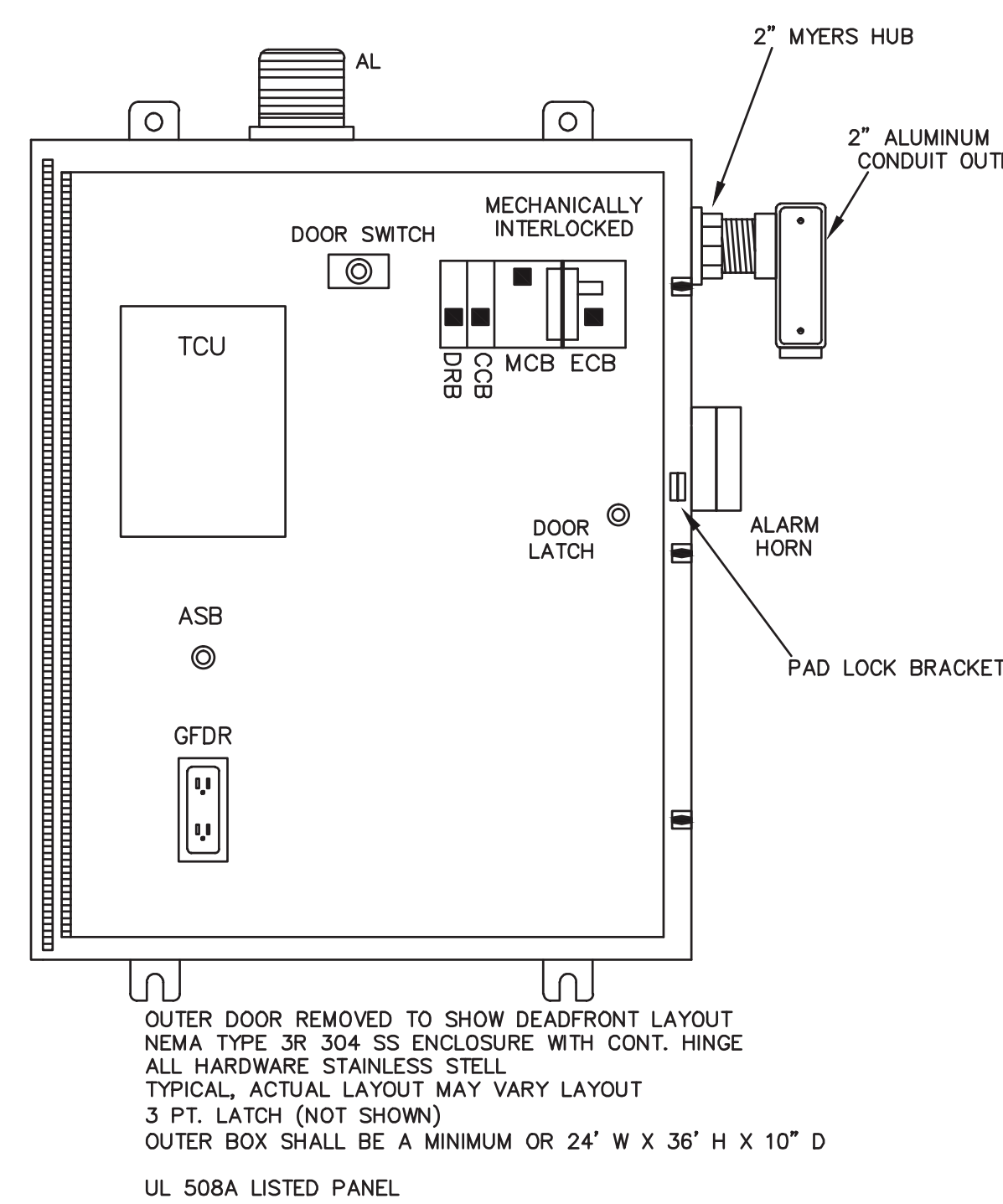


KSB Inc., 4415 Sanelen Road, Richmond, Virginia 23231, Phone: 001-804-222-1818, Fax: 001-804-226-6961
KSB Pumps Inc, 5885 Kennedy Road, Mississauga, Ontario L4Z 2G3 (Canada), Phone: (905) 568-9200, Fax: (905) 568-9120
KSB Aktiengesellschaft, Turmstrasse 92, 06110 Halle (Germany), Phone +49 (345) 48260, Fax +49 (345) 4826 4699, www.ksb.com

