



North Dakota Department of Transportation

Grant Levi, P.E.
Director

Jack Dalrymple
Governor

October 10, 2016

ADDENDUM 4 – JOB 7

TO: All prospective bidders on project SU-3-982(031)035, NHU-3-019(044)155 & NHU-3-020(074)103, Job No. 7 scheduled for the October 14, 2016 bid opening.

The following plan and request for proposal revisions shall be made:

Plan Revisions:

See attached summary from Chad Petersen, PE, KLJ, dated October 10, 2016 for an explanation.

Request for Proposal Revisions:

Remove and replace pages 11 and 13 of 20 of the Proposal pages located at the beginning of the Request for Proposal, with the enclosed pages revised 10/10/2016.

Page 11 of 20:

Item 709 0100 GEOSYNTHETIC MATERIAL TYPE G; quantity increased from 13,010 to 14,244 SY.

Page 13 of 20:

Item 744 0100 POLYSTRENE INSULATION BOARD; quantity increased from 10,422 to 16,822 BD FT.

Add the Materials Pit List for the State Option Pit at N1/2 NE1/4 26-151-68

This addendum is to be incorporated into the bidder's proposal for this project. AASHTOWare Project Bids files should be updated by downloading the addendum file from the Bid Express on-line bidding exchange at <http://www.bidx.com/> and load it into the AASHTOWare Project Bids program.

for

CAL J. GENDREAU – CONSTRUCTION SERVICES ENGINEER
80:plm
Enclosure



◇ October 10, 2016

ADDENDUM 4 JOB 7

TO: All prospective bidders and suppliers on Project NHU-3-019(044)155, NHU-3-020(074)103 & SU-3-982(031)035 scheduled for the October 14, 2016 bid opening.

Revisions for NHU-3-019(044)155, NHU-3-020(074)103 & SU-3-982(031)035:

Remove & replace plan sheets:

- Section 6 Sheet 4 Revised 10/10/2016
- Section 6 Sheet 6 Revised 10/10/2016
- Section 8 Sheet 2 Revised 10/10/2016
- Section 8 Sheet 3 Revised 10/10/2016
- Section 10 Sheet 2 Revised 10/10/2016
- Section 60 Sheet 4-5 Revised 10/10/2016

with the enclosed revised sheets.

Electronic files will be made available through the NDDOT's Plans and Proposals Page.

SECTION 6

SHEET 4:

- Note 714-P01: UNDERDRAINS has been revised.

SHEET 6:

- Note 770-P08: TEMPORARY LIGHTING SYSTEM has been revised.

SECTION 8

SHEET 2:

- The following bid items have been updated:

Spec	Code	Description	Unit	Previous Quantity	Addendum 4 Quantity
709	0100	GEOSYNTHETIC MATERIAL TYPE G	SY	13,010	14,244

SHEET 3:

- The following bid items have been updated:

Spec	Code	Description	Unit	Previous Quantity	Addendum 4 Quantity
744	0100	POLYSTYRENE INSULATION BOARD	BD FT	10,422	16,822

SECTION 10

SHEET 2:

- Quantity of Geosynthetic Material Type G have been updated.



SECTION 60

SHEET 4:

- Quantities of Geosynthetic Material Type G and Polystyrene Insulation Board have been updated.

SHEET 5:

- Quantities of Geosynthetic Material Type G and Polystyrene Insulation Board have been updated.

This addendum is to be incorporated into bidder's proposal for this project.

Sincerely,
KLJ

Chad Petersen

Project Engineer

Enclosure(s): Revised Plan Sheets

-Project #: NHU-3-019(044)155, NHU-3-020(074)103 & SU-3-982(031)035

c: Ardin Striefel, NDDOT

BID ITEMS

Projects: SU-3-982(031)035 (PCN-21609), NHU-3-019(044)155 (PCN-17505), and NHU-3-020(074)103 (PCN-17504)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
065	708	1533	REMOVAL INLET PROTECTION-FIBER ROLL 12IN	EA	7.				
066	708	1540	INLET PROTECTION-SPECIAL	EA	47.				
067	708	1541	REMOVE INLET PROTECTION-SPECIAL	EA	47.				
068	709	0100	GEOSYNTHETIC MATERIAL TYPE G	SY	14,244.				
069	709	0161	GEOSYNTHETIC MATERIAL TYPE S1	SY	104.				
070	714	4115	PIPE CONDUIT 36IN	LF	64.				
071	714	4120	PIPE CONDUIT 42IN	LF	44.				
072	714	9680	PLUG PIPE-ALL TYPES & SIZES	EA	3.				
073	714	9696	EDGEDRAIN NON PERMEABLE BASE	LF	3,612.				
074	714	9705	UNDERDRAIN CLEANOUT RISER	EA	4.				
075	714	9730	UNDERDRAIN PIPE PVC PERFORATED 6IN	LF	400.				
076	722	0100	MANHOLE 48IN	EA	1.				
077	722	0110	MANHOLE 60IN	EA	5.				
078	722	0120	MANHOLE 72IN	EA	2.				
079	722	0130	MANHOLE 84IN	EA	4.				
080	722	0140	MANHOLE 96IN	EA	1.				

BID ITEMS

Projects: SU-3-982(031)035 (PCN-21609), NHU-3-019(044)155 (PCN-17505), and NHU-3-020(074)103 (PCN-17504)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
097	724	0420	HYDRANT-RELOCATE	EA	1.				
098	724	0611	WATER SERVICE LINE 1IN	LF	45.				
099	724	0892	RELOCATE WATERMAIN	EA	1.				
100	724	2120	36IN X 23IN ARCH SANITARY SEWER PIPE	LF	155.				
101	744	0100	POLYSTYRENE INSULATION BOARD	BD FT	16,822.				
102	748	0140	CURB & GUTTER-TYPE I	LF	3,912.				
103	748	0520	CURB-TYPE I	LF	155.				
104	750	0030	PIGMENTED IMPRINTED CONCRETE	SY	306.				
105	750	0100	SIDEWALK CONCRETE	SY	4,078.				
106	750	1000	DRIVEWAY CONCRETE	SY	88.				
107	750	1020	DRIVEWAY CONCRETE 8IN	SY	269.				
108	750	2115	DETECTABLE WARNING PANELS	SF	288.				
109	752	0600	FENCE CHAIN LINK	LF	2,180.				
110	752	0911	TEMPORARY SAFETY FENCE	LF	70.				
111	752	0922	FENCE REMOVE & RESET	LF	1,750.				
112	754	0110	FLAT SHEET FOR SIGNS-TYPE XI REFL SHEETING	SF	68.300				

NOTES

Revised 9/29/16	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised 10/06/16				
Revised 10/10/16	ND	NHU-3-019(044)155 NHU-3-020(074)103 SU-3-982(031)035	6	4

during closure. Construct storm drain, subgrade and aggregate base. Move pedestrian traffic from the east to the west side of ND Hwy 20 as construction operations dictate. Close Hwy 20 for a maximum of 28 days.