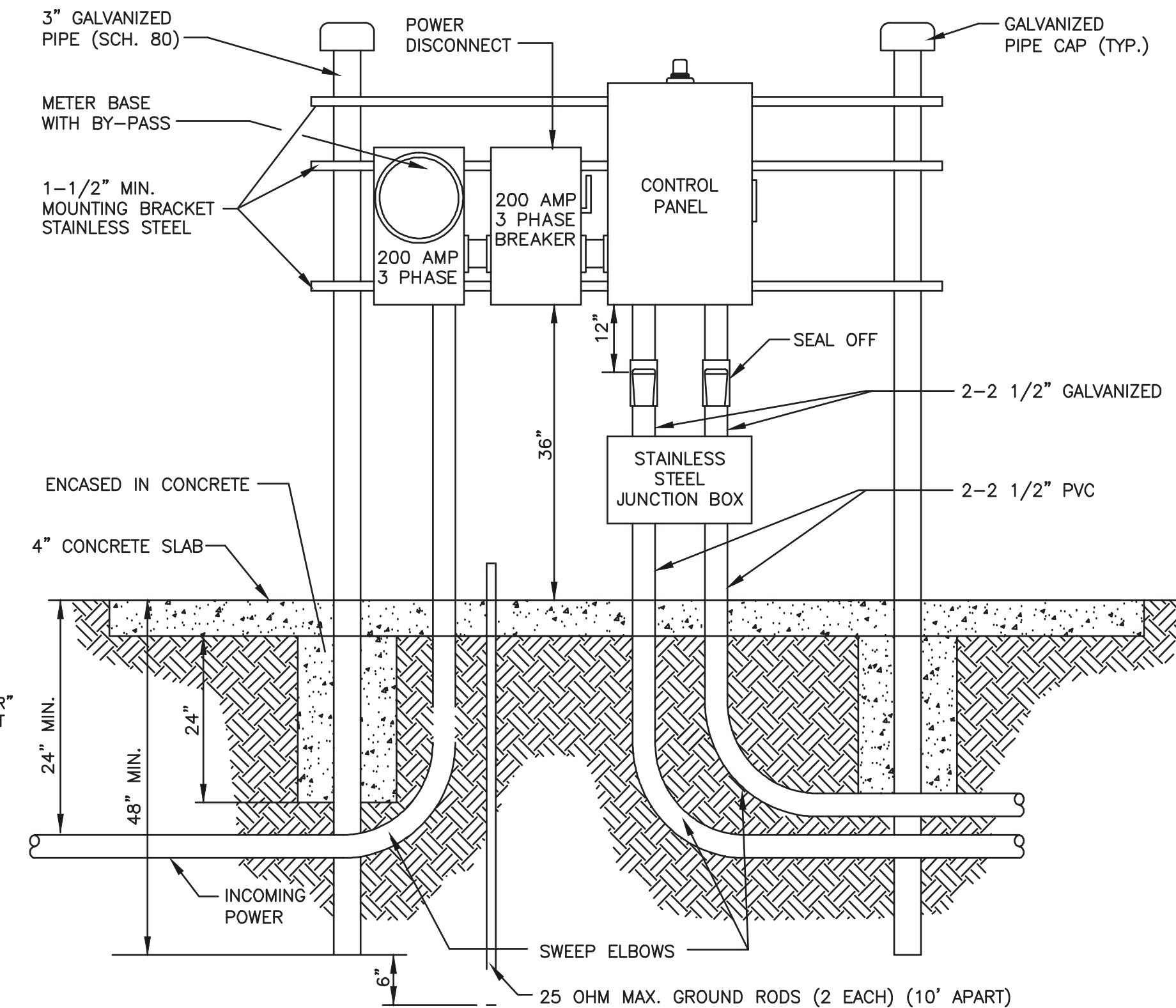
ELECTRICAL DATA



DUPLEX CONTROL PANEL ENCLOSURE LAYOUT - 480V/3PH



- LEGEND**
- AB - ALARM BELL
 - AL - ALARM LIGHT
 - ASB - ALARM SILENCE BUTTON
 - CB - CIRCUIT BREAKER
 - CCB - CONTROL CIRCUIT BREAKER
 - DFS - DATA FLOW SYSTEMS
 - DPDT - DOUBLE POLE DOUBLE THROW
 - DRB - DUPLEX RECEPTACLE BREAKER
 - ECB - EMERGENCY CIRCUIT BREAKER
 - F - FUSE
 - FL - FLASHER
 - GFDR - GROUND FAULT DUPLEX RECEPTACLE
 - GR - GENERATOR RECEPTACLE
 - LA - LIGHTING ARRESTOR
 - MB - MOTOR BREAKER
 - MCB - MAIN CIRCUIT BREAKER
 - MS - MOTOR STARTER
 - OL - OVERLOAD
 - PB - POWER BLOCK
 - PCU - PUMP CONTROL UNIT
 - R - RELAY
 - TB - TERMINAL BLOCK
 - TFS - TRANSIENT FILTER SHIELD
 - TTS - THERMAL TERMINAL STRIP



- NOTES:**
- 480 VOLT POWER SUPPLY.
 - POWER SUPPLY SHALL BE UNDERGROUND ON THE LIFT STATION SITE AND SHALL BE 3 PHASE FROM A 3 PHASE SOURCE ONLY.
 - NO WIRING SPLICES ARE ALLOWED WITH THE EXCEPTION OF THE JUNCTION BOX.
 - LIGHTNING ARRESTOR SHALL BE LOCATED AHEAD OF CONTROL PANEL (GE OR EQUAL).
 8. LIFT STATIONS 30 H.P. AND ABOVE SHALL BE EQUIPPED WITH ON-SITE GENERATOR.
 - ADD SOFT START 20 H.P. AND ABOVE.

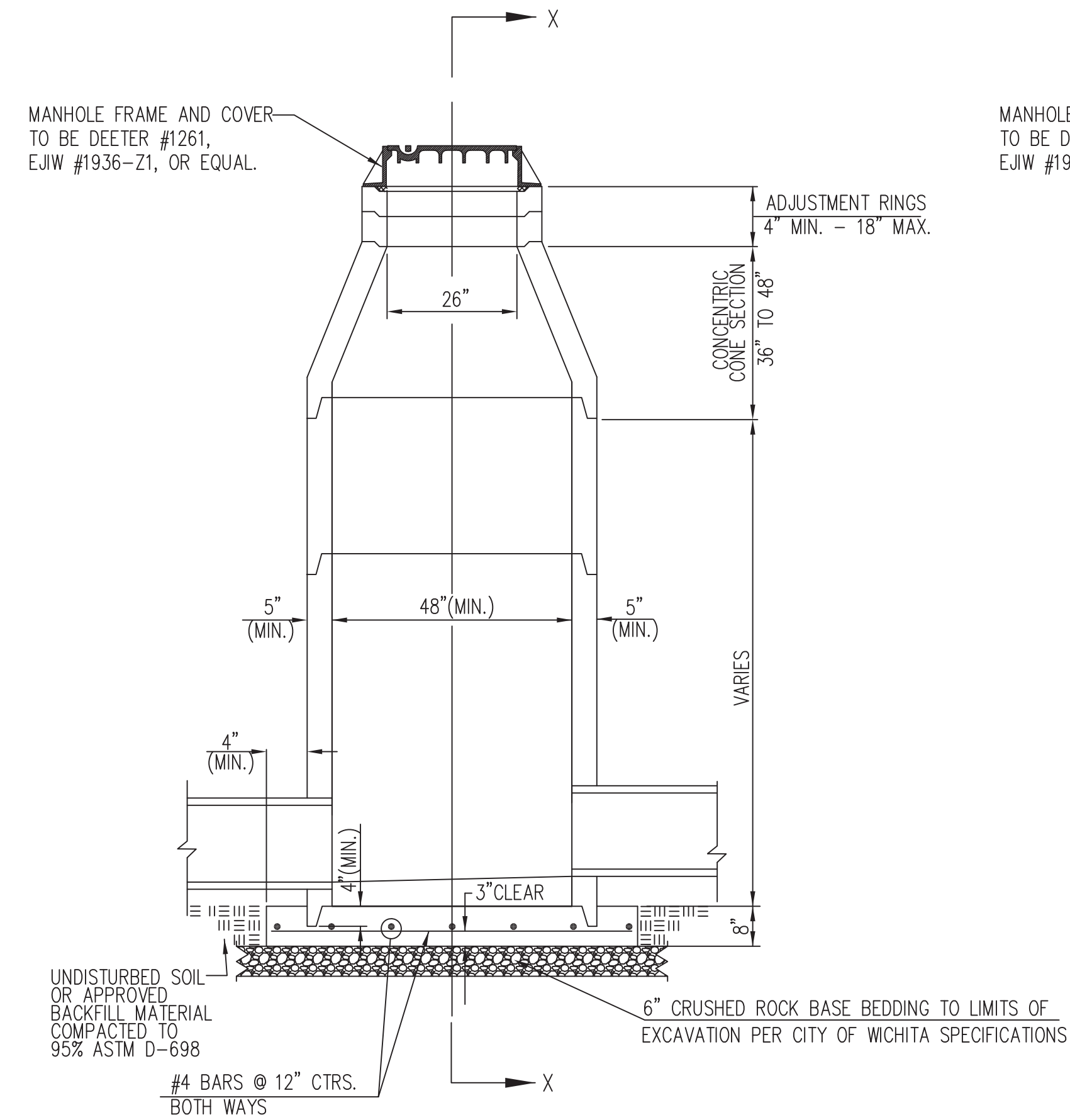
PUMP CONTROL PANEL DETAIL
N.T.S.