Phase 7: ND Hwy 19 & ND Hwy 20: Close ND Hwy 20 between 3rd Street SE and 6th Street NE and close ND Hwy 19 west of 2nd Avenue NW to ND Hwy 20. Set up ND Hwy 20 detour route prior to closure. Maintain pedestrian traffic on ND Hwy 20 and ND Hwy 19 during the closure. Construct PCC paving, curb and gutter and sidewalk. Close ND Hwy 19 and ND Hwy 20 for a maximum of 28 days.

Phase 8: ND Hwy 20: Close 6th Street NE. Close the southbound lane at the intersection of ND Hwy 20 and 6th Street NE. Maintain one lane of traffic in the northbound lane of ND Hwy 20. Install temporary traffic signal. Close the sidewalk west of ND Hwy 20. Maintain Pedestrian traffic on the east side of ND Hwy 20. Construct temporary access to Proz Bar & Grill. Construct storm drain, subgrade, aggregate base, curb & gutter and PCC Paving. Construct Phase 8 in a maximum of 14 days.

Phase 9: 6th St NE: Close 6th Street NE. Close the northbound lane at the intersection of ND Hwy 20 and 6th Street NE. Maintain one lane of traffic in the southbound lane of ND Hwy 20. Install temporary traffic signal. Detour pedestrian traffic. Maintain temporary access to Proz Bar & Grill. Construct storm drain, subgrade, aggregate base, curb & gutter and PCC Paving. Close 6th Street NE for a maximum of 14 days.

The maximum number of traffic control devices required will be paid. No additional compensation will be made for relocation of devices. Asphalt millings may be used to construct temporary pedestrian ramps.

704-P04 TRAFFIC CONTROL: Leave the work area free of all hazards during non-working hours. Hazards include any type of obstruction, drop-offs greater than 2-inches, or steep embankment areas steeper than a 4:1 located within the clear zone. Fill with a temporary 4:1 slope, any drop-offs greater than 2-inches.

704-P05 STATE ROUTE MARKERS: Provide State Route Marker signs for temporary traffic control. State Route Markers may be either the old design or the new state outlined design; however, the all Route Marker signs provided must be of the same type.

Upon project completion, the State Route Marker sign panels will become property of the State. Stockpile sign panels within the project limits. The Engineer will arrange to have the stockpiled panels removed from the project limits.

Include the price of furnishing, installing, maintaining, stockpiling and other incidentals in the contract unit price of "Traffic Control Signs"

704-P06 TRAFFIC CONTROL: Traffic control device quantities are based on the list below. Provide additional devices at no additional cost to the Department.

1. Standard D-704-15; layout A and C
2. Standard D-704-20, layout G
3. Standard D-704-21, layout I
4. Standard D-704-22, layouts K and L
5. Standard D-704-23, layout Q
6. Standard D-704-25, layout V, W, and X
7. Standard D-704-26, layouts EE and FF

706-P01 AGGREGATE LABORATORY: Supply an Aggregate Laboratory with a printer/copy machine. The payment for these items will be included in the price bid for "Aggregate Laboratory".

714-P01 UNDERDRAINS: A system of two underdrain pipes are located from Sta. 5457+35 to 5459+35 as shown in the existing typical sections in Section 30. Replace the east underdrain and connect it to the existing manhole. Replace the west underdrain and connect it to MH 5.

714-P02 Install underdrain in accordance with the detail shown in Section 20 of the plans, located per the typical section in Section 30. Provide SDR 35 PVC underdrain. Include all costs associated with the work required to install the Underdrain, including but not limited to excavation, connections, pipe, labor, drainage aggregate and equipment in the price bid for "Underdrain Pipe PVC Perforated 6IN".

714-P03 UNDERDRAIN CLEANOUT RISER: Include the costs for the labor, equipment and materials necessary to construct the wye, bend, riser, cap, gate valve top section, concrete slab in the price bid for "Underdrain Cleanout Riser".

714-P03 PLUG PIPE: At locations designated on the plans for plug and abandon pipe, blow the pipe full of sand or pump the pipe full of controlled density backfill to prevent any future collapse or failure of the abandoned pipe. Include all costs for labor, materials, and equipment necessary to perform this described work in the price bid for "Plug Pipe – All Types and Sizes".

722-100 INLETS AND MANHOLES: Inlets and manholes were designed with a minimum 4 foot riser height. Fill the bottom of each drainage structure with concrete, up to the lowest invert elevation.

722-P01 MANHOLE SANITARY: Include all labor, materials and equipment to install the new manhole base, external chimney seal, piping, rings, casting, and lid. Manufacture the base from precast, reinforced concrete no less than 8 inches thick. Payment will be per each, paid when installed.

Provide precast, reinforced concrete manholes conforming to the latest revisions of AASHTO M-199. Furnish manholes with a minimum of two, standard 2-inch thick adjusting rings and standard, OSHA approved manhole steps, spaced at 16-inches on center. Align all steps vertically in each manhole. Provide precast manholes with screw type lifting devices cast into the concrete section. Risers and covers shall be included in the price bid for "Manhole Riser _IN".

Provide floating castings equal to Neenah R-1955-1, East Jordan 3025 SELFLEVEL or approved equal. The lids will be self-sealing and have a concealed pick bar. Label the lids SANITARY SEWER. Machine castings and lids to a uniform quality.

Set the manhole base at the proper grade and alignment to provide a smooth transition from the incoming pipes to the outgoing pipes. Bed the manhole base in 6" of 1 ¼" crushed rock to prevent settlement and provide support for the pipe from the manhole edge to the regular trench excavation. Provide a watertight connection between the manhole and the pipe. See Standard Drawing D-722-5 for details.

722-P02 MANHOLE CASTINGS: Install a floating casting on all new or existing manholes that lie within the limits of the new concrete roadway or sidewalk. Install an external chimney seal on all new or existing sanitary manholes located in the roadway. Provide floating castings equal to Neenah R-1955-1, East Jordan 3025 SELFLEVEL or approved equal. Where possible, position casting to avoid falling within a wheel path. Place all castings that lie in the roadway flush to within 1/8 inch below the pavement. Outfit the new manholes, adjusted manholes, or repaired manholes located outside of concrete with the standard casting (see Standard Drawing D-722-5). Include the cost for manhole castings in the price bid for "Manhole Sanitary", "Manhole _IN", "Manhole Repair", and "Adjust Manhole".

This document was originally issued and sealed by Chad A. Petersen Registration Number PE- 4884, on 10/10/16 and the original document is stored at the North Dakota Department of Transportation

NOTES

Revised 9/29/16
Revised 10/10/16

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NHU-3-019(044)155 NHU-3-020(074)103 SU-3-982(031)035	6	6

Cure concrete using curing compound that meets the requirements of ASTM C 309, Type 1.

752-P01 FENCING: Place a temporary chain link fence, with a height of 8 feet, in accordance with Standard Drawing 752-02 prior to removing the existing fence. Move the temporary fence as needed based on construction operations. Include the cost to install, relocate and remove temporary chain link fence in the price bid for "Fence Chain Link".

770-P01 LIGHT STANDARD 8FT MA 40FT MT HT BREAKAWAY: Provide steel, davit type galvanized breakaway light standards. Provide transformer bases and vibration dampeners for the 40' MT HT breakaway light standards. Position light standards so hand holes face the opposite direction of the roadway.

Provide extra wind loading and weight loading capacity for the traffic signal equipment mounted onto light L11 as required for the actual equipment to be installed on the pole. Provide structural calculations and drawings that take into consideration the added equipment and that adhere to section 896 of NDDOT standard specifications. Provide black paint matching the traffic signal standard. Paint to a height of 12', as shown in Standard Drawing D-772-4. The remainder will have a standard galvanized finish.

770-P02 ROADWAY LED LUMINAIRE: Provide LED roadway luminaires with the following specifications: American Electric Lighting, Model ATB2-80BLEDE10-MVOLT-R2-NL-NR. Provide a manufacturer's standard grey exterior finish.

770-P03 PEDESTRIAN LED LUMINAIRE: Provide LED Pedestrian Luminaire with the following specifications: Lithonia Lighting, Model TWP LED 10C 700 40K T3M MVOLT SPD DDBXD. Provide manufacturer's standard black exterior finish.

770-P04 PULL BOXES: Provide polymer concrete type pull boxes. Mark the cover clearly with the word "Lighting" as required. See standard drawing D-770-3 for details. Duct seal all conduits entering and exiting pull boxes.

770-P05 PADLOCKS: Obtain all padlocks from the City of Devils Lake.

770-P06 MARKER TAPE: Install marker tape 5" below finished grade in cable trenches above underground conductors. Provide Marker tape that is 6-inch wide red plastic tape marked "Caution - Buried Electric Cable."

770-P07 REMOVE LIGHT SYSTEM: Remove and salvage light standards, mast arms, luminaires and the feed point designated for removal. Deliver the luminaires, mast arms, standards and feed point equipment to the City of Devils Lake Public Works Department. Provide a 48 hour notice prior to delivery. Dispose of any items deemed unsalvageable.

770-P08 TEMPORARY LIGHTING SYSTEM: Provide temporary lighting where shown in the plans. The temporary lighting shall be established at the start of construction of the shoofly bridge. The existing circuits shall be verified and the lights South of the ND HWY19 and HWY20 intersection shall be maintained until the installation of the permanent lighting as shown in the plans. Provide any additional conductors, conduit and connections as required to maintain the temporary lighting. Include all costs required to provide temporary lighting in the price bid for "Lighting System".

772-P01 REMOVE TRAFFIC SIGNAL SYSTEMS: The Contractor is responsible for removing the existing traffic signal systems at the ND 19/ND 20 and 6th St NE/ND 20 intersections prior to installation of the new signal systems. All existing traffic signal heads with Astro brackets and the 6th St NE/ND 20 traffic signal controller and other cabinet equipment from that intersection will be delivered to the City of Devils Lake Fire Department at 621 College Drive N, Devils Lake, ND. All remaining above ground traffic signal components will be disposed of in accordance with Section 107.17 Removed Materials. Abandon all underground cable and conduit. Include in the price bid for "Traffic Signal

System - Site 1" and "Traffic Signal System - Site 2" all labor and equipment necessary to remove the existing traffic signal systems.

772-P02 TRAFFIC SIGNAL SYSTEM: Include in the price bid for "Traffic Signal System - Site 1" and "Traffic Signal System - Site 2" all labor and equipment necessary for each signal system to be fully operational as shown in the plans upon construction completion. This includes but is not limited to, the installation of the following features where applicable; traffic signal standards and foundation, vehicular heads, video detection system, traffic signal controller and all ancillary hardware (conflict monitor, load switch, flasher, etc.), controller cabinet and foundation, and all cable, conduit, junction boxes, and appurtenances to install the traffic signal systems completely.

772-P03 FEED POINT-COMBO LIGHTING & SIGNAL-PAD MOUNT: Install the feed point at the locations indicated in the plans. Provide underground incoming electrical service. See standard drawings D770-2 and D770-2A along with Section 140 for details.

Coordinate with the Utility for the incoming electrical service. The utility shall be responsible for providing service connections and conductors from the utility transformer to the meter socket located on the feed point cabinet. The utility shall be responsible for any boring or trenching required up to the meter. Provide and install a 200 amp meter socket, with stud type connectors, and mount on the side of the feed point cabinet. Provide and install a 2" conduit sweep in the concrete foundation for the service conductors to the meter socket from a point 24" below grade. Provide rigid steel for all exposed conduit. Any cost imposed by the utility shall be coordinated by the Contractor and paid for by the City of Devils Lake.

Orient the feed points as shown on the plans and as directed by the field Engineer. Provide type 2 and 3 feed points as shown and according to the standard details. Provide a permanent etched label for the exterior feed point cabinet and for the contactors inside the cabinet. Construct the feed point cabinet with a minimum 12 gauge steel. Provide an enclosure with a NEMA 3R rating. Provide doors that are gasketed and capable of utilizing a padlock. Provide all the necessary breakers as shown in the detail and panel schedule. Install the photo cell facing north and design the photo cell to recess into the cabinet. Provide a hand-off-auto test switch to override the photocell control. Duct seal all conduit stubs in concrete foundation. Include all costs associated with the materials, labor, coordination, utility fees, and equipment necessary to furnish and install the feed point and electrical service in the price bid for "Traffic Signal System - Site 1" and "Traffic Signal System - Site 2".

772-P04 CONCRETE FOUNDATION-FEED POINT-TYPE B: Set the top of concrete foundation 6" above the surrounding grade. Provide two spare 2" Schedule 40 PVC conduits in the concrete feed point foundation. Include all costs for labor, materials and equipment necessary for furnishing and installing this item in the price bid for "Traffic Signal System - Site 1" and "Traffic Signal System - Site 2".

772-P05 BATTERY BACK-UP: Equip each traffic controller with an "on-line" type Uninterruptible Power Supply (UPS) that provides power conditioning in both normal and backup mode. Size it to provide backup power to the system for a minimum of 2 hours in full signalized operation and a minimum of 8 hours in flash operation. Provide the UPS with aux contacts to put the system into flash operation. Incorporate full power management and diagnostic function into the UPS.

Provide the UPS with features to automatically provide battery back-up power to the controller system with no interruption when the electric utility power supply de-energizes. Provide a UPS that operates such that it does not provide power to the de-energized incoming electric utility service conductors.