PLAN REVISIONS		
No.	Date	Comment

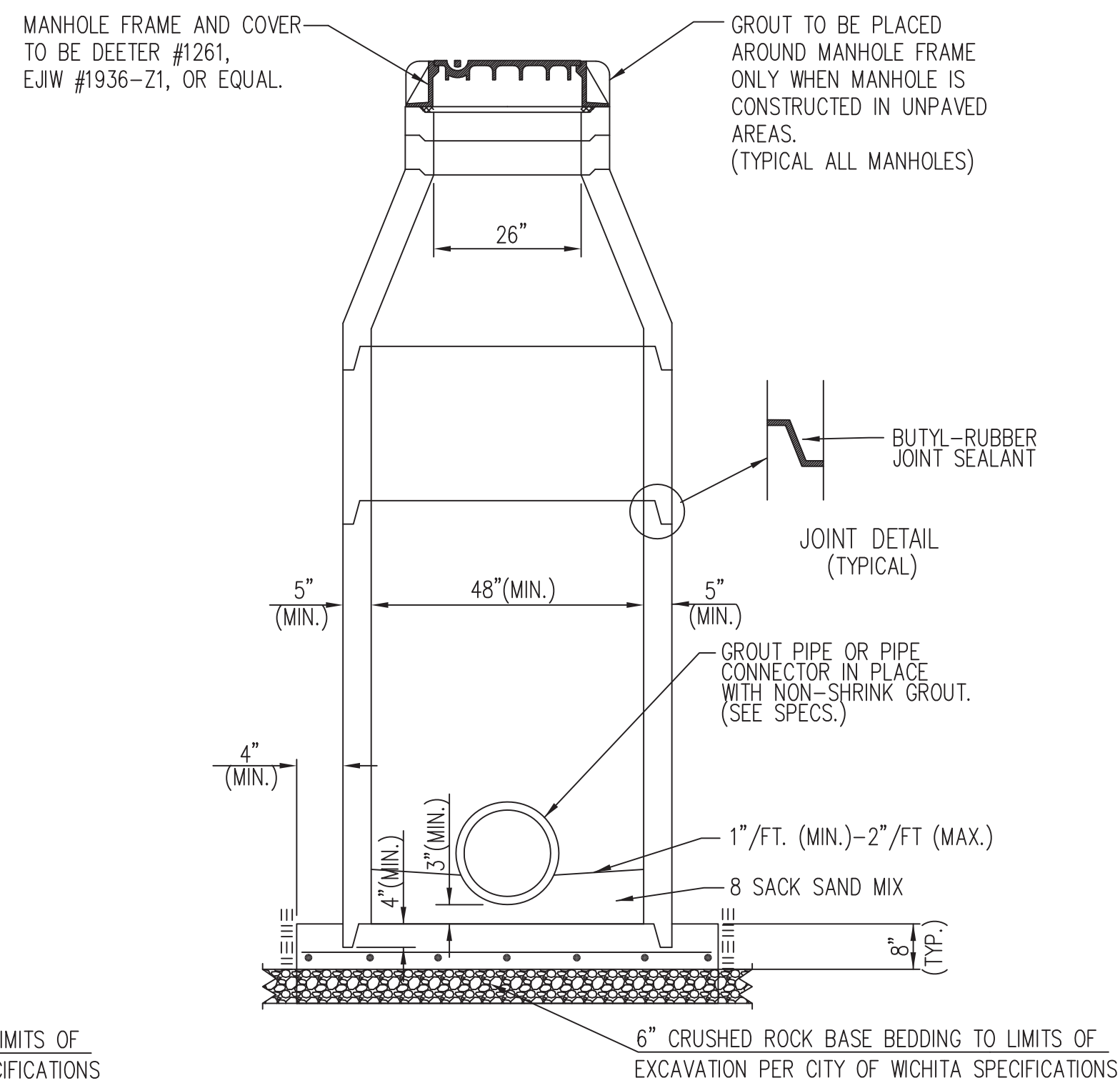
CONSULTANTS:	PRIME:
Giffels-Webster Engineers, Inc. 900 PINE STREET, SUITE#225 ENGLEWOOD, FLORIDA, 34223 T: 1+ (941) 475-7981	FTE sports 8250 PASCAL DRIVE PUNTA GORDA, FLORIDA, 33950 T: 1+ (941) 639-2818 www.ftesports.com FTE (dba) FTE sports

WICHITA, KANSAS - MULTI-SPORT STADIUM
Wichita, Kansas

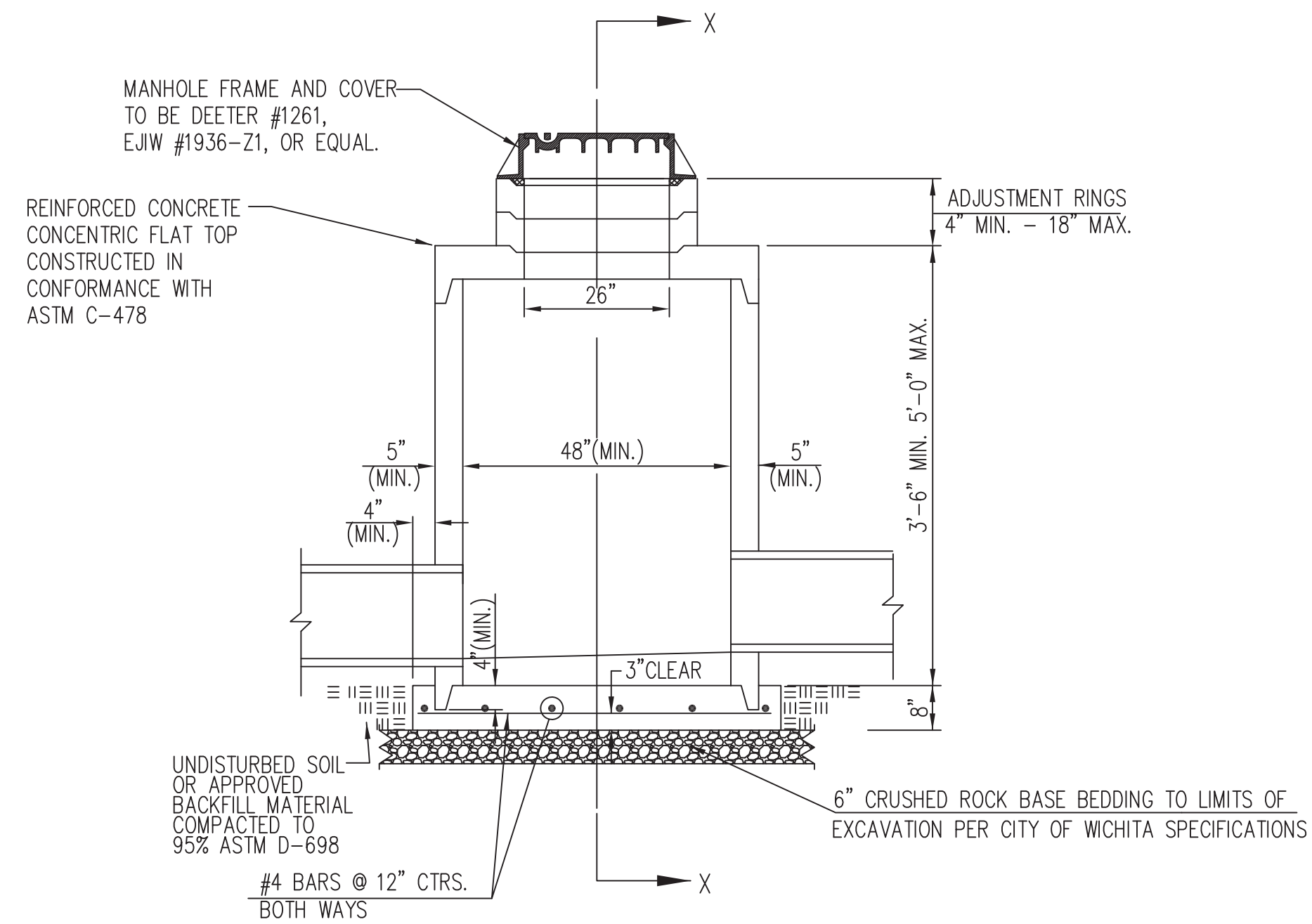
SHEET NAME: **PLAYING FIELD PUMP STATION LAYOUT DESIGN**
SHEET NUMBER: **PS-1.01**