Install the UPS in a temperature and humidity controlled environment. Install the UPS in a separate enclosure on the same pad as the signal controller cabinet. Extend the controller cabinet pad mount foundation

This document was originally issued and sealed by Chad A. Petersen Registration Number PE- 4884, on 10/10/16 and the original document is stored at the North Dakota Department of Transportation

Estimate of Quantities

Revised	9/29/16	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised	10/10/16	ND	NHU-3-019(044)155	8	2
			NHU-3-020(074)103		
			SU-3-982(031)035		

SPEC	CODE	ITEM DESCRIPTION	UNIT	NHU-3-019(044)155 ND 19 (Participating)	NHU-3-019(044)155 ND 19 (Non-Participating)	NHU-3-020(074)103 ND 20 (Participating)	NHU-3-020(074)103 ND 20 (Non-Participating)	SU-3-982(031)035 Detour Route (Participating)	TOTAL
604	9550	PRESTRESSED CONCRETE FASCIA GIRDER	LF	-	-	360	-	-	360
612	0115	REINFORCING STEEL-GRADE 60	LBS	-	-	409,054	-	-	409,054
612	0116	REINFORCING STEEL - GRADE 60 - EPOXY COATED	LBS	-	-	40,782	-	-	40,782
616	5890	STRUCTURAL STEEL	L SUM	-	-	1.00	-	-	1.00
618	0115	UNTREATED TIMBER	MBM	-	-	51.7	-	-	51.7
622	0068	STEEL PILING HP 14 X 89	LF	-	-	12,880	-	-	12,880
624	0123	PEDESTRIAN RAILING	LF	-	-	1,237.4	-	-	1,237.4
624	0124	PEDESTRIAN FENCE	LF	-	-	351	-	-	351
702	0100	MOBILIZATION	L SUM	0.05	-	0.90	-	0.05	1.00
704	0100	FLAGGING	MHR	800	-	1,600	-	200	2,600
704	1000	TRAFFIC CONTROL SIGNS	UNIT	472	-	4,243	-	1,123	5,838
704	1018	LANE CLOSURE-SIGNAL CONTROL/FLAGGING CONTROL	EA	-	-	2	-	-	2
704	1052	TYPE III BARRICADE	EA	4	-	39	-	-	43
704	1060	DELINEATOR DRUMS	EA	12	-	112	-	-	124
704	1067	TUBULAR MARKERS	EA	9	-	79	-	71	159
704	1086	SEQUENCING ARROW PANEL-TYPE B	EA	-	-	3	-	-	3
704	1500	OBLITERATION OF PAVEMENT MARKING	SF	1,215	-	4,269	-	-	5,484
704	3501	PORTABLE PRECAST CONCRETE MED BARRIER	LF	-	-	40	-	-	40
704	3510	PRECAST CONCRETE MED BARRIER-STATE FURNISHED	EA	-	-	62	-	-	62
704	9100	VIDEO MONITORING SYSTEM	EA	-	-	1	-	-	1
706	0500	AGGREGATE LABORATORY	EA	-	-	1	-	-	1
708	1200	SMALL ROCK COVER	TON	-	-	620	-	-	620
708	1531	INLET PROTECTION-FIBER ROLL 12IN	EA	-	-	7	-	-	7
708	1533	REMOVAL INLET PROTECTION-FIBER ROLL 12IN	EA	-	-	7	-	-	7
708	1540	INLET PROTECTION-SPECIAL	EA	5	-	27	-	15	47
708	1541	REMOVE INLET PROTECTION-SPECIAL	EA	5	-	27	-	15	47
709	0100	GEOSYNTHETIC MATERIAL TYPE G	SY	3,378	-	10,866	-	-	14,244
709	0161	GEOSYNTHETIC MATERIAL TYPE S1	SY	-	-	104	-	-	104
714	4115	PIPE CONDUIT 36IN	LF	-	-	64	-	-	64
714	4120	PIPE CONDUIT 42IN	LF	-	-	44	-	-	44
714	9680	PLUG PIPE-ALL TYPES & SIZES	EA	-	-	3	-	-	3
714	9696	EDGEDRAIN NON PERMEABLE BASE	LF	938	-	2,674	-	-	3,612
714	9705	UNDERDRAIN CLEANOUT RISER	EA	-	-	4	-	-	4
714	9730	UNDERDRAIN PIPE PVC PERFORATED 6IN	LF	-	-	400	-	-	400
722	0100	MANHOLE 48IN	EA	-	-	1	-	-	1
722	0110	MANHOLE 60IN	EA	-	-	5	-	-	5
722	0120	MANHOLE 72IN	EA	-	-	2	-	-	2
722	0130	MANHOLE 84IN	EA	3	-	1	-	-	4
722	0140	MANHOLE 96IN	EA	-	-	1	-	-	1
722	0300	MANHOLE SANITARY	EA	-	-	1	-	-	1
722	1100	MANHOLE RISER 48IN	LF	-	-	11.9	-	-	11.9
722	1110	MANHOLE RISER 60IN	LF	-	-	41.9	-	-	41.9

ND Highway 19 &
ND Highway 20

Estimate of Quantities

Estimate of Quantities

Revised	9/29/16	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised	10/05/16	ND	NHU-3-019(044)155	8	3
Revised	10/10/16		NHU-3-020(074)103		
			SU-3-982(031)035		

SPEC	CODE	ITEM DESCRIPTION	UNIT	NHU-3-019(044)155 ND 19 (Participating)	NHU-3-019(044)155 ND 19 (Non-Participating)	NHU-3-020(074)103 ND 20 (Participating)	NHU-3-020(074)103 ND 20 (Non-Participating)	SU-3-982(031)035 Detour Route (Participating)	TOTAL
722	1120	MANHOLE RISER 72IN	LF	-	-	12.2	-	-	12.2
722	1130	MANHOLE RISER 84IN	LF	29.8	-	4.0	-	-	33.8
722	1140	MANHOLE RISER 96IN	LF	-	-	7.1	-	-	7.1
722	3410	MANHOLE REPAIR	EA	1	-	3	-	-	4
722	3510	INLET-TYPE 2	EA	5	-	19	-	-	24
722	3520	INLET-TYPE 2 DOUBLE	EA	-	-	4	-	-	4
722	3760	INLET SPECIAL-TYPE 160IN	EA	-	-	1	-	-	1
722	3910	INLET SLOTTED DRAIN 15IN	LF	-	-	10	-	-	10
722	3920	INLET SLOTTED DRAIN 18IN	LF	-	-	180	-	-	180
722	4020	INLET CATCH BASIN 9IN BEEHIVE	EA	-	-	2	-	-	2
722	6140	ADJUST GATE VALVE BOX	EA	3	-	3	-	7	13
722	6200	ADJUST MANHOLE	EA	3	-	5	-	12	20
722	6240	ADJUST UTILITY APPURTENANCE	EA	-	-	3	-	-	3
724	0420	HYDRANT-RELOCATE	EA	-	-	1	-	-	1
724	0611	WATER SERVICE LINE 1IN	LF	-	-	-	45	-	45
724	0892	RELOCATE WATERMAIN	EA	-	-	1	-	-	1
724	2120	36IN X 23IN ARCH SANITARY SEWER PIPE	LF	-	-	155	-	-	155
744	0100	POLYSTYRENE INSULATION BOARD	BD FT	-	-	16,822	-	-	16,822
748	0140	CURB & GUTTER-TYPE I	LF	1,002	24	2,886	-	-	3,912
748	0520	CURB-TYPE I	LF	-	-	155	-	-	155
750	0030	PIGMENTED IMPRINTED CONCRETE	SY	239	-	67	-	-	306
750	0100	SIDEWALK CONCRETE	SY	1,262	278	2,538	-	-	4,078
750	1000	DRIVEWAY CONCRETE	SY	88	-	-	-	-	88
750	1020	DRIVEWAY CONCRETE 8IN	SY	-	-	269	-	-	269
750	2115	DETECTABLE WARNING PANELS	SF	56	20	212	-	-	288
752	0600	FENCE CHAIN LINK	LF	-	-	2,180	-	-	2,180
752	0911	TEMPORARY SAFETY FENCE	LF	-	-	70	-	-	70
752	0922	FENCE REMOVE & RESET	LF	-	-	1,750	-	-	1,750
754	0110	FLAT SHEET FOR SIGNS-TYPE XI REFL SHEETING	SF	15.7	-	52.6	-	-	68.3
754	0112	FLAT SHEET FOR SIGNS-TYPE IV REFL SHEETING	SF	47.6	-	225.0	-	-	272.6
754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	131.0	-	259.8	-	-	390.8
754	0592	RESET SIGN PANEL	EA	3	2	-	-	-	5
754	0593	RESET SIGN SUPPORT	EA	-	3	-	-	-	3
762	0103	PVMT MK PAINTED-MESSAGE	SF	-	-	-	-	161	161
762	0122	PREFORMED PATTERNED PVMT MK-MESSAGE(GROOVED)	SF	64	-	1,815	-	2,340	4,219
762	0420	SHORT TERM 4IN LINE-TYPE R	LF	4,058	-	26,580	-	-	30,638
762	0422	SHORT TERM 6IN LINE-TYPE R	LF	96	-	-	-	-	96
762	0424	SHORT TERM 8IN LINE-TYPE R	LF	-	-	546	-	-	546
762	0430	SHORT TERM 4IN LINE-TYPE NR	LF	1,338	-	1,818	-	6,634	9,790
762	0434	SHORT TERM 8IN LINE-TYPE NR	LF	-	-	-	-	768	768
762	0436	SHORT TERM 24IN LINE-TYPE NR	LF	-	-	-	-	84	84
762	0440	SHORT TERM MESSAGE-TYPE R	SF	-	-	68	-	-	68

NH Highway 19 &
NH Highway 20

Estimate of Quantities

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NHU-3-019(044)155 & NHU-3-020(074)103 & SU-3-982(031)035	10	2

BASIS OF ESTIMATE

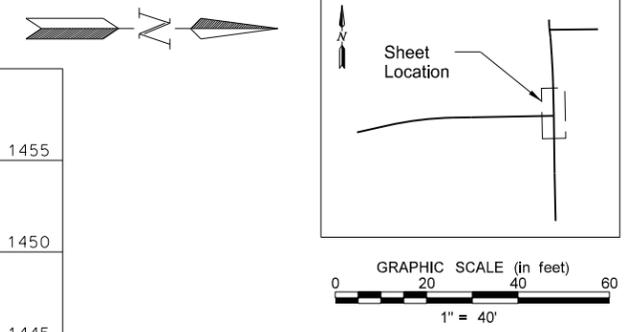
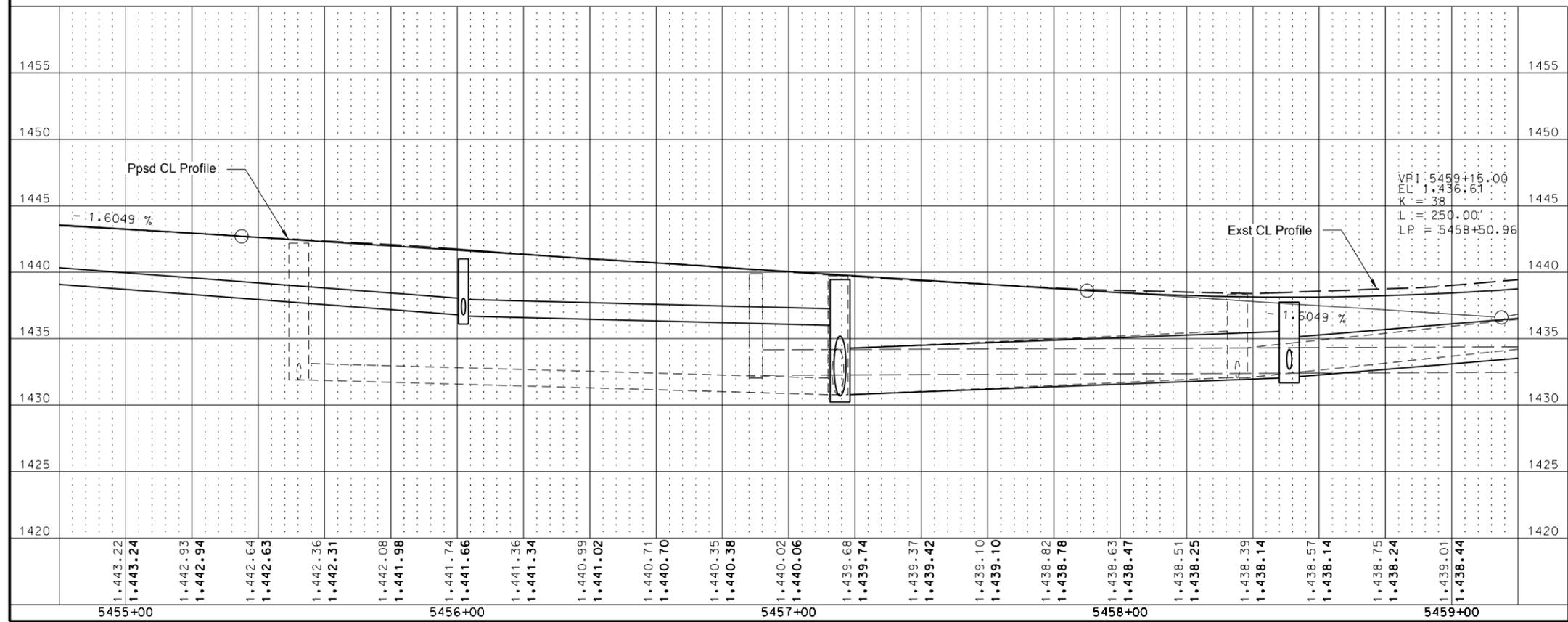
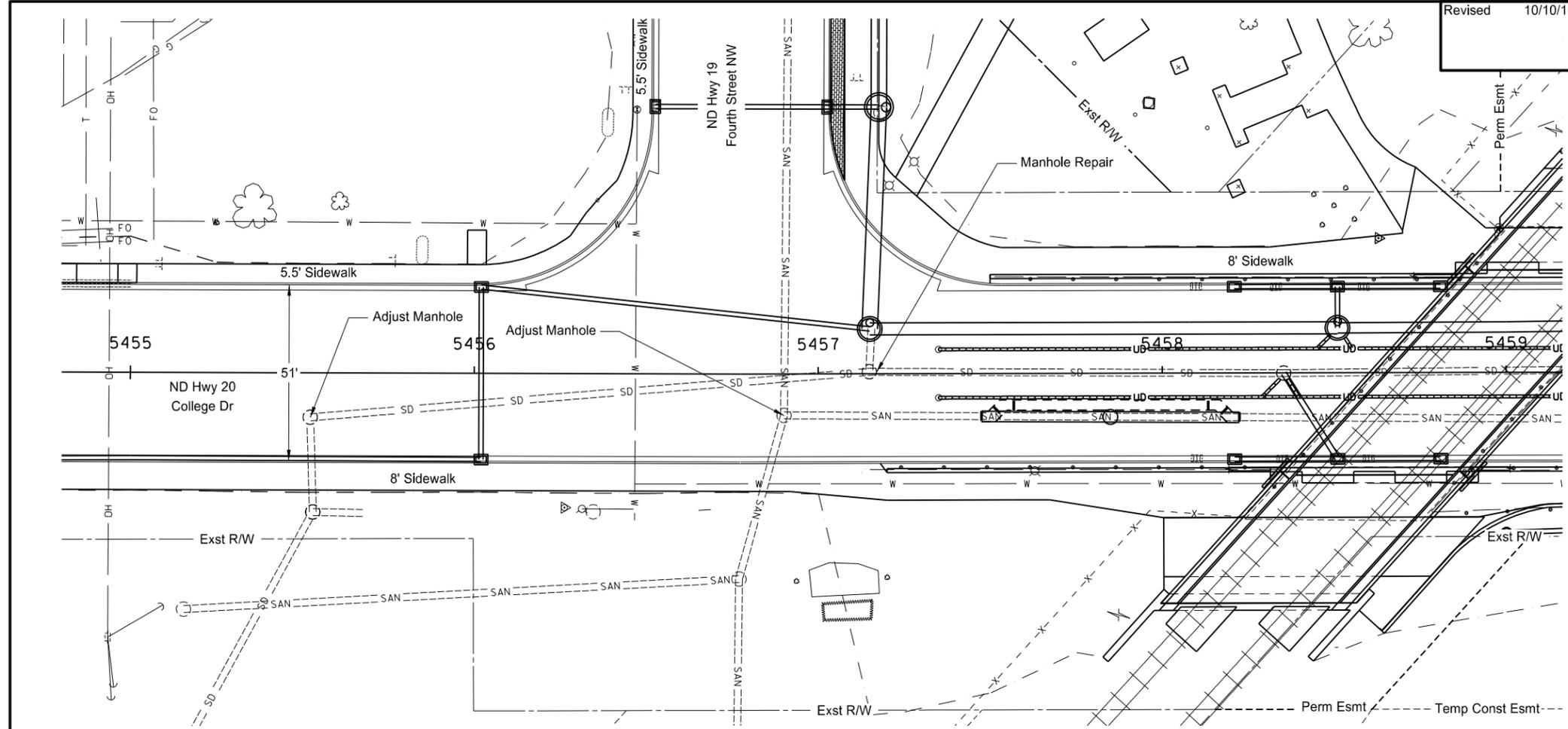
	NHU-3-019(044)155 ND 19 (Participating)	NHU-3-019(044)155 ND 19 (Non-Participating)	NHU-3-020(074)103 ND 20 (Participating)	SU-3-982(031)035 Detour Route (Participating)	Total
Removal of Pavement	Section 40 Sheet 2 = 2215 Ton Section 100 Sheet 25 = 5 Ton Total (ND 19) = 2220 Ton	Section 40 Sheet 2 = 39 Ton Total (ND 19 NP) = 39 Ton	Section 40 Sheet 1, 3 & 4 = 7036 Ton Section 100 Sheet 19 = 1865 Ton Section 100 Sheet 20 = 43 Ton Total (ND 20) = 8944 Ton	-	Total = 11203 Ton
Aggregate Base Course CL 5	Section 20 Sheet 8 = 488 Ton Section 90 Sheet 1 = 1622 Ton Section 100 Sheet 25 = 5 Ton Total (ND 19) = 2115 Ton	Section 90 Sheet 1 = 72 Ton Total (ND 19 NP) = 72 Ton	Section 20 Sheet 8 = 814 Ton Section 20 Sheet 15 = 22 Ton Section 90 Sheet 1 = 4510 Ton Section 165 Sheet 1 = 232 Ton Total (ND 20) = 5578 Ton	-	Total = 7765 Ton