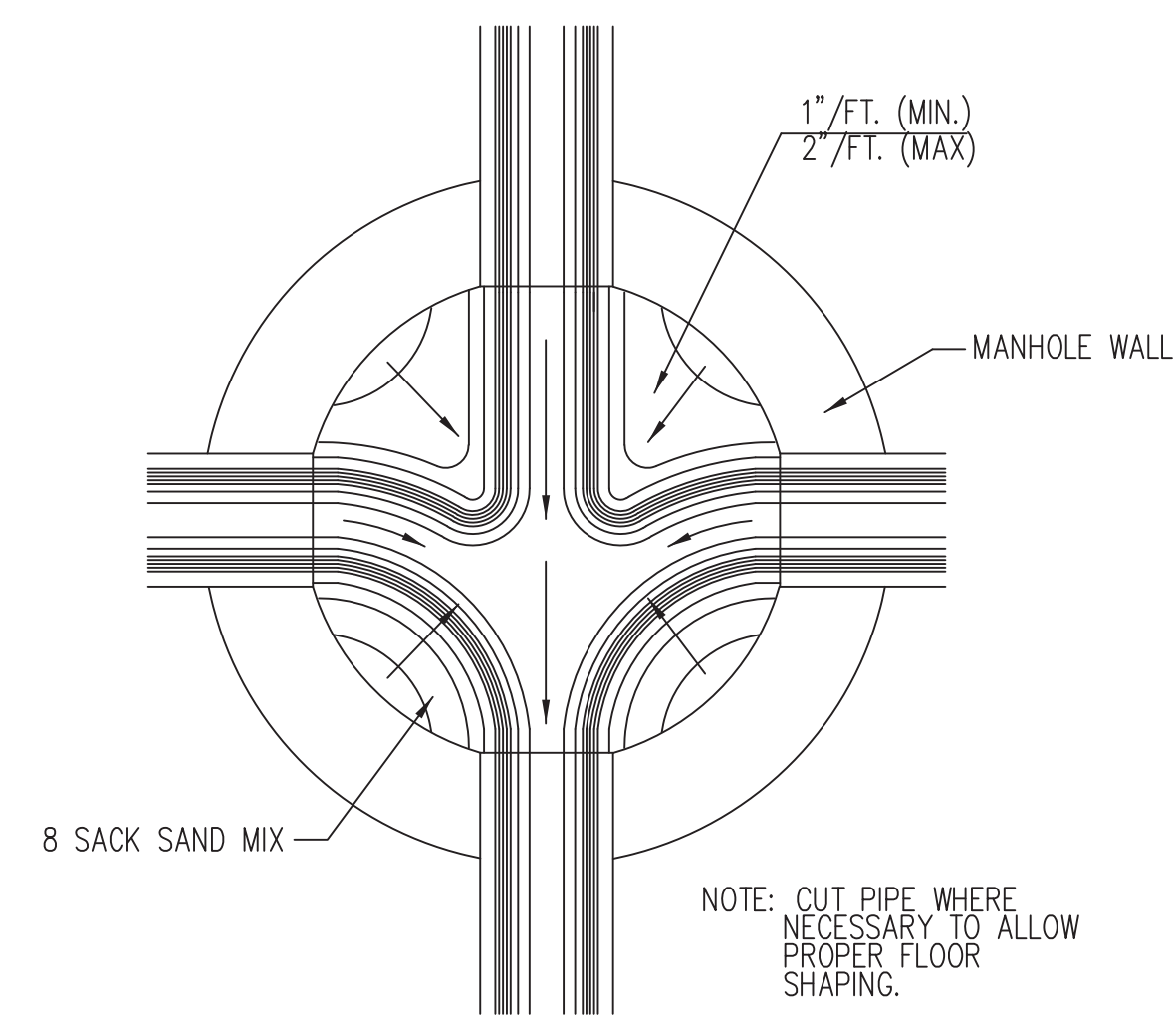
PRECAST STANDARD MANHOLE TYPE "A"



SECTION X-X (TYPICAL)



PRECAST SHALLOW MANHOLE TYPE "B"



TYPICAL MANHOLE FLOOR SHAPING

GENERAL NOTES

- IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL HAVE THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
- STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
- ALL MANHOLE CONSTRUCTION SHALL BE WATER TIGHT.
- TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF ASTM C-478 AS MODIFIED BY THE SPECIFICATIONS.
- CONCRETE USED FOR MANHOLE CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO MANHOLE BASE.
- MANHOLES WITH PIPE SIZES 24" AND LARGER SHALL HAVE 5 FOOT INSIDE DIAMETER (MIN.)
- MANHOLES WITH PRECAST BASES MAY BE USED AT THE CONTRACTORS OPTION. THESE MANHOLES SHALL HAVE AN 8" MINIMUM BASE THICKNESS AND SHALL BE PLACED ON AN 8" MIN. CRUSHED ROCK BASE. PIPES SHALL BE ENCASED WITH CRUSHED ROCK TO AT LEAST 3 FEET FROM THE MANHOLE WALL.
- CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN MANHOLE WALL SHALL BE GROUTED FLUSH TO THE MANHOLE WALL WITH HYDRAULIC CEMENT AFTER THE MANHOLE IS IN PLACE. LIFTING HOLES THRU THE MANHOLE WALL WILL NOT BE ACCEPTED.
- THE ENDS OF ALL PIPES IN MANHOLES SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE MANHOLE WALL.
- MANHOLE INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE MANHOLE WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
- MANHOLE FRAME AND COVER TO BE DEETER #1261, EJJW #1936-21, OR APPROVED EQUAL, SEE SW-303.
- FOR FLAT GRATED INLET APPLICATION, GRATE TO BE DEETER #1933, EJJW #1205 MDI, OR APPROVED EQUAL.
- FOR BEEHIVE GRATE APPLICATION, GRATE TO BE DEETER #4495, EJJW #120545, OR APPROVED EQUAL.