Commercial Grade Hot Mix Asphalt	Section 90 Sheet 1 = 45 Ton Section 100 Sheet 25 = 3 Ton Total (ND 19) = 48 Ton	Section 90 Sheet 1 = 3 Ton Total (ND 19 NP) = 3 Ton	Section 20 Sheet 15 = 12 Ton Section 90 Sheet 1 = 150 Ton Section 100 Sheet 19 = 685 Ton Section 100 Sheet 20 = 15 Ton Section 165 Sheet 1 = 138 Ton Total (ND 20) = 1000 Ton	Section 90 Sheet 9-17 = 1982 Ton Total (Detour Route) = 1982 Ton	Total = 3033 Ton
Geosynthetic Material Type G	Section 20 Sheet 15 = 521 SY Section 90 Sheet 1 = 2857 SY Total (ND 19) = 3378 SY	-	Section 20 Sheet 15 = 867 SY Section 60 Sheet 4 = 1018 SY Section 60 Sheet 5 = 216 SY Section 90 Sheet 1 = 8765 SY Total (ND 20) = 10866 SY	-	Total = 14244 SY
Curb & Gutter-Type 1	Section 90 Sheet 1 = 982 LF Section 100 Sheet 25 = 20 LF Total (ND 19) = 1002 LF	Section 90 Sheet 1 = 24 LF Total (ND 19 NP) = 24 LF	Section 90 Sheet 1 = 2886 LF Total (ND 20) = 2886 LF	-	Total = 3912 LF
Detectable Warning Panels	Section 90 Sheet 1 = 46 SF Section 100 Sheet 25 = 10 SF Total (ND 19) = 56 SF	Section 90 Sheet 1 = 20 SF Total (ND 19 NP) = 20 SF	Section 20 Sheet 15 = 50 SF Section 90 Sheet 1 = 162 SF Total (ND 20) = 212 SF	-	Total = 288 SF

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Revised 10/10/16

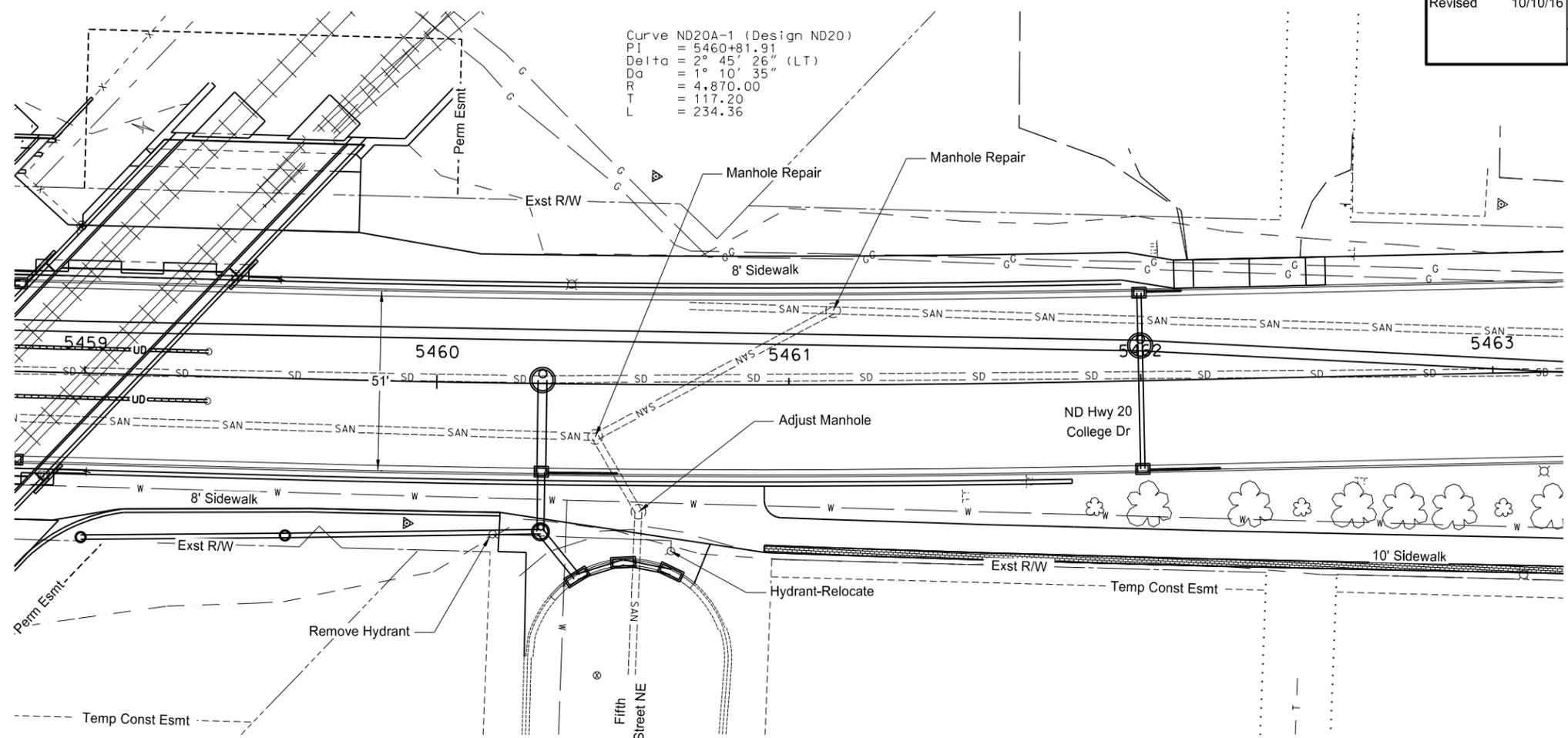
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NHU-3-020(074)103	60	4

Spec	Item Description	Qty	Unit
709 0100	GEOSYNTHETIC MATERIAL TYPE G Sta. 5457+35 to 5459+00	1018	SY
714 9696	EDGEDRAIN NON PERMEABLE BASE Sta. 5455+00 ~ 26' Rt to 5459+00 ~ 26' Rt Sta. 5455+00 ~ 26' Lt to 5456+48.70 ~ 57.93' Lt Sta. 5457+06.52 ~ 57.81' Lt to 5459+00 ~ 26' Lt	400 162 207	LF LF LF
714 9705	UNDERDRAIN CLEANOUT RISER Sta. 5457+35 ~ 7' Lt Sta. 5457+35 ~ 7' Rt	1 1	EA EA
714 9730	UNDERDRAIN PIPE PVC PERFORATED 6IN Sta. 5457+35 ~ 7' Lt to 5459+00 ~ 7' Lt Sta. 5457+35 ~ 7' Rt to 5459+00 ~ 7' Rt	165 165	LF LF
722 3410	MANHOLE REPAIR Sta. 5457+15 ~ CL	1	EA
722 6200	ADJUST MANHOLE Sta. 5455+52 ~ 15' Rt Sta. 5456+90 ~ 12' Rt Sta. 5458+35 ~ CL	1 1 1	EA EA EA
744 0100	POLYSTYRENE INSULATION BOARD Sta. 5457+35 ~ 7' Lt to Sta. 5459+00 ~ 7' Lt Sta. 5457+35 ~ 7' Rt to Sta. 5459+00 ~ 7' Rt	5280 5280	BDFT BDFT

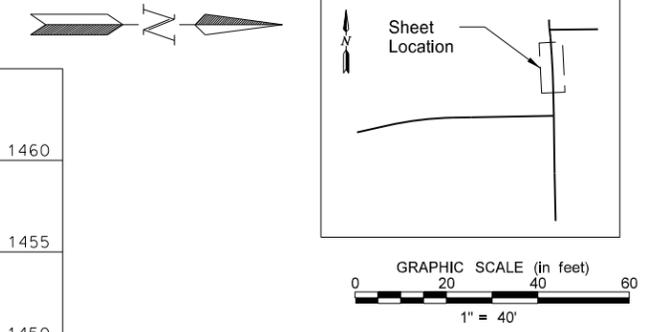
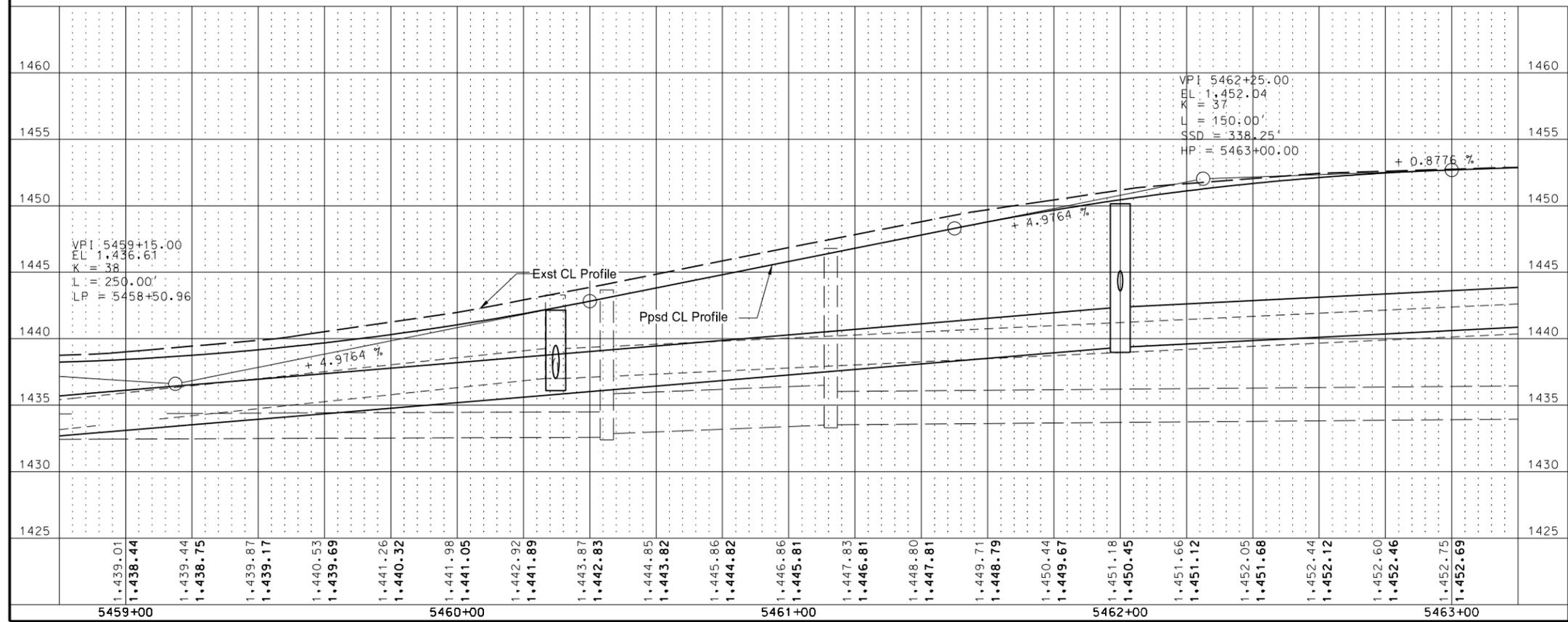