REVISED: MARCH 2015

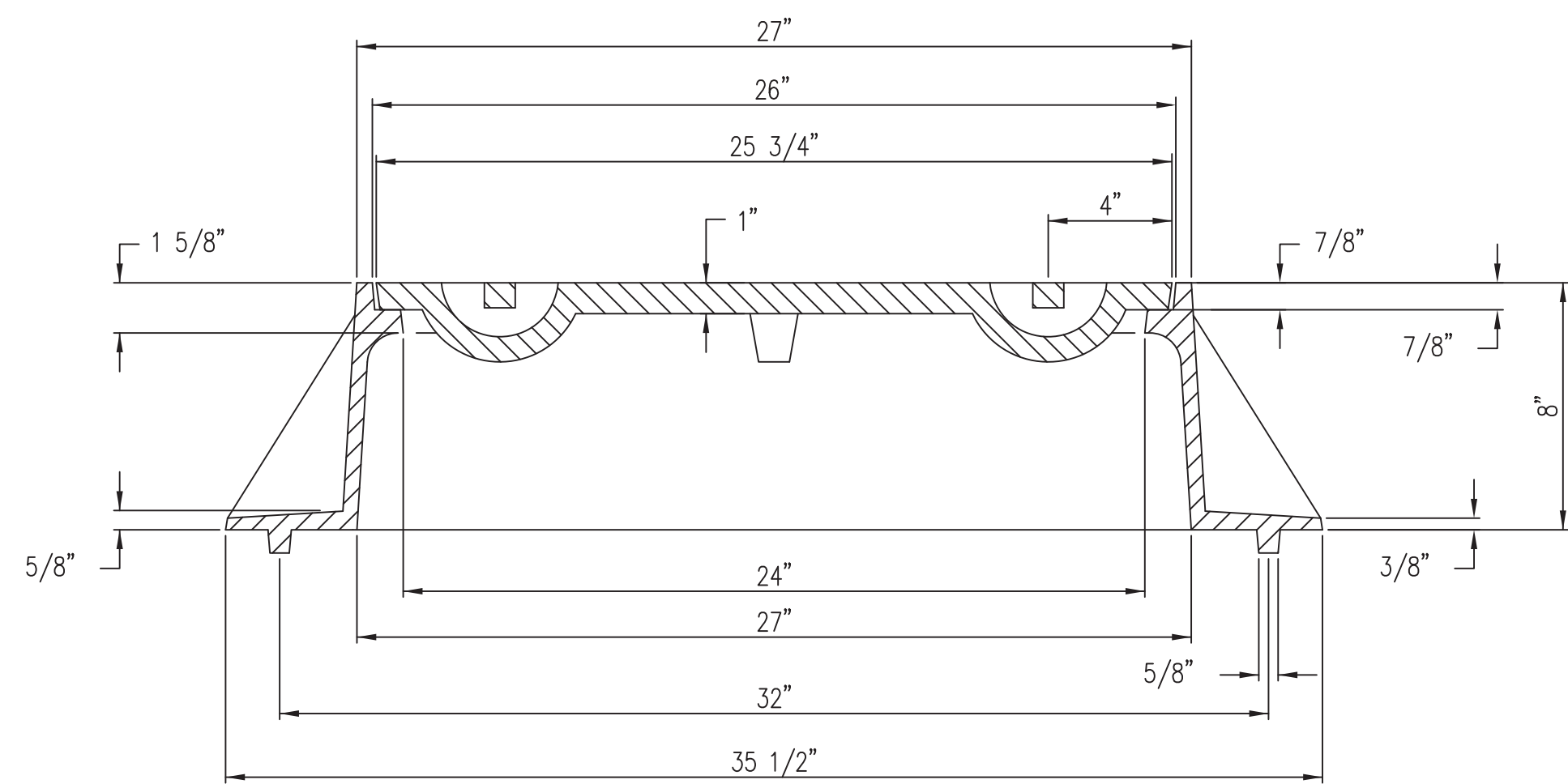
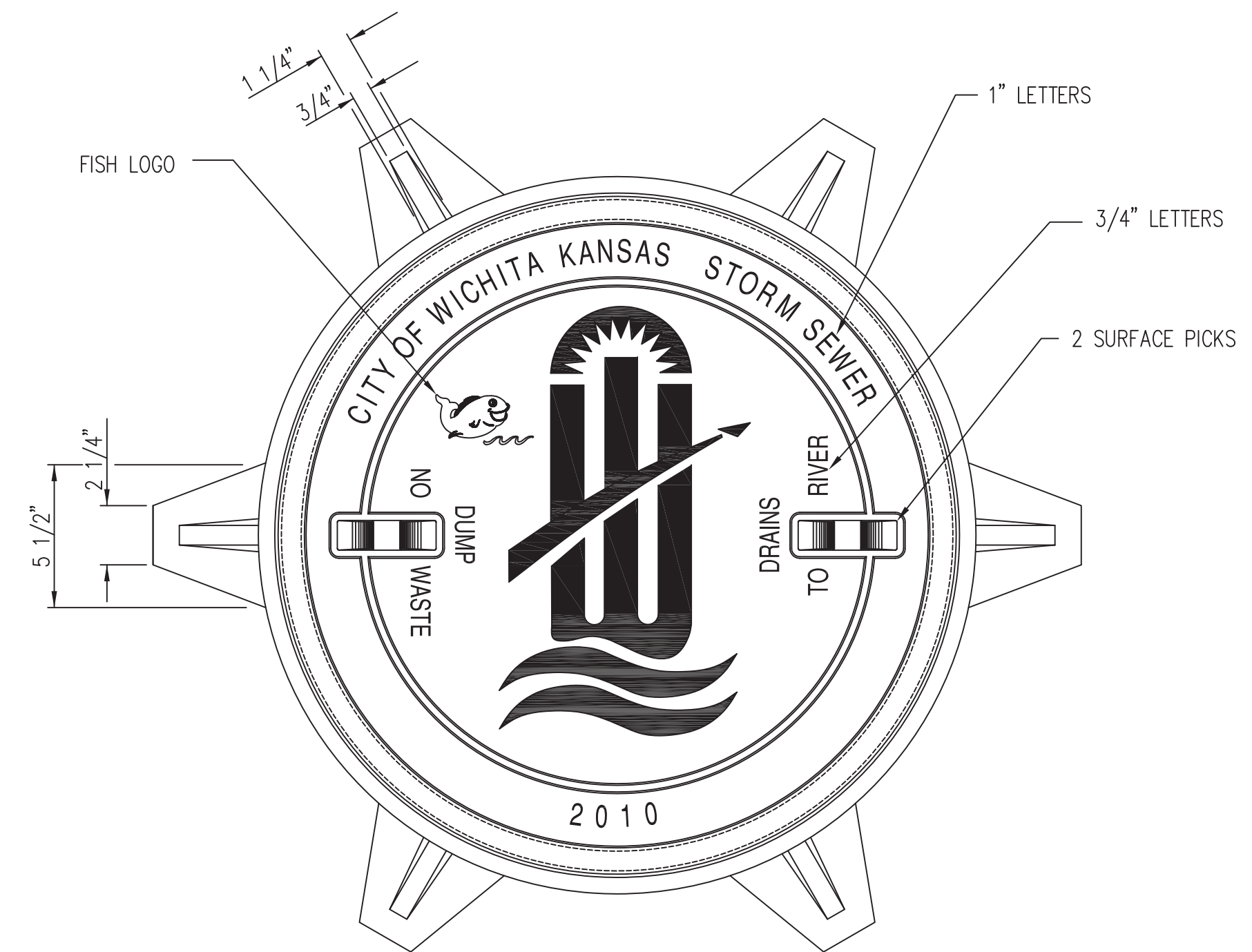
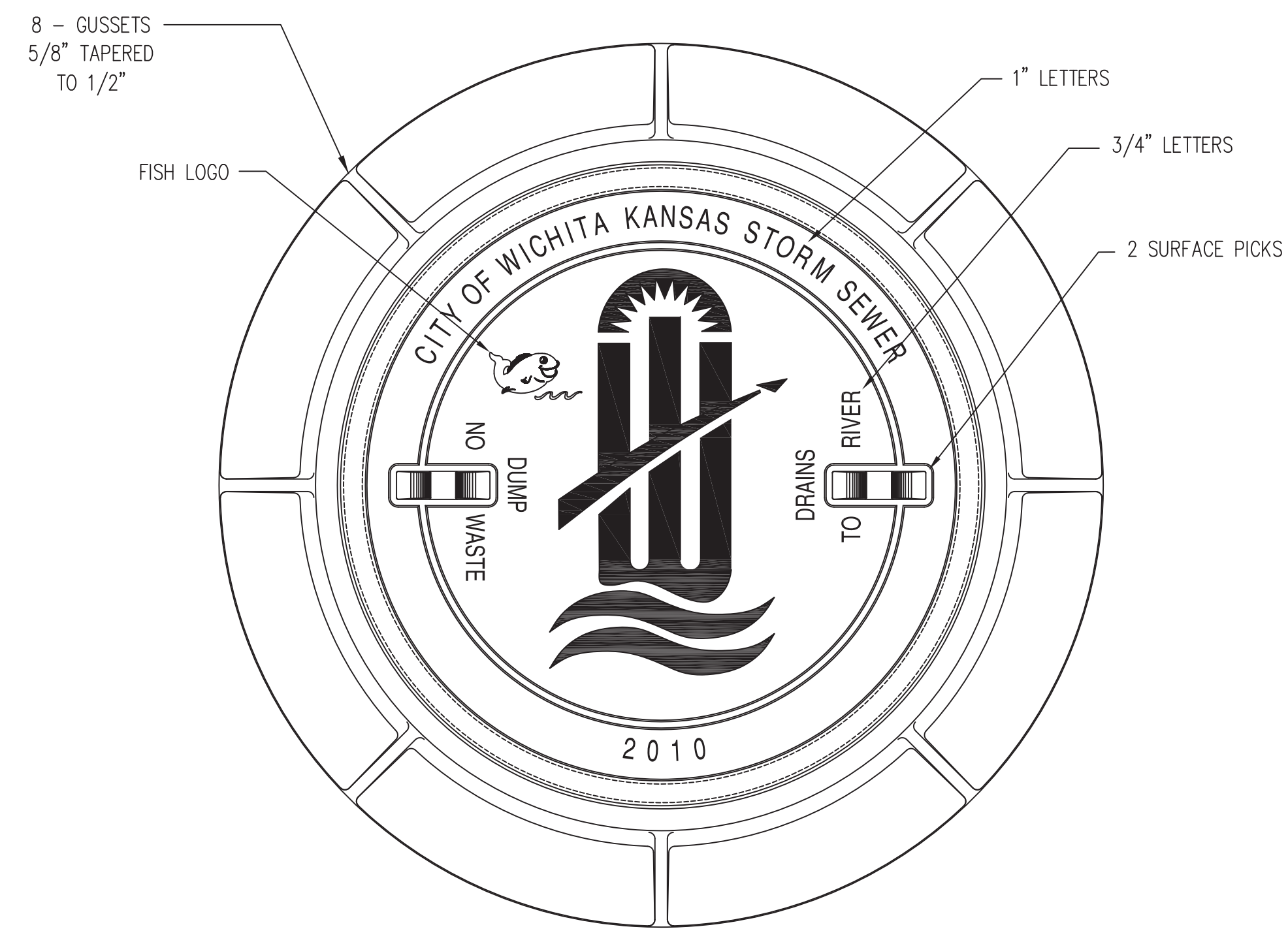


PRECAST CONCRETE MANHOLE (STORM SEWER)

CITY ENGINEER
GARY JANZEN, P.E.

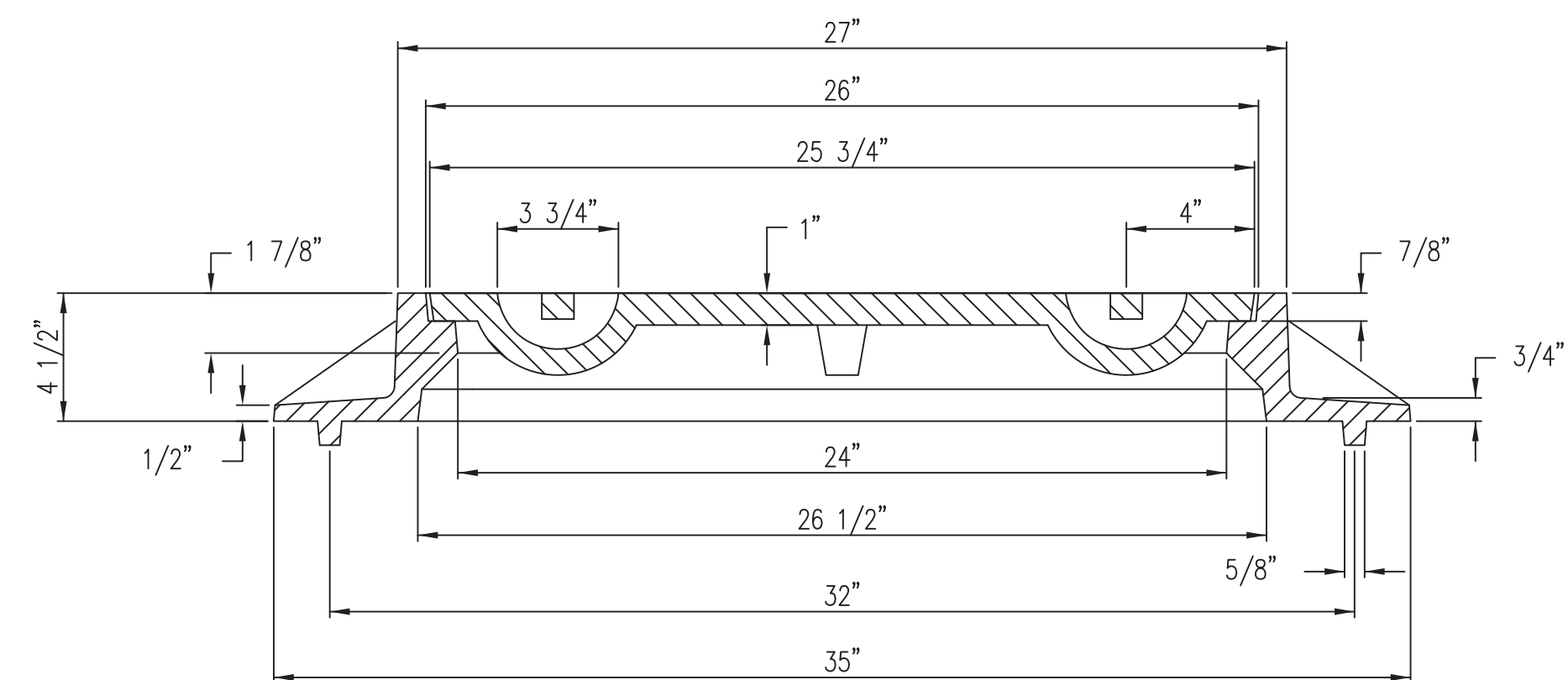
PROJECT NUMBER	OCA NUMBER	DATE

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501



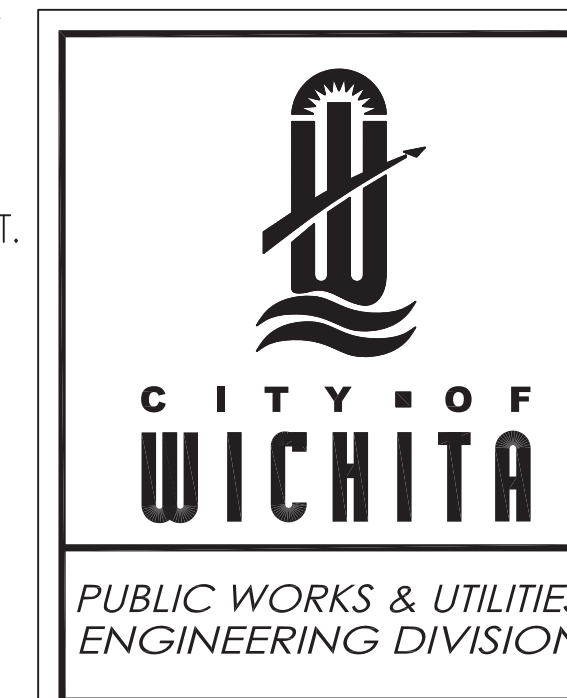
MANHOLE FRAME
DEETER #1261 OR EJIW #1936-Z1

- NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
 2. COVER TO BE DEETER #1261 OR EJIW #1936A.