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 Matt Lange,
 Registration Number
 PE- 6870,
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 North Dakota Department
 of Transportation

ND Highway 20
 Plan & Profile
 Sta. 5455+00 to Sta. 5459+00



Spec	Item Description	Qty	Unit
709 0100	GEOSYNTHETIC MATERIAL TYPE G Sta. 5459+00 to 5459+35	216	SY
714 9696	EDGEDRAIN NON PERMEABLE BASE Sta. 5459+00 ~ 26' Rt to 5463+00 ~ 26' Rt Sta. 5459+00 ~ 26' Lt to 5463+00 ~ 26' Lt	400	LF
714 9705	UNDERDRAIN CLEANOUT RISER Sta. 5459+35 ~ 7' Lt Sta. 5459+35 ~ 7' Rt	1	EA
714 9730	UNDERDRAIN PIPE PVC PERFORATED 6IN Sta. 5459+00 ~ 7' Lt to 5459+35 ~ 7' Lt Sta. 5459+00 ~ 7' Rt to 5459+35 ~ 7' Rt	35	LF
722 3410	MANHOLE REPAIR Sta. 5460+45 ~ 15' Lt Sta. 5460+58 ~ 36' Rt	1	EA
722 6200	ADJUST MANHOLE Sta. 5461+13 ~ 21' Lt	1	EA
724 0420	HYDRANT-RELOCATE Sta. 5460+67 ~ 67' Rt	1	EA
744 0100	POLYSTYRENE INSULATION BOARD Sta. 5459+00 ~ 7' Lt to Sta. 5459+35 ~ 7' Lt Sta. 5459+00 ~ 7' Rt to Sta. 5459+35 ~ 7' Rt	1120	BDFT



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ND Highway 20
Plan & Profile
 Sta. 5459+00 to Sta. 5463+00

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

MATERIALS PIT LIST

GENERAL NOTES

NOTES: All pit data for the **October 14, 2016** bid opening has been carefully prepared, and is believed to be correct insofar as reliable preliminary pit information can reasonably be obtained. The contractors are advised to check all pit information before bidding.

It is recommended all bidders discuss pertinent pit data with the Materials and Research Engineer prior to the bid opening. Information such as field notes, field loggings, and comments may not be included in the materials pit list or boring logs. This additional information if present would be in the respective pit file at the Materials and Research Division.

Field logging by prospecting crews may list silt, clay, or silty clay. Our test hole plat will show silt-clay for those listings because the Department does not test to determine what percent is clay and what percent is silt.

Each pit shall be operated to prevent waste and to make the best use of the deposit and to produce a uniform gradation for the item of work under construction. Usually, the material will be removed to the full width and depth of the deposit. The purpose is to exhaust the portion of the pit being worked so the stripping or topsoil can be pushed into this exhausted area and smoothed, thereby eliminating the necessity of covering unused material in the pit unless the owner agrees otherwise.

In the use of pits, the contractor is required to comply with all federal, state, and local laws and regulations.

In the use of department-owned or optioned pits, the contractor shall fulfill all obligations imposed on the Department under the Department's options or agreements.

L.A. Abrasion 20.1% Combined Sample

*Plus No. 4 fraction - percent by weight of total sample

**Minus No. 4 fraction - Plus No. 30 fraction - percent by percent by weight of total sample

***In total sample

<u>Size</u>	<u>Aggregate Type</u>	<u>Sieve</u>	<u>Water Absorption Areas A-E</u>	<u>Water Absorption Areas F-P</u>
-5/8" +No. 4	natural	+ No. 4	2.4 %	1.5 %
Minus No. 4	natural fines	- No. 4	3.0 %	2.8%

NOTE: The water absorption data is to be used for information purposes. Water absorption numbers may vary throughout the pit. The contractor shall be responsible for verifying the actual absorption prior to using the material in the project. We broke the pit into two areas Pit A has testholes 1-51 and has areas A-E in it. We figured this deposit has 161,488 ton in it. It has a very boney layer that ranges from three to six feet and consists of rock from 4" to 8" with an occasional 10" rock, this layer could have 60%-80% rock with most of it being 4" to 8". This boney layer looks to be on the dirty side, under this layer the fines seem to clean up. Pit B has testholes 52-145 and areas F-P in it. We figured this deposit has 355,182 ton in it. The material in this part of the pit is a lot more consistent and has less oversize rock from 4" to 8" with most oversize being the 4" type. This pit has a high percentage of rock from 2" to 4". As you get closer to the creek the material seems to get dirtier. You don't have to go very far from the creek to get into very good clean material. This deposit was also shown for project SS-3-019(065)139 and tied projects and they will have priority in use. Previously awarded projects will have priority in use of materials and contractors must contact companies that are awarded these projects for information on availability. Material was mined in 2016 and we are unsure of how much was mined.

NDDOT Material Source Certificate of Approval is attached at the end of this job pit list.

Interested bidders are advised to investigate all the details concerning these deposits to their own satisfaction before considering them for bidding

NDDOT Material Source Certificate of Approval

BE-1108



NNE Sec 26; SSE Sec 23; T151 R68

County: Benson

Conditions:

This location is approved for use, provided all avoidance areas shown on the map are avoided, and any Conditions listed above are complied with. NDDOT advises that all applicants (contractors or their representatives) may be subject to meeting certain legal responsibilities pursuant to one or more of the following authorities administered by the USFWS: Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.); Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.); and Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250). It is unclear at this time what effects, if any, material source activities may have on plants, fish, and/or wildlife species protected by the above-mentioned Acts. It is the responsibility of the applicants and/or any individual conducting activities at any approved site to fulfill the requirements of these Acts.

This approval does not imply landowner permission to acquire material at this location. An agreement with the landowner is still necessary. The contractor will be responsible for any impacts to wetlands, including permitting those impacts and mitigating the loss of the wetlands. As with all projects, if cultural artifacts and/or features (e.g., stone tools, fire hearths, stone circles, burials) are encountered, provisions outlined in Section 107.04 of the Standard Specifications for Road and Bridge Construction shall be followed.