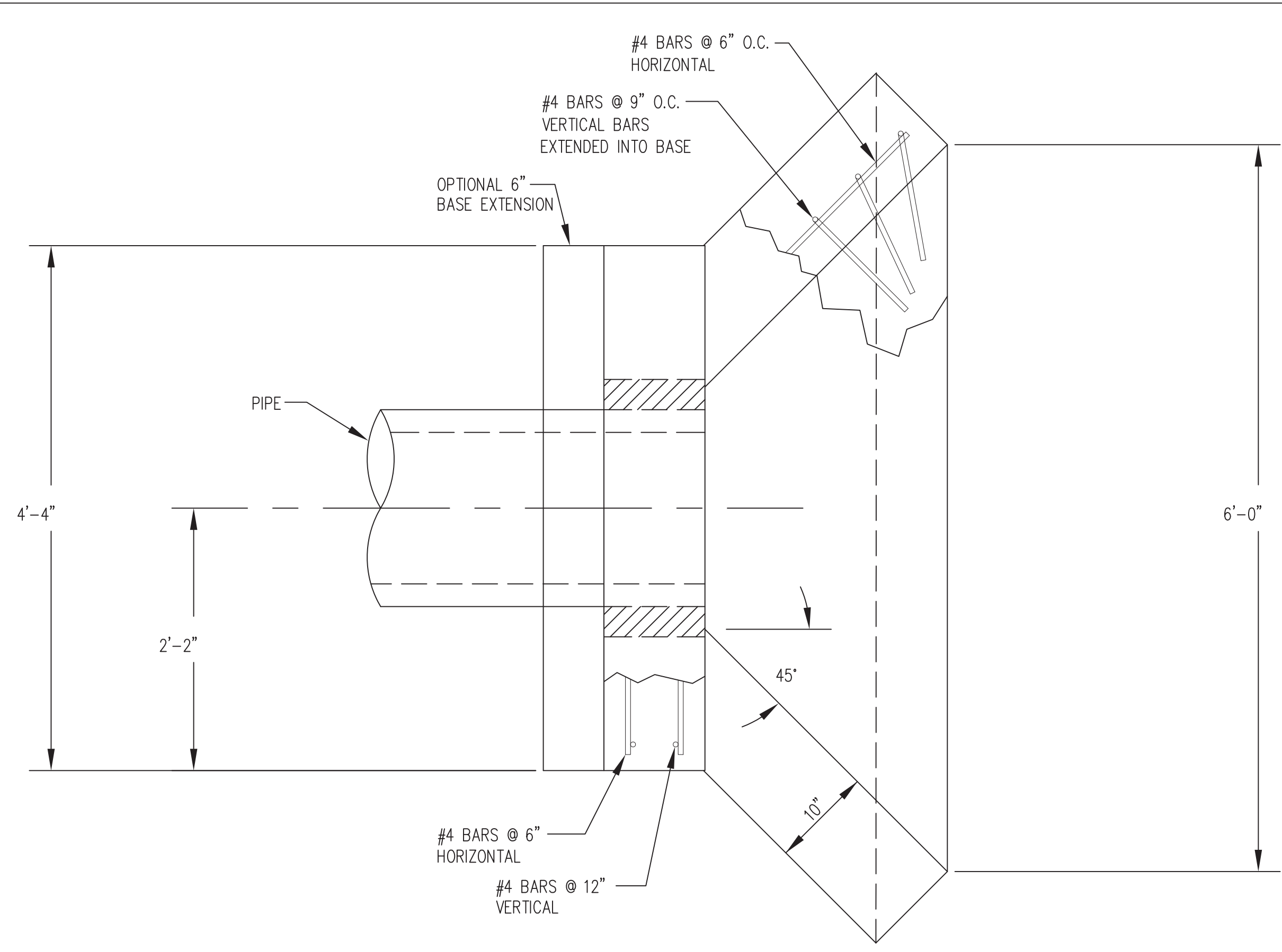


INLET FRAME
DEETER #2014 OR EJIW #1936-Z4

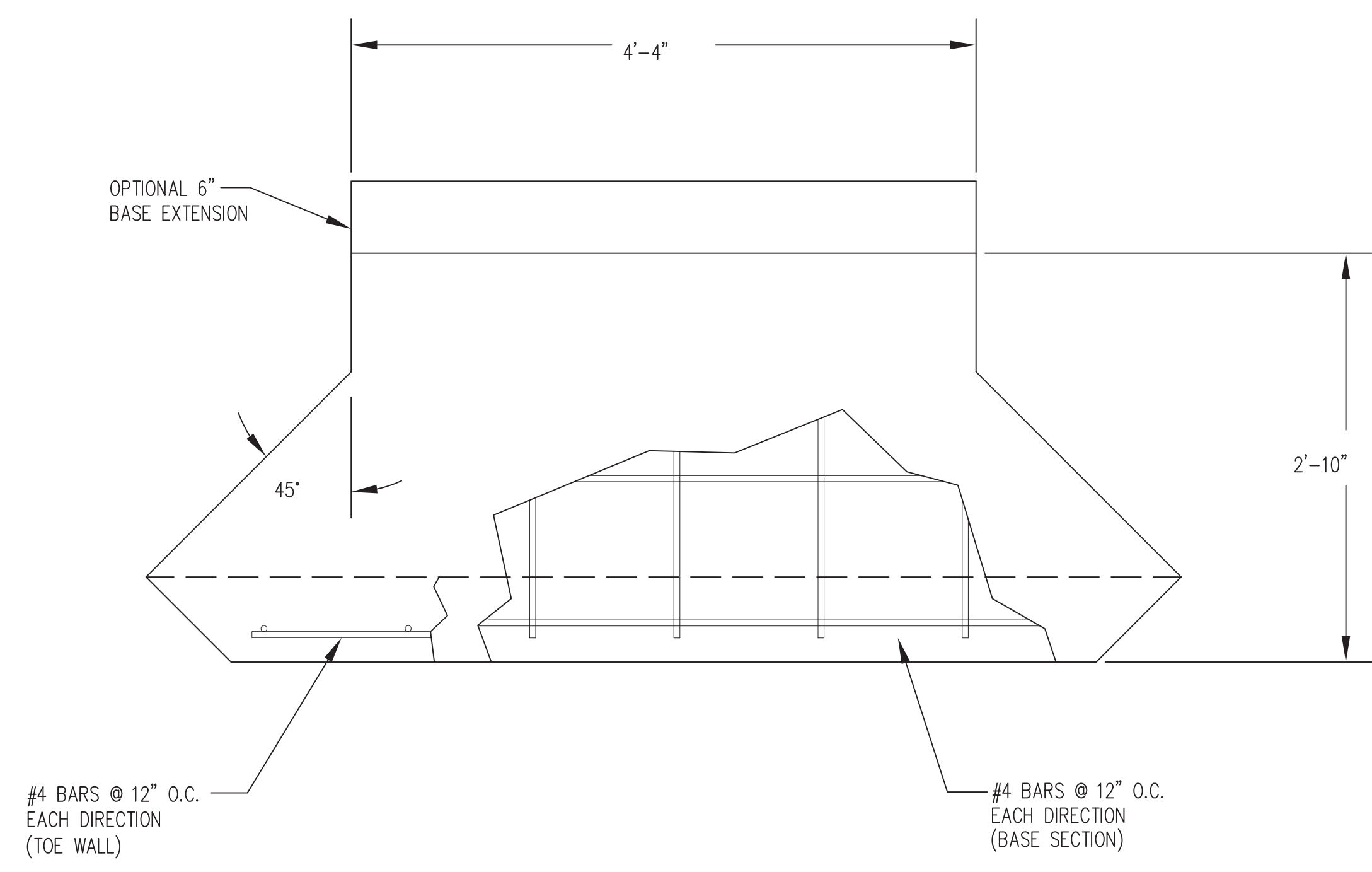
- NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACES.
 2. NOT TO BE USED UNDER PAVEMENT.
 3. COVER TO BE DEETER #1261 OR EJIW #1936A.



MANHOLE/INLET FRAME AND COVER (STORM SEWER)		
CITY ENGINEER GARY JANZEN, P.E.		
PROJECT NUMBER	OCA NUMBER	DATE
		11/2010
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET

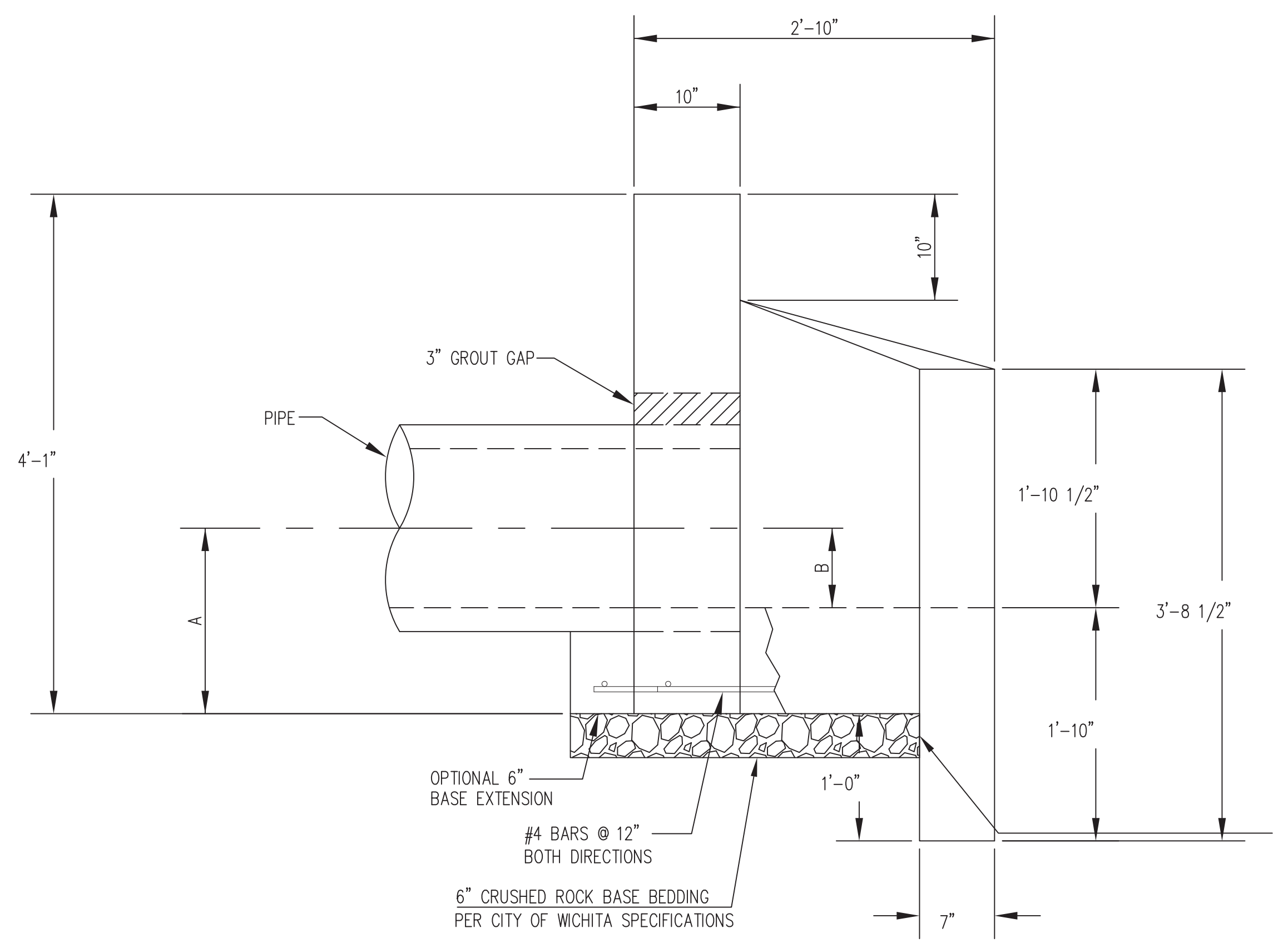


PLAN VIEW

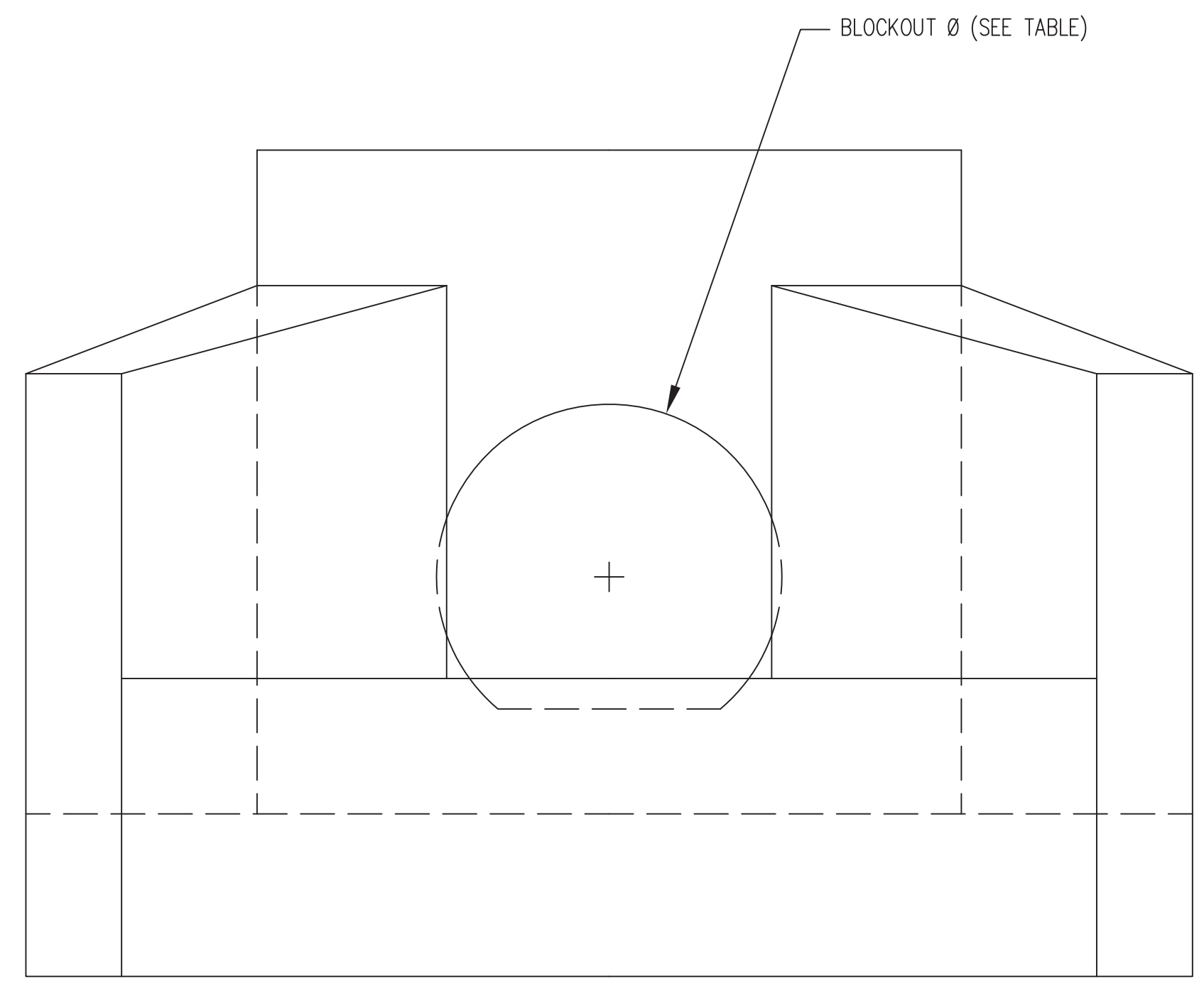


PLAN VIEW
BASE

PIPE Ø	A	B	BLOCKOUT Ø
15"	1'-5 1/2"	7 1/2"	2'-1 1/2"
18"	1'-7"	9"	2'-5"
24"	1'-10"	1'-0"	3'-0"




ELEVATION



FRONT VIEW

HEADWALLS, AS SHOWN, WILL NOT SUPPORT FLAP GATE.

 <p>CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION</p>	<p>HEADWALL DETAILS FOR 15", 18", AND 24" PIPE</p> <p>CITY ENGINEER GARY JANZEN, P.E.</p>		
	PROJECT NUMBER	OCA NUMBER	DATE 11/2010
	CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET